State Composting Regulations
June 2009

Arizona	Maine	Ohio
Arkansas	Maryland	Oklahoma
California	Massachusetts	Oregon
Colorado	Michigan	Pennsylvania
Connecticut	Minnesota	Rhode Island
Delaware	Mississippi	South Carolina
Florida	Missouri	South Dakota
Georgia	Montana	Tennessee
Hawaii	Nebraska	Texas
Idaho	Nevada	Utah
Illinois	New Hampshire	Vermont
Indiana	New Jersey	Virginia
Iowa	New Mexico	Washington
Kansas	New York	West Virginia
Kentucky	North Carolina	Wisconsin
Louisiana	North Dakota	Wyoming

Biosolids Processing Facilities

"Biosolids" are defined as sewage sludge. Biosolids facilities are facilities that process biosolids (i.e., composting facilities, etc). The U.S. EPA has set national standards for biosolids use and disposal (40 CFR Part 503).

- 40 CFR 503 - national standards for use and disposal of biosolids.

Biosolids facilities must apply for plan approval when pertinent department rules are promulgated. Currently, these types of facilities must submit a notice, and an aquifer protection permit (APP) determination of applicability to ADEQ, and operate according to minimum operating standards.
Pursuant to A.A.C. R18-9-1004, any person intending to land apply bulk biosolids must register with ADEQ. Interested parties may download the registration form. These land application projects are not considered solid waste facilities if the biosolids are applied in accordance with sludge application requirements.

- A.A.C. R18-9-1004 - Applicator Registration, Bulk Biosolids. Page down to 1004.

Biosolids Land Application and Supplemental Request Form

See also:

Related Statutes and Rules

Biosolids/Land Application of Biosolids

Composting Facilities

Once composting facility design and municipal solid waste operational rules are developed, plan approval will be required for sludge and composting facilities. Until that time, these facilities shall submit a notice to ADEQ. In addition, composting facilities may be subject to aquifer protection permit requirements, if there is potential for discharge of pollutants to the groundwater. Composting facilities must operate according to minimum operating standards.

Chapter 8 Composting Facilities

Reg.22.801- Applicability And Exemptions

(a) Applicability - This Section regulates the construction and operation of composting facilities for yard waste, source separated organic wastes and other solid waste that may be approved by the Department for composting. Except for the permit exemptions provided herein, no person shall construct or operate a composting facility without first having obtained a permit or general permit authorization pursuant to this regulation.

(b) Acceptable Compostable Wastes - Only nonhazardous materials as defined by 40 CFR 261 and Department Regulation No. 23 shall be approved for composting. Compost materials shall be suitable for the proposed process and end use of the compost. Acceptable materials include:

(1) Yard waste and other vegetative materials such as grass clippings, leaves, and shredded or chipped brush, and tree prunings;

(2) Other organic waste including animal manure, food wastes, food processing wastes, grease trap waste, organic process wastes, septage and sewage sludge.

(3) Solid waste including household garbage and nonhazardous commercial wastes that are amenable to treatment by composting.

(c) Unacceptable Wastes - Regulated medical waste, waste containing polychlorinated biphenyls (PCB's), asbestos containing waste, and hazardous waste from conditionally exempt small quantity generators shall not be used in a composting operation. Nonhazardous industrial wastes not identified in paragraph (b) above are presumed unacceptable for composting . An applicant may overcome that presumption by submitting technical data with the application or otherwise demonstrating that the waste can be successfully treated by composting.

(d) Sewage Sludge - The composting of sewage sludge shall conform to the requirements of 40 CFR 503 and other regulations promulgated by the Pollution Control and Ecology Commission.

(e) Exemptions - The following solid waste management facilities and operations are exempt from permitting under this Section:

(1) The composting of less than 50 (fifty) tons or 500 (five hundred) cubic yards per year of incoming yard waste, silvacultural activities such as tree prunings and land clearing debris, and agricultural waste or other approved wastes not subject to the limitations of paragraph (c). (Assumption: 1 (one) cubic yard of loose, unshredded yard waste excluding manures weighs 200 pounds.) provided:

(i) The process follows acceptable methods of composting and is developed, operated, and maintained in a safe, nuisance free manner,

(ii) Prior to the commencement of construction, a written notice is provided to the Department describing the facility location, a description of the operation of the facility, and the intended end use for the compost.

(2) Small composting operations conducted by an individual treating yard and organic wastes taken solely from that individual's personal residence or property. This exemption may be revoked in the event that the composting operation becomes a nuisance to other persons or property owners either adjacent to or in the vicinity of the composting operation.

(3) Composting facilities that receive and treat only animal manures, agricultural wastes, yard wastes and wood wastes if the facility is operated in conjunction with and on the same property as a confined animal facility. Water Division permitting or authorization may be required in such instances.

(4) Composting facilities which exclusively receive and treat organic plant wastes from a nursery operation.

(5) The recovery and use of chipped, shredded or processed wood waste, excluding yard waste, for reuse as a mulch, composting material or other beneficial use.

Reg.22.802- Composting Facility Classifications

(a) Applicability - Composting Facilities shall be classified by the type of materials received and treated.

(1) Facilities that receive and treat only wastes identified in Reg.22.801(b)(1) shall be classified as Type Y compost facilities. Operations of Type Y facilities shall be covered under a General Permit.

(2) Facilities that receive and treat only source separated organic wastes, such as paper, food wastes, food-processing wastes, other compostable materials, or yard waste in combination with these wastes shall be classified as Type O compost facilities.

(3) Facilities that receive and treat mixed solid wastes such as household garbage, nonhazardous commercial wastes, or yard waste or source separated organic wastes in combination with these wastes shall be classified as Type S compost facilities.

(4) Facilities that receive and treat municipal sewage sludge in combination with wastes in paragraphs (1) and (2) above shall be classified as type O compost facilities. Facilities that receive and treat sewage sludge with wastes in paragraph (3) above shall be classified as type “S” facilities.

(b) The design, operation and reporting requirements contained in this chapter are identical for Type O and Type S composting facilities.

Reg.22.803- Location Restrictions And Siting Requirements

(a) Applicability - Composting facilities as specified shall meet the following requirements:

(1) Bird Hazards - Type O and Type S facilities located within 10,000 feet (3,048 meters) of any airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any airport runway end used by only piston-type aircraft shall be designed and operated in a manner that will not pose a bird hazard to aircraft.

(2) Flood Hazards - Type CY, Type CO, and Type CS facilities shall be designed and operated in manner that will not restrict the flow of the base flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health, wildlife, or land or water resources.

(3) Wetlands - Applicants for new Type Y, Type O, and Type S facilities and expansions to the permitted area shall demonstrate that the facility or facility expansion is not located in wetlands, or if it is, that it is in compliance with the provision of the Clean Water Act and implementing regulations. To demonstrate compliance the applicant must provide a wetlands delineation and any permit that may be required by the appropriate agency with jurisdiction for the proposed site. Where indicated by site characteristics, Type Y facilities may also be required to document compliance.

(4) Local Zoning - Type Y, Type O, and Type S facilties located within a municipality or county that has adopted restrictions on sites in conjunction with a comprehensive county-wide land use plan as provided in Reg.22.202, specific geographic site approval from the government(s) of jurisdiction shall be obtained by the applicant for submission to the Department with the pre-application.

(5) Setback Distances - Composting areas for all facilities placed in service after May 7, 1995, as measured from the edge of any composting area, or area used for storing in-coming materials or finished compost, shall not be located within:

(i) Fifty (50) feet of the property boundary;

(ii) One hundred (100) feet from a naturally occurring surface water body, stream or streambed; and

(iii) Two hundred (200) feet to an existing residence, place of business or drinking water supply not owned or leased by the applicant. Existing residences, businesses and water supplies shall be determined at the time in which notice is filed with the regional solid waste management district or a preapplication is filed with the Department, which ever comes first.

(b) Groundwater and Bedrock Separation Distances - Type O and S facilities shall not be located in areas where the seasonal high ground water is less than five feet from the top of the proposed compost floor system surface or where bedrock lies less than 24 inches below the top of the proposed compost pad surface. (c) Solid Waste Management District Notification - Applicants for composting shall provide notice to the Solid Waste Management District in which the facility is proposed to be located prior to submitting an application to the Department. In addition to the requirements of this Chapter, applicants for a permit shall comply with any District rules regarding the siting, design, or operation of solid waste management facilities and any applicable comprehensive local zoning requirements.

Reg.22.804- Application Requirements

(a) Application Procedures - Except as provided in this Chapter, applications for an individual permit for composting shall conform to the requirements of Regulation Number 8, Administrative Procedures, and this section. Applicants for coverage under the general permit program shall conform to the procedures established under the general permit program.

(b) Application Contents - An application for a composting permit shall include the following:

(1) The classification of the proposed facility;

(2) Proof of ownership or control of the site and proposed entity responsible for operation and maintenance of the composting site plant;

(3) A map or aerial photograph indicating land use and zoning within 1/2 mile of the facility showing all residences, structures, surface waters, public and private water supply sources, access roads, railroads, airports, historic sites, and other existing features in the project area;

(4) Maps indicating the existence of any regulated wetlands or floodplains on or adjacent to the site and, for Type CS facilities that accept putrescible wastes, any airports within 10,000 feet of the site;

(5) A site plan map that delineates:

(i) The proposed composting areas including any staging and storage areas for incoming materials and completed compost;

(ii) Property boundary locations, the location of existing and proposed access roads, on-site roads and other site improvements;

(iii) Site topography, showing contours, existing and proposed drainage characteristics including any run-on and run-off control systems that will be constructed;

(6) Type O and Type S facility applications require permit plans and specifications, prepared by a professional engineer registered in the State of Arkansas clearly showing and describing the facilities to be constructed. The design shall include or address all the operating requirements of Reg.22.805 and design requirements of Reg.22.806. A design narrative including calculations, rationale, and other documentation necessary to show compliance with these requirements shall accompany or be included in the permit specifications;

(7) All Type O and Type S composting facilities shall submit a geotechnical report that describes site conditions to a depth of at least ten feet, below existing ground surface, as determined from existing data or supplemented by on-site investigations. The geotechnical report shall, at a minimum, include a characterization that describes the site soil type, bedrock characteristics, and seasonal high water table. The site characterization information shall include the following:

(i) Soil type - the thickness and aerial extent shall be determined through the excavation of test pits or borings. Specific geotechnical testing of soil units may be required to ensure insitu soil appropriateness for the proposed facility design and operation.

(ii) Bedrock characteristics - bedrock lithology and depth should be determined through the excavations of test pits or borings. Data from existing excavations may be used

if they are of sufficient detail and quality. Additional studies may be necessary if initial characterization indicates the presence of any geologic/geotechnical conditions which may adversely affect or be affected by the proposed facility.

(iii) Seasonal high water table - depth to the seasonal high water table (if less than ten feet) beneath the proposed facility shall be determined through the excavations of test pits or borings. Also, aquifer properties such as the rate and direction of water movement must be determined. Data from existing excavations or published reports may be used if they are of sufficient detail and quality.An operating plan meeting the following requirements for each type of facility:

(i) Type Y facilities shall have a written operating narrative that addresses at least the following components:

(A) Description of the waste to be received;

(B) Designation of persons responsible for operation, control and maintenance of the facility;

(C) Methods for controlling the types of waste received;

(D) Methods of removing and recovering noncompostable materials for recycling or disposal including the removal, storage, and disposal of any hazardous wastes;

(E) Methods to minimize, manage and monitor odors;

(F) Runoff and NPDES storm water control measures;

(G) Description of the compost method to be utilized:

(H) Plans for marketing or distribution of the finished compost.

(ii) Type O and Type S facilities shall have a written operating plan that includes or addresses the following components:

(A) A description of the anticipated types, quantity, and sources of waste to be received and a description of any additives used in the process;

(B) Designation of persons responsible for operation, control, and maintenance of the facility;

(C) Methods for measuring incoming waste;

(D) Methods to control the types of waste received to include regular inspection procedures;

(E) Methods for removing and recovering for recycling or disposing of noncompostable wastes from the incoming waste stream, including procedures for removal, storage and disposal of any hazardous wastes;

(F) Methods to process incoming yard waste and finished compost;

(G) A description of the compost method to be utilized and the methods to maintain biological conditions, and to minimize, manage, and monitor odors;

(H) Leachate and NPDES storm water control measures;

(I) Vector, dust and litter control measures;

(J) Contingency operations plan that specifies the responsibilities and measures in the event of equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, including the designation of permitted disposal sites for incoming wastes, leachate, and for hazardous wastes;

(K) Plans for monitoring, sampling and testing the composting materials for process control and product quality assurance as specified inReg.22.806;

(L) Plans for marketing or utilization of the finished compost.

(9) A closure plan meeting the following requirements for each class facility:

(i) The closure plan shall contain a schedule and description of the steps necessary to close the facility. Included in the plan shall be a detailed estimate of the cost required for a third party to perform the closure activities. The plan shall also include the following provisions:

(A) Periodic updates to the plan as determined by the Department;

(B) The Department shall be notified in writing 60 days prior to the proposed termination date of the facility;

(C) Within 10 days of ceasing operations, all residuals, waste, etc. shall be removed from the site and disposed. The facility will then arrange for a final cleaning of any containers, equipment, machines, floors, and facility surfaces having come in contact with source-separated organic waste or solid waste.

Reg.22.805- Operational Requirements

(a) Common Requirements - Requirements common to all composting facilities:

(1) The operation shall be conducted in a manner which precludes pollution, public health hazards, nuisances, odors and the harborage of vectors;

(2) Operation of the facility shall follow acceptable methods of composting which result in the aerobic biochemical degradation of the organic material received;

(3) All operations shall be performed by licensed on-site operators who are certified in accordance with Regulation No. 27 of the Commission during all hours of operation, and access to the facility shall be prohibited during nonoperating hours.

(b) Type Y Operating Requirements:

(1) A written operating record shall be maintained in accordance with Reg.22.808(a).

(2) The operation shall conform to an approved written operating narrative that includes or addresses the requirements of this Chapter.

(c) Type O and Type S Operating Requirements:

(1) The composting of sewage sludge shall meet the criteria for a process to further reduce pathogens (PFRP) and vector reduction as provided by 40 CFR § 503.

(2) The facility shall monitor and document the temperature of composting material to insure that pathogen reduction criteria are met. Temperature readings shall be recorded each operating day during the active composting period. Once the pathogen and vector reduction requirements have been met or exceeded, monitoring may occur less frequently;

(3) In order to minimize odors, the attraction of vectors and percolation of liquid waste through soils at the site, liquid and semi-liquid wastes, sludges, sewage sludge (biosolids) and septage shall be mixed with bulking agents or compost material as soon as practicable on the day they are received unless the operator satisfactorily demonstrates that severe conditions prohibit such activities. In any event, all incoming waste shall be incorporated into the composting process within a maximum of three days such that the liquid or sludge is promptly absorbed and not allowed to flow as free liquid from the bulking material or from the compost windrows. Otherwise, the waste shall be disposed of at a permitted landfill at the end of the 3 (three) day period.

(4) Stored, finished compost that is not sold within 6 months shall be removed or reprocessed for use or sale;

(5) A written operating record shall be maintained in accordance with Reg.22.808(b).

(6) The operation shall conform to an approved written operating plan that includes or address the requirements of this Chapter.

Reg.22.806- Design Requirements

(a) Class Y facility design must include the following:

(1) A general schematic of the proposed process including the proposed receiving, processing, production, curing and storage areas.

(2) The composting area shall have a surface that can withstand heavy equipment loads, and shall be sloped to prevent ponding.

(3) Stormwater management controls to meet State and Federal regulations and to prevent stormwater run-on from entering receiving, processing, curing, or storage areas.

(4) Site access and security measures to include barriers to unauthorized entry and dumping, all-weather access roads and signage.

(5) Methods for odor, noise, dust, vector, and litter control.

(6) Sufficient capacity to handle incoming waste and the storage of 6 months production of finished compost and methods to handle and remove unacceptable wastes delivered to the facility.

(b) Type O and Type S facilities shall be designed and certified by a professional engineer registered in the State of Arkansas and the design must include the following:

(1) A flow diagram of the proposed processing steps including an estimated mass balance of material received, residuals generated, recyclable items recovered and finished compost produced.

(2) A description and depiction of proposed equipment

(3) A low permeability composting floor system for storage of incoming waste and active composting areas. The floor system shall consist of a subbase of compacted clay, treated soil or other impermeable material with a permeability of 1×10^{-7} cm/sec or less and, for all new Type S facility applications and expansions after the effective date of this regulation, a minimum thickness of 12 inches, overlain by cement treated soil, stone or gravel base course, asphalt, concrete, compacted clay or other material which can withstand heavy equipment loads. The top of the composting floor system shall be sloped a minimum of two (2) percent to prevent ponding and shall drain or empty into a holding tank, sanitary sewer, permitted treatment system, or other leachate collection system.

(4) Site plan showing dimensions and details of the proposed processing, production, curing, and storage areas.

(5) Engineering drawings of the site indicating the location of roads, building, equipment, fences and gates, landscaping, utility lines, drainage facilities, and existing and final contours indicating any site grading work that will be necessary.

(6) Profile or cross section views of the site as necessary to describe the construction of access roads, drainage structures and features, existing and final grade, superstructures, processing or storage areas, and other significant features or structures.

(7) Stormwater management controls to meet State and Federal regulations and to prevent stormwater run-on from entering receiving, processing, curing, or storage areas, and to control stormwater run-off from these areas.

(8) Leachate collection and removal systems designed for incorporating the liquid back into the compost piles and/or removal and treatment.

(9) Site access and security measures to include barriers to unauthorized entry and dumping, all-weather access roads and signage.

(10) Methods for odor, noise, dust, vector, and litter control.

(11) Sufficient capacity to handle incoming waste including three (3) days storage, and storage of six (6) months production of finished compost, and methods to handle and remove unacceptable wastes delivered to the facility.

Reg.22.807 - Testing Of Run-Off And Compost

(a) NPDES Permits - The facility shall not commence construction or operation without required stormwater or discharge permits or documentation that a permit or permits is not required. Analysis results, DMR's and other stormwater or discharge records shall be retained as described in Reg.22.808.

(b) Type Y Facility Testing Requirements - Type Y facilities shall not be required to test the finished compost unless materials other than yard waste are incorporated into the compost. If other materials are found, then the facility shall be required be meet the requirements for a Type O or S permit, and compost shall be tested in accordance with Table 2 as directed by the Department.

(c) Types O & S Testing Requirements - Types O and S facilities shall develop an initial Quality Assurance/Quality Control plan to be included with the Operating Narrative outlined in Reg. 22.804. The initial plan will include, at a minimum, the parameters in Table 2. This plan will serve as an outline only and will be adjusted as described below:

(1) The Department will prescribe monitoring and sampling schedules for the first year of facility operation.

(2) From the information gained during this first year of operation, the plan will be updated to include monitoring schedules and quality assurance procedures.

(3) Compost shall be sampled and analyzed thereafter according to the approved plan.

(4) Test results will be available for inspection by the Department or be furnished to the Department upon request.

Reg.22.808- Recordkeeping And Reporting

(a) Type Y Facilities - Type Y composting facilities shall keep and retain records of operations which shall be available for inspection by the Department. Records shall include at a minimum:

(1) Monitoring results of stormwater runoff and/or site discharges as required by facility NPDES permits.

(2) Permit, design drawings, operating narrative, modifications, annual reports, and Department correspondence;

(3) Facility operating records as required by Reg. 22.804(b)(1).

(4) Quantity, type and source of incoming waste on a monthly basis;

(5) Quantity, of compost sold or distributed on a monthly basis;

(6) Quantity of residue removed for disposal, and the date and location of disposal;

(7) Any testing data including sampling information, chain-of-custody, and sample results that may be taken of compost products generated at the site; and

(8) Any other records required by Regulation 22.

(b) Type O and Type S Facilities - Types O and S facilities shall keep and retain records of operations which shall be available for inspection by the Department. Records shall include at a minimum:

(1) Compost analysis results which include the name of the testing laboratory;

(2) Quantity, type and source of incoming waste;

(3) Quantity and types of recovered recyclables, as appropriate;

(4) Quantity of compost produced;

(5) Quantity of compost sold/distributed, and markets;

(6) Quantity of disposed residue, date and location of disposal;

(7) Daily temperature readings and retention times during PFRP;

(8) Leachate management records and summaries;

(9) Monitoring results of stormwater runoff and/or site discharges as required by facility NPDES permits;

(10) Application documents, permits, design drawings, operating plans, modifications, Department correspondence;

(11) Annual reports and data for compiling annual reports.

(c) Annual Reports – All composting facilities shall submit an annual report to the Department covering a reporting period from January through December, and shall be submitted to the Department by March 31 of each year covering the previous reporting period.

(1) Type Y facilities shall submit an annual report summarizing the results of Reg.22.808(a) since the previous report;

(2) Type O and Type S facilities shall submit an annual report summarizing the results of Reg.22.808(b) above since the previous report.

Reg.22.809- Compost Utilization

(a) Labeling Requirements Compost produced from Type S and Type O facilities that is offered for sale or distribution must contain a label indicating recommended safe use and application rates, and

restrictions, if any, on use of the product. If compost is offered for bulk sale or distribution, signs or printed literature must be available with this information.

(b) Conformance with Standards - Utilization of compost produced from Type S facilities is governed by the parameters outlines in Table 2. Compost parameter limits have been selected to protect public health and safety and to protect the environment. Any material not meeting the parameter limits in Table 2 may be used only as authorized by the Department or it must be disposed.

(c) Exceptions - Persons wishing to apply material exceeding parameter limits in Table 2 must show that site-specific soil conditions will allow application without endangering the public or the environment and application site permitting may be required.

Reg.22.810- Closure And Financial Assurance

(a) Closure Notification - Composting facilities shall notify the Department in writing 60 days prior to the proposed termination date of the facility. Within 30 days of ceasing operations, all residuals, waste, etc. shall be removed from the site and disposed.

(b) Closure Plan Submittals - Composting facilities shall prepare and submit a closure plan containing a schedule and description of the steps necessary to close the facility. Included in the plan shall be a detailed estimate of the cost required for a third party to perform the closure activities. The plan shall also include the following provisions:

(1) An updated plan shall be submitted periodically as required by the Department;

(2) The Department shall be notified in writing 60 days prior to the proposed termination date of the facility;

(3) Within 10 days of ceasing operations, all residuals, waste, etc. shall be removed from the site and disposed. The facility will then arrange for a final cleaning of any containers, equipment, machines, floors, and facility surfaces having come in contact with source-separated organic waste or solid waste. All closure activities shall be completed not later than 45 days after the termination date of the facility in item (3).

(c) Financial Assurance Requirements - Owners and operators of permitted compost facilities shall post financial assurance in accordance with the requirements of this regulation. In considering the amount of financial assurance, the Director will base the decision upon:

(1) The size of the facility and the risk of environmental contamination; and

(2) 150% of the maximum permitted amount of all solid waste and compost ever stored on site at one time can be transported and disposed of by landfilling in a permitted Class 1 landfill by a third party.

(d) Use of Financial Assurance Funds - Financial assurance funds may be used, as determined by the Director, for any reasonable purpose to remediate and mitigate any environmental, health, and safety hazards at the site should the owner or operator be unable or unwilling to fulfill the permit obligations of this Regulation.

(e) Financial Assurance Mechanisms - Owners or operators required by the Director to post financial assurance shall choose an acceptable financial assurance mechanism from those listed in Reg.22.1405 and maintain the financial assurance until site closure has been conducted in accordance with the approved closure plan required under this section.

Table 2 Compost Quality Verification

PARAMETER	UNIT	LIMIT	TEST METHOD
Soluble salts – electrical conductivity	mmhos/cm		NCR Publication 221, Method 14; or EPA 9050A.
Pathogens	PFRP	N/A	EPA, 40 CFR ' 503 Appendix B(B)(1).
Fecal coliform	MPN/g	1000	Standard Methods 9221 E. or 9222 D.
Salmonella	MPN/4g	3 or less	Standard Methods 9260 D.
pH	s.u.	5.5-8.5	NCR Publication 221, Method 14; or EPA 9045.
Arsenic	mg/kg	41	AOAC 975.03b(b) and EPA dry wt. 6010A or 7061A; or EPA 3050 and 6010A or 7061A.
Cadmium	mg/kg	39	AOAC 975.03B(b) and EPA dry wt. 6010A or 7130; or EPA 3050 and 6010A or 7130.
Chromium	mg/kg	1200	AOAC 975.03B(b) and EPA dry wt. 6010A or 7190; or EPA 3050 and 6010A or 7190.
Copper	mg/kg dry wt.	1500	AOAC 975.03B(b) and EPA 6010A or 7210; or EPA 3050 and 6010A or 7210.
Lead	mg/kg dry wt.	300	AOAC 975.03B(b) and EPA 6010A or 7420 or 7421; or EPA 3050 and 6010A or 7420 or 7421.
Mercury	mg/kg dry wt.	17	AOAC 971.21; or EPA 7471A.
Molybdenum	mg/kg dry wt.	54	AOAC 975.03B(b) and EPA 6010A or 7480 or 7481; or AOAC 985.01 and EPA 6010A or 7480 or 7481; or EPA 3050 and 6010A or 7480 or 7481.
Nickel	mg/kg dry wt.	420	AOAC 975.03(b) and EPA 6010A or 7520; or EPA 3050 and 6010A or 7520.
Selenium	mg/kg dry wt.	36	AOAC 975.03B(b) and EPA 7740 or 7741A; or EPA 3050 and 7740 or 7741A.
Zinc	mg/kg dry wt.	2800	AOAC 975.03B(b) and EPA 6010A or 7950; or EPA 3050 and EPA 6010A or 7950.

California Integrated Waste Management Board

Chapter 3.1. Compostable Materials Handling Operations and Facilities Regulatory Requirements

Article 1. General

Section 17850. Authority and Scope.
(a) This Chapter is adopted pursuant to and for the purpose of implementing the California Integrated Waste Management Act of 1989 (Act) commencing with section 40000 of the Public Resources Code, as amended. These regulations should be read together with the Act.

(b) This Chapter implements those provisions of the Act relating to composting. Nothing in this Chapter is intended to limit the power of any federal, state, or local agency to enforce any provision of law that it is authorized or required to enforce or administer.

(c) Biological decomposition of organic material can be both a naturally occurring or artificially controlled process. This Chapter establishes standards and regulatory requirements for intentional and inadvertent composting resulting from the handling of compostable materials, including but not limited to feedstock, compost, or chipped and ground materials as defined in section 17852.

(d) Nothing in these standards shall be construed as relieving any owner, operator, or designee from the obligation of obtaining all required permits, licenses, or other clearances and complying with all orders, laws, regulations, or reports, or other requirements of other regulatory or EA, including but not limited to, local health entities, regional water quality control boards, air quality management districts or air pollution control districts, local land use authorities, and fire authorities.

(e) Nothing in these standards precludes the EA or the board from inspecting an activity, operation or facility to determine if it is subject to these standards.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17852. Definitions.
(a) For the purposes of this Chapter:

(1) "Active Compost" means compost feedstock that is in the process of being rapidly decomposed and is unstable. Active compost is generating temperatures of at least 50 degrees Celsius (122 degrees Fahrenheit) during decomposition; or is releasing carbon dioxide at a rate of at least 15 milligrams per gram of compost per day, or the equivalent of oxygen uptake.

(2) "Additives" means material mixed with feedstock or active compost in order to adjust the moisture level, carbon to nitrogen ratio, or porosity to create a favorable condition. Additives include, but are not limited to, fertilizers and urea. Additives do not include septage, biosolids, or compost feedstock.

(3) "Aerated Static Pile" means a composting process that uses an air distribution system to either blow or draw air through the pile. Little or no pile agitation or turning is performed.

(4) "Aerobic Decomposition" means the biological decomposition of organic substances in the presence of oxygen.

(5) "Agricultural Material" means material of plant or animal origin, which result from the

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production and processing of farm, ranch, agricultural, horticultural, aquacultural, silvicultural, floricultural, vermicultural, or viticultural products, including manures, orchard and vineyard prunings, and crop residues.

(6) "Agricultural Material Composting Operation" means an operation that produces compost from green or agricultural additives, and/or amendments.

(7) "Amendments" means materials added to stabilized or cured compost to provide attributes for certain compost products, such as product bulk, product nutrient value, product pH, and soils blend. Amendments do not include septage, biosolids, or compost feedstock.

(8) "Anaerobic Decomposition" means the biological decomposition of organic substances in the absence of oxygen.

(9) "Biosolids" means solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works. Biosolids includes, but is not limited to, treated domestic septage and scum or solids removed in primary, secondary, or advanced wastewater treatment processes. Biosolids does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during the preliminary treatment of domestic sewage in a treatment works.

(10) "Chipping and Grinding Operations and Facilities" means an operation or facility, that does not produce compost, that mechanically reduces the size or otherwise engages in the handling, of compostable material and:

(A) The site does the following:

1. The site handles only material, excluding manure, allowed at a green material composting operation or facility as set forth in section 17852(a)(22); and

2. Each load of green material is removed from the site within 48 hours of receipt. The EA may allow a site to keep green material on-site for up to 7 days if the EA determines that the additional time does not increase the potential for violations of this Chapter.

(B) If the site fails to meet the definition of green material because it exceeds the contamination limits in section 17852(a)(21), the site shall be regulated as set forth in the Transfer/Processing Regulatory requirements (commencing at section 17400).

(C) If the site fails to meet the definition of this section because the green material remains on-site for a longer period of time than allowed, then the site shall be regulated as a compostable material handling operation or facility, as set forth in this Chapter.

(11) "Compostable Material" means any organic material that when accumulated will become active compost as defined in section 17852(a)(1).

(12) "Compostable Material Handling Operation" or "Facility" means an operation or facility that processes, transfers, or stores compostable material. Handling of compostable materials results in controlled biological decomposition. Handling includes composting, screening, chipping and grinding, and storage activities related to the production of compost, compost feedstocks, and chipped and ground materials. "Compostable Materials Handling Operation or Facility" does not include activities excluded from regulation in section 17855. "Compostable Materials Handling Operation or Facility" also includes:

(A) agricultural material composting operations;

(B) green material composting operations and facilities;

(C) research composting operations; and

(D) chipping and grinding operations and facilities.

(13) "Curing" means the final stage of the composting process that occurs after compost has undergone pathogen reduction, as described in section 17868.3, and after most of the readily metabolized material has been decomposed and stabilized.

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(14) "Domestic Sewage" means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

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(15) "Disposal" means:

(A) stockpiling of compostable material onto land for a combined period of time greater than six months, or agricultural and green material for twelve months on prime agricultural land as defined in Government Code section 51201, unless the RWQCB in consultation with the EA makes a written finding that the material may remain within the operations area for a period of time greater than specified.

(B) disposal does not include the use of compostable material for alternative daily cover material at a solid waste landfill. Notwithstanding this section, use of compostable organic material as a alternative daily cover material shall still require approval for use pursuant to Title 27, California Code of Regulations, section 20680 and may require additional approvals from other governmental agencies, including, but not limited to RWQCB and Air Districts.

(C) disposal does not include land application of compostable organic material. "Land Application" means the application of compostable material, excluding food material or mixed solid waste for the following applications: to forest, agricultural, and range land at agronomic rates; in accordance with California Department of Food and Agriculture (CDFA) requirements for beneficial use as authorized by Food and Agricultural Code section 14501 et seq.; or for beneficial uses that may be otherwise exempt or excluded from regulation by CDFA.

(D) Should the EA have information that a compostable material handler is engaging in other activities that meet the definition of disposal, the burden of proof shall be on the land owner or operator to demonstrate otherwise.

(E) If the activities at a site meet the definition of disposal, the site shall be regulated as set forth in the Consolidated Regulations for Treatment, Storage, Processing or Disposal of Solid Waste (commencing at Title 27, California Code of Regulations, section 20005).

(16) "Dry Weight Basis" means weight calculated on the basis of having been dried until reaching a constant mass, that results in essentially 100 percent solids content.

(17) "Enclosed Composting Process" means a composting process where the area that is used for the processing, composting, stabilizing, and curing of organic materials, is covered on all exposed sides and rests on a stable surface with environmental controls for moisture and airborne emissions present.

(18) "EA" means enforcement agency.

(19) "Feedstock" means any compostable material used in the production of compost or chipped and ground material including, but not limited to, agricultural material, green material, food material, biosolids, and mixed solid waste. Feedstocks shall not be considered as either additives or amendments.

(20) "Food Material" means any material that was acquired for animal or human consumption, is separated from the municipal solid waste stream, and that does not meet the definition of "agricultural material." Food material may include material from food facilities as defined in Health and Safety Code section 113785, grocery stores, institutional cafeterias (such as, prisons, schools and hospitals) or residential food scrap collection.

(21) "Green Material" means any plant material that is separated at the point of generation, contains no greater than 1.0 percent of physical contaminants by weight, and meets the requirements of section 17868.5. Green material includes, but is not limited to, yard trimmings, untreated wood wastes, natural fiber products, and construction and demolition wood waste. Green material does not include food material, biosolids, mixed solid waste, material processed from commingled collection, wood containing lead-based paint or wood preservative, mixed construction or mixed demolition debris.

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(22) "Green Material Composting Operation" or "Facility" is an operation or facility that composts green material, additives, and/or amendments. A green material composting operation or facility may also handle manure and paper products. An operation or facility that handles a feedstock that is not green material, manure, or paper products, shall not be considered a green material composting operation or facility. "Green Material Composting Operation" or "Facility" does not include activities excluded from regulation in section 17855.

(23) "Handling" means the processing, transfer, and storage of compostable materials. Handling of compostable materials results in controlled biological decomposition. Handling includes composting, screening, chipping and grinding, and storage activities related to the production of compost, compost feedstocks, and chipped and ground materials.

(24) "Insulating Material" means material used for the purpose of minimizing the loss of heat from a compost pile undergoing the "Process to Further Reduce Pathogens" (PFRP), as described in section 17868.3. Insulating material includes, but is not limited to, soil and stabilized compost.

(25) "Manure" is an agricultural material and means accumulated herbivore or avian excrement. This definition shall include feces and urine, and any bedding material, spilled feed, or soil that is mixed with feces or urine.

(26) "Mixed Solid Waste" means any material that is part of the municipal solid waste stream, and is mixed with or contains non-organics, processed industrial materials, or plastics. A feedstock that is not separated or contains 1.0% or more physical contaminants by weight is mixed solid waste. Compostable material that contains mixed demolition or mixed construction debris shall be considered mixed solid waste.

(27) "Mushroom Farm" means an activity that produces mushrooms. The handling of compostable material at a mushroom farm prior to and after use as a growth medium is subject to regulation pursuant to this chapter and is not considered mushroom farming.

(28) "Operations Area" means the following areas within the boundary of a compostable material handling operation or facility:

(A) equipment cleaning, maintenance, and storage areas;

(B) feedstock, active, curing and stabilized compost processing or stockpiling areas; and

(C) process water and stormwater drainage control systems.

(29) "Operator" means the owner, or other person who through a lease, franchise agreement o r other arrangement with the owner, becomes legally responsible for the following:

(A) complying with regulatory requirements set forth in this Chapter;

(B) complying with all applicable federal, state and local requirements;

(C) the design, construction, and physical operation of the site; and

(D) site restoration.

(30) "Owner" means the person or persons who own, in whole or in part, a compostable material handling operation or facility, or the land on which these operations or facilities are located.

(31) "Pathogenic Organism" means disease-causing organisms.

(32) "Physical Contamination" or "Contaminants" means human-made inert products contained within feedstocks, including, but not limited to, glass, metal, and plastic.

(33) "Process Water" means liquid that is generated during or used in the production of compost or chipped and ground materials.

(34) "Research Composting Operation" means a composting operation, that is operated for the purpose of gathering research information on composting.

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(35) "Separated At The Point of Generation" includes material separated from the solid waste stream by the generator of that material. It may also include material from a centralized facility as long as that material was kept separate from the waste stream prior to receipt by that facility and the material was not commingled with other materials during handling.

(36) "Stabilized Compost" means any organic material that has undergone the Process to Further Reduce Pathogens (PFRP), as described in section 17868.3, and has reached a stage of reduced biological activity as indicated by reduced temperature and rate of respiration below that of active compost.

(37) "Static Pile" means a composting process that is similar to the aerated static pile except that the air source may or may not be controlled.

(38) "Vector" includes any insect or other arthropod, rodent, or other animal capable of transmitting the causative agents of human disease.

(39) "Vermicomposting" means an activity that produces worm castings through worm activity. The EA may determine whether an activity is or is not vermicomposting. The handling of compostable material prior to and after use as a growth medium is subject to regulation pursuant to this chapter and is not considered vermicomposting.

(40) "Windrow Composting Process" means the process in which compostable material is placed in elongated piles. The piles or "windrows" are aerated and/or mechanically turned on a periodic basis.

(41) "Within-vessel Composting Process" means a process in which compostable material is enclosed in a drum, silo, bin, tunnel, reactor, or other container for the purpose of producing compost, maintained under uniform conditions of temperature and moisture where air-borne emissions are controlled.

(42) "Wood Waste" means solid waste consisting of wood pieces or particles which are generated from the manufacturing or production of wood products, harvesting, processing or storage of raw wood materials, or construction and demolition activities.

(43) "Yard Trimmings" means any wastes generated from the maintenance or alteration of public, commercial or residential landscapes including, but not limited to, yard clippings, leaves, tree trimmings, prunings, brush, and weeds.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17853.0. Approval of Alternatives.
(a) Approvals, determinations and other requirements that the EA is authorized to make in this Chapter shall be provided in writing by the EA to the operator. The operator shall place a copy of these approvals, in addition to those records identified in sections 17869, in the operating record.

(b) Some of the provisions of this Chapter allow the EA to approve a reduced inspection frequency. The EA shall only approve a reduced inspection frequency if the EA finds that it is as protective of the public health and safety and the environment as the standard inspection frequency.

(c) Some of the standards contained in this Chapter allow the EA to approve an alternative method of compliance with the standard. These provisions are not intended to allow the EA to change the particular standard, but are intended to allow the EA flexibility to approve, in advance, an alternative method of meeting the existing standard. For facilities that require a full solid waste facilities permit, the EA may choose to include the approved method as a term and condition of the solid waste facilities permit, rather than in the manner authorized by subdivision (a) of this section. If the method is included in the Compostable Materials Handling Facility Permit, a change to the method may require a revision to the solid waste facilities permit in accordance with the procedures set forth in Title 27, Division 2, Subdivision 1, Chapter 4, Subchapter 3, Articles 2, 3, and 3.1 (commencing with section 21570).

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Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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Article 2. Regulatory Tiers for Composting Operations and Facilities

Section 17854. Compostable Materials Handling Facility Permit Requirements.
Except as specified in this Article, all compostable materials handling activities shall obtain a Compostable Materials Handling Facility Permit pursuant to the requirements of Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3 and 3.1 (commencing with section 21450) prior to commencing operations.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17855. Excluded Activities.
(a) The activities listed in this section do not constitute compostable material handling operations or facilities for the purposes of this Chapter and are not required to meet the requirements set forth herein. Nothing in this section precludes the EA or the board from inspecting an excluded activity to verify that the activity is being conducted in a manner that qualifies as an excluded activity or from taking any appropriate enforcement action.

(1) An activity is excluded if it handles agricultural material derived from an agricultural site, and returns a similar amount of the material produced to that same agricultural site, or an agricultural site owned or leased by the owner, parent, or subsidiary of the composting activity. No more than an incidental amount of up to 1,000 cubic yards of compost product may be given away or sold annually.

(2) Vermicomposting is an excluded activity. The handling of compostable material prior to and after use as a growth medium is not an excluded activity and is subject to the requirements of this chapter. Handling of agricultural material on the site of a vermicomposting activity, for use as a growth medium on that same site, is an excluded activity if it complies with section 17855(a)(1).

(3) Mushroom farming is an excluded activity. The handling of compostable material prior to and after use as a growth medium is not an excluded activity and is subject to the requirements of this chapter. Handling of agricultural material on the site of a mushroom farm, for use as mushroom bedding on that same site, is an excluded activity if it complies with section 17855(a)(1).

(4) Handling of green material, feedstock, additives, amendments, compost, or chipped and ground material is an excluded activity if 500 cubic yards or less is on-site at any one time, the compostable materials are generated on-site and if no more than 1,000 cubic yards of materials are either sold or given away annually. The compostable material may also include up to 10% food material by volume.

(5) The handling of compostable materials is an excluded activity if:

(A) the activity is located at a facility (i.e., landfill or transfer/processing facility) that has a tiered or full permit as defined in section 18101,

1. has a Report of Facility Information which is completed and submitted to the EA that identifies and describes the activity and meets the requirements of Titles 14 or 27; and,

2. will only use the material on the facility site, or

(B) the activity is solely for the temporary storage of biosolids sludge at a Publicly Operated Treatment Works (POTW), or

(C) the activity is located at the site of biomass conversion and is for use in biomass conversion as defined in Public Resources Code section 40106; or

(D) the activity is part of a silvicultural operation or a wood, paper, or wood product manufacturing operation; or

(E) the activity is part of an agricultural operation and is used to temporarily store or process agricultural material not used in the production of compost or mulch; or

(F) the activity is part of an operation used to chip and grind materials derived from and applied to lands owned or leased by the owner, parent, or subsidiary of the operation; or

(G) the activity is part of an agricultural operation used to chip and grind agricultural material produced on lands owned or leased by the owner, parent, or subsidiary of the agricultural operation, for use in biomass conversion; or

(H) the activity is part of an animal food manufacturing or rendering operation.

(I) the activity is the storage of yard trimmings at a publicly designated site for the collection of lot clearing necessary for fire protection provided that the public agency designating the site has notified the fire protection agency; or

(J) the materials are handled in such a way to preclude their reaching temperatures at or above 122 degrees Fahrenheit as determined by the EA.

(6) Non-commercial composting with less than one cubic yard of food material is excluded provided that all compostable material is generated and used on-site.

(7) Storage of bagged products from compostable material is an excluded activity provided that such bags are no greater than 5 cubic yards.

(8) Within-vessel composting process activities with less than 50 cubic yard capacity are excluded.

(9) Beneficial use of compostable materials is an excluded activity. Beneficial use includes, but is not limited to slope stabilization, weed suppression, alternative daily cover, and similar uses, as determined by the EA; land application in accordance with California Department of Food and Agriculture requirements for a beneficial use as authorized by Food and Agricultural Code section 14501 et seq.; and reclamation projects in accordance with the requirements of the Office of Mine Reclamation of the Department of Conservation as authorized by Public Resources Code section 2770 et seq.

Section 17855.2. Prohibitions.
(a) The composting of unprocessed mammalian tissue, including but not limited to, flesh, organs, hide, blood, bone and morrow is prohibited, except when from the food service industry, grocery stores, or residential food scrap collection, or as part of a research composting operation for the purpose of obtaining data on pathogen reduction or other public health, animal health, safety, or environmental concern, in accordance with section 17862.

(b) The composting of medical waste is prohibited.

(c) The composting of hazardous waste is prohibited.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17855.3. Permit Name.
Any permit issued pursuant to this Article, except for one issued pursuant to section 17862.1(b),

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shall be entitled: "Compostable Materials Handling Facility Permit."

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17855.4. Pre-existing Permits and Notifications.

(a) If a facility had previously obtained a Registration or Standardized Permit in accordance with the regulations in effect prior to April 4, 2003, that facility may continue to operate in accordance with its permit, until the EA conducts a permit review pursuant to Title 14, California Code of Regulations, section 18104.7 and 18105.9 and determines that a Compostable Materials Handling Facility Permit is required. If the EA makes such a determination, the operator shall comply with the Compostable Materials Handling Facility Permit requirements set forth in Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) within two years of that determination.

(b) If an operation had previously been operating pursuant to an EA Notification in accordance with the regulations in effect prior to April 4, 2003, that operation may continue to operate in accordance with its EA Notification or regulatory authorization until the EA determines that a Compostable Materials Handling Facility Permit is required. The EA shall make this determination no sooner than 120 days and no later than two years from April 4, 2003. If the EA determines that a Compostable Materials Handling Facility Permit is required, the operator shall comply with the Compostable Materials Handling Facility Permit requirements set forth in Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) within two years of that determination.

(c) If an activity has previously been excluded form the regulations in effect prior to April 4, 2003, that activity may continue to operate in accordance with its regulatory exclusion until the EA determines that a Compostable Materials Handling Facility Permit is required. The EA shall make this determination no sooner than 120 days and no later than two years from April 4, 2003. If the EA determines that a Compostable Materials Handling Facility Permit is required, the operator shall comply with the Compostable Material Handling Facility Permit requirements set forth in Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) within two years of that determination.

(d) Notwithstanding other provisions of this section, a Chipping and Grinding activity that is currently operating in accordance with the regulations in effect prior to April 4, 2003, may continue to operate in accordance with its regulatory authorization until the EA determines that a different authorization is required. The EA shall make this determination within 120 days from April 4, 2003.

(1) If the EA determines that the activity is required to comply with the EA Notification requirements, the operator shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100), within 120 days from that determination.

(2) If the EA determines that the activity is required to comply with the Registration requirements, the operator shall comply with the Registration requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0. Article 3.0 (commencing with section 18100) within 120 days from that determination.

(3) If the EA determines that the activity is required to comply with the Compostable Materials Handling Facility Permit requirements, the operator shall comply with the Compostable Material Handling Facility Permit requirements set forth in Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) within two years from that determination.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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Section 17856. Agricultural Material Composting Operations.
(a) All agricultural material composting operations and chipping and grinding operations shall comply with the Enforcement Agency Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100), except as otherwise provided by this Chapter. Agricultural Compostable Materials Handling Operations shall only be subject to the requirements of section 17863.4 if the EA makes a written determination that the operation has violated the requirements for odor impacts of section 17867.

(b) Compost produced by an agricultural material composting operation or chipping and grinding operation which uses only agricultural material may be sold or given away in unrestricted quantities. These operations shall be inspected by the EA at least once annually.

(c) Compost produced by an agricultural material composting operation which uses agricultural material and/or green material, as specified in section 17852 (a)(21), may be sold or given-away in accordance with the following restrictions.

(1) Those sites that do not sell or give-away more than 1,000 cubic yards of material per year shall be inspected by the EA at least once annually when actively composting. If more that 12,500 cubic yards of green material, including feedstock, compost, or chipped and ground material, is to be handled on-site of productive farmland as defined in Government Code section 51201, the operator shall give advance notice to the EA. The EA shall only prohibit the on-site storage of additional materials, or impose a greater inspection frequency, if the EA makes a written finding that it will pose an additional risk to public health and safety and the environment. The EA shall forward a copy of the request and approval to the Board.

(2) Those operations that sell or give-away more than 1,000 cubic yards of material per year, shall have not more than 12,500 cubic yards of green material, including feedstock, compost, or chipped and ground material, on-site at any one time and shall be inspected by the EA once every three (3) months.

(3) These sites shall record the quantity received of green material.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17857.1. Green Material Composting Operations and Facilities.
(a) A green material composting operation that has up to 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100).

(b) A green material composting operation that has up to 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time shall be inspected by the EA at least once every three (3) months, unless an operator request for a reduced inspection frequency of no less than annually is approved by the EA. The EA shall only approve a lesser inspection frequency, if the EA finds that it will not pose an additional risk to public health and safety and the environment. The EA shall forward a copy of the request and approval to the Board.

(c) A green material composting facility that has more than 12,500 cubic yards of feedstock, compost, or chipped and ground material on-site at any one time shall obtain a Compostable Materials Handling Facility Permit pursuant to the requirements of Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) prior to commencing operations.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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Section 17859.1. Biosolids Composting at POTWs.
(a) Except as provided in section 17855(a)(5)(B), the composting of biosolids on-site at a Publicly Operated Treatment Works (POTW) shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100).

(b) All other composting of biosolids shall comply with section 17854.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.
Title 40, Chapter I, Subchapter O, Part 503, of the Code of Federal Regulations.

17862. Research Composting Operations.
(a) An operator conducting research composting operations shall not have more than 5,000 cubic-yards of feedstock, additives, amendments, chipped and ground material, and compost on-site at any one time, and shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100), except as otherwise provided by this Chapter.

(b) An operator conducting research composting operations utilizing within-vessel processing, may exceed 5,000 cubic-yards of feedstock, additives, amendments, chipped and ground material and compost, if the EA determines that such increased volume will not pose additional risk to the public health, safety and the environment.

(c) In addition to the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0, section 18103.1 (a)(3), the operator shall provide a description of the research to be performed, research objectives, methodology/protocol to be employed, data to be gathered, analysis to be performed, how the requirements of this subchapter will be met, and the projected timeframe for completion of the research operation.

(d) The EA Notification for a research composting operation shall be reviewed after each two-year period of operation. Review criteria shall include the results and conclusions drawn from the research.

(e) Research composting operations that will be using unprocessed mammalian tissue as a feedstock for the purpose of obtaining data on pathogen reduction or other public health, animal health, safety, or environmental protection concern, shall satisfy the following additional requirements:

(1) Unprocessed mammalian tissue used as feedstock shall be generated from on-site agricultural operations, and all products derived from unprocessed mammalian tissue shall be beneficially used on-site.

(2) The operator shall prepare, implement and maintain a site-specific, research composting operation site security plan. The research composting site security plan shall include a description of the methods and facilities to be employed for the purpose of limiting site access and preventing the movement of unauthorized material on to or off of the site.

(3) The EA Notification for the research composting operation using unprocessed mammalian tissue as feedstock and documentation of additional requirements of this section shall be reviewed after each six month period of operation.

(f) The operator shall submit all additional documentation required by subsections (c) and (e)(2) to the EA with the EA Notification and prior to the composting of any feedstock. The EA shall determine that the EA Notification for research composting operations is complete and correct only if the additional documentation requirements of this section have been met.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

California

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17862.1. Chipping and Grinding Operations and Facilities.
(a) A chipping and grinding operation that receives up to 200 tons per day of material that may be handled by a green material composting operation shall comply with the EA Notification requirements set forth in Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0 (commencing with section 18100), except as otherwise provided by this Chapter.

(b) A chipping and grinding facility that receives more than 200 tons per day, and up to 500 tons per day of material that may be handled by a green material composting operation shall obtain a Registration Permit pursuant to the requirements of Title 14, California Code of Regulations, Division 7, Chapter 5.0, Article 3.0, prior to commencing operations.

(c) A chipping and grinding facility that receives more than 500 tons per day of material that may be handled by a green material composting operation shall obtain a Compostable Materials Handling Facility Permit pursuant to the requirements of Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 4, Subchapter 1 and Subchapter 3, Articles 1, 2, 3, and 3.1 (commencing with section 21450) prior to commencing operations.

(d) A chipping and grinding operation of facility shall not be subject to the provisions of sections 17868.1 through 17868.3 of this Chapter.

(e) If a chipping and grinding operation or facility exceeds the contamination limits in section 17852(a)(21), it shall be regulated as set forth in the Transfer/Processing Regulatory requirements (commencing at section 17400).

(f) If a chipping and grinding operation or facility stores material for a longer period of time than is allowed by section 17852(a)(10)(A)(2), then the site shall be regulated as a green material handling operation or facility, as set forth in this Chapter.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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Article 3. Report of Facility Information

17863. Report of Composting Site Information.
Each operator of a compostable material handling facility that is required to obtain a Compostable Materials Handling Facility Permit, as specified in Article 2 of this Chapter, shall, at the time of application, file a Report of Composting Site Information with the EA. If the operator intends to alter the permitted feedstock, these changes must be reported to the EA for maintenance of permit status. Such changes may become the basis for revisions to the permit or for revocation of the permit.

Note:

Authority cited:
Sections 40502, 43020 and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

17863.4. Odor Impact Minimization Plan.
(a) All compostable material handling operations and facilities shall prepare, implement and maintain a site-specific odor impact minimization plan. A complete plan shall be submitted to the EA with the EA Notification or permit application.

(b) Odor impact minimization plans shall provide guidance to on-site operation personnel by describing, at a minimum, the following items. If the operator will not be implementing any of these procedures, the plan shall explain why it is not necessary.

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(1) an odor monitoring protocol which describes the proximity of possible odor receptors and a method for assessing odor impacts at the locations of the possible odor receptors; and,

(2) a description of meteorological conditions effecting migration of odors and/or transport of odor-causing material off-site. Seasonal variations that effect wind velocity and direction shall also be described; and,

(3) a complaint response protocol; and,

(4) a description of design considerations and/or projected ranges of optimal operation to be employed in minimizing odor, including method and degree of aeration, moisture content of materials, feedstock characteristics, airborne emission production, process water distribution, pad and site drainage and permeability, equipment reliability, personnel training, weather event impacts, utility service interruptions, and site specific concerns; and,

(5) a description of operating procedures for minimizing odor, including aeration, moisture management, feedstock quality, drainage controls, pad maintenance, wastewater pond controls, storage practices (e.g., storage time and pile geometry), contingency plans (i.e., equipment, water, power, and personnel), biofiltration, and tarping.

(c) The odor impact minimization plan shall be revised to reflect any changes, and a copy shall be provided to the EA, within 30 days of those changes.

(d) The odor impact minimization plans shall be reviewed annually by the operator to determine if any revisions are necessary.

(e) The odor impact minimization plan shall be used by the EA to determine whether or not the operation or facility is following the procedures established by the operator. If the EA determines that the odor impact minimization plan is not being followed, the EA may issue a Notice and Order (pursuant to section 18304) to require the operator to either comply with the odor impact minimization plan or to revise it.

(f) If the odor impact minimization plan is being followed, but the odor impacts are still occurring, the EA may issue a Notice and Order (pursuant to section 18304) requiring the operator to take additional reasonable and feasible measures to minimize odors.

Note:

Authority cited:
Sections 40502, 43020, 43021 and 43209.1 of the Public Resources Code.

Reference:
Sections 43020, 43201 and 43209.1 of the Public Resources Code.

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California Integrated Waste Management Board

Chapter 3.1. Composting Operations Regulatory Requirements

Article 5. Composting Operation and Facility Siting and Design Standards

Section 17865. Siting On Landfills.

(a) Compostable materials handling operations and facilities located atop closed solid waste landfills shall meet postclosure land use requirements pursuant to Title 27, California Code of Regulations, Division 2, Subdivision 1, Chapter 3, Subchapter 5, Article 2, section 21190.

(b) Compostable materials handling operations and facilities sited on intermediate cover on a solid waste landfill shall locate operations areas on foundation substrate that is stabilized, either by natural or mechanical compaction, to minimize differential settlement, ponding, soil liquefaction, or failure of pads or structural foundations.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17866. General Design Requirements.

(a) Compostable materials handling operations and facilities shall be designed and constructed in such a manner as to enable the operations and facilities to comply with the operational requirements set forth in Article 6 of this Chapter.

(b) The design of a compostable materials handling facility shall utilize advice, as appropriate, from persons competent in engineering architecture, landscape design, traffic engineering, air quality control, and design of structures.

(1) The engineering design of a compostable materials handling facility shall be in accordance with the principles and disciplines in the State of California generally accepted for design of this type of facility. The design of a composting facility requiring a Compostable Materials Handling Facility Permit shall accompany the Report of Composting Site Information, pursuant to section 17863 of this Chapter.

(2) The engineering design shall be based on appropriate data regarding the service area, anticipated nature and quantity of material to be received, climatological factors, physical settings, adjacent land use (existing and planned), types and numbers of vehicles anticipated to enter the station, drainage control, the hours of operation and other pertinent information. If the station is to be used by the general public, the design of the facility shall take account of features that may be needed to accommodate such public use.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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Article 6. Composting Operating Standards

Section 17867. General Operating Standards.

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(a) All compostable materials handling operations and facilities shall meet the following requirements:

(1) All handling activities are prohibited from composting any material specified in section 17855.2 of this Chapter.

(2) All handling activities shall be conducted in a manner that minimizes vectors, odor impacts, litter, hazards, nuisances, and noise impacts; and minimizes human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms.

(3) Random load checks of feedstocks, additives, and amendments for contaminants shall be conducted.

(4) Contamination of compostable materials that has undergone pathogen reduction, pursuant to section 17868.3 of this Chapter, with feedstocks, compost, or wastes that have not undergone pathogen reduction, pursuant to section 17868.3 of this Chapter, or additives shall be prevented.

(5) Unauthorized human or animal access to the facility shall be prevented.

(6) Traffic flow into, on, and out of the composting operation or facility shall be controlled in a safe manner.

(7) All compostable materials handling operations and facilities, that are open for public business, shall post legible signs at all public entrances. These signs shall include the following information:

(A) name of the operation or facility,

(B) name of the operator,

(C) facility hours of operation,

(D) materials that will and will not be accepted, if applicable,

(E) schedule of charges, if applicable, and

(F) phone number where operator or designee can be reached in case of an emergency.

(8) The operator shall provide fire prevention, protection and control measures, including, but not limited to, temperature monitoring of windrows and piles, adequate water supply for fire suppression, and the isolation of potential ignition sources from combustible materials. Firelanes shall be provided to allow fire control equipment access to all operation areas.

(9) The operator shall provide telephone or radio communication capability for emergency purposes.

(10) Physical Contaminants and refuse removed from feedstock, compost, or chipped and ground material shall be removed from the site within 7 days and transported to an appropriate facility.

(11) Enclosed operations and facilities shall provide ventilation to prevent adverse public health effects from decomposition gases.

(12) The operator shall ensure that leachate is controlled to prevent contact with the public.

(13) The operator shall prevent or remove physical contaminants in compost and chipped and ground materials that may cause injury to humans.

(14) An attendant shall be on duty during business hours if the operation or facility is open to the public.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17867.5. Training.
(a) Compostable materials handling operations and facilities shall meet the following requirements:

(1) Operators shall ensure that all personnel assigned to the operation shall be trained in subjects pertinent to operations and maintenance, including the requirements of this article, physical contaminants and hazardous materials recognition and screening, with emphasis on odor impact management and emergency procedures. A record of such training shall be maintained on the site.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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Article 7. Environmental Health Standards

Section 17868.1. Sampling Requirements.
All composting operations that sell or give away greater than 1,000 cubic yards of compost annually, and all facilities shall meet the following requirements:

(a) Operators shall verify that compost meets the maximum acceptable metal concentration limits specified in section 17868.2, and pathogen reduction requirements specified in section 17868.3. Verification of pathogen reduction requirements shall occur at the point where compost is sold and removed from the site, bagged for sale, given away for beneficial use and removed from the site or otherwise beneficially used. This verification shall be performed by taking and analyzing at least one composite sample of compost, following the requirements of this section as follows:

(1) An operator who composts green material, food material, or mixed solid waste shall take and analyze one composite sample for every 5,000 cubic-yards of compost produced.

(2) An operator who composts biosolids shall meet the sampling schedule described in Table 1 below.

Table 1
Frequencies of Compost Sampling for Biosolids Composting Facilities

Amount of Biosolids Compost Feedstock (metric tons per 365 day period)	Frequency
Greater than zero but annually fewer than 290	annually
Equal to or greater than 290 but fewer than 1,500	quarterly
Equal to or greater than 1,500 but fewer than 15,000	bimonthly
Equal to or greater than 15,000	monthly

(A) The amount of biosolids compost feedstock shall be calculated in dry weight metric tons.

(3) Composite sample analysis for maximum acceptable metal concentrations, specified in section 17868.2, shall be conducted at a laboratory certified by the California Department of Health Services, pursuant to the Health and Safety Code.

(b) A composite sample shall be representative and random, and may be obtained by taking twelve

(12) mixed samples as described below.

(1) The twelve samples shall be of equal volume.

(2) The twelve samples shall be extracted from within the compost pile as follows:

(A) Four samples from one-half the width of the pile, each at a different cross-section;

(B) Four samples from one-fourth the width of the pile, each at a different cross-section; and,

(C) Four samples from one-eighth the width of the pile, each at a different cross-section.

(c) The EA may approve alternative methods of sampling for a green material composting operation or facility that ensures the maximum metal concentration requirements of section 17868.2 and the pathogen reduction requirements of section 17868.3 are met.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17868.2. Maximum Metal Concentrations.
(a) Compost products derived from compostable materials that contains any metal in amounts that exceed the maximum acceptable metal concentrations shown in Table 2 shall be designated for disposal, additional processing, or other use as approved by state or federal agencies having appropriate jurisdiction.

Table 2
Maximum Acceptable Metal Concentrations

Constituent	Concentration (mg/kg) on dry weight basis
Arsenic (As)	41
Cadmium (Cd)	39
Chromium (Cr)	1200
Copper (Cu)	1500
Lead (Pb)	300
Mercury (Hg)	17
Nickel (Ni)	420
Selenium (Se)	36
Zinc (Zn)	2800

(b) Alternative methods of compliance to meet the requirements of Subdivision (a) of this section, including but not limited to sampling frequencies, may be approved by the EA for green and food materials composting operations and facilities if the EA determines that the alternative method will ensure that the maximum acceptable metal concentrations shown in Table 2 are not exceeded.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17868.3. Pathogen Reduction.
(a) Compost products derived from compostable materials, that contains pathogens in amounts that exceed the maximum acceptable pathogen concentrations described in Subdivision (b) of this section shall be designated for disposal, additional processing, or other use as approved by state or federal agencies having appropriate jurisdiction.

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(b) Operators that produce compost shall ensure that:

(1) The density of fecal coliform in compost, that is or has at one time been active compost, shall be less than 1,000 Most Probable Number per gram of total solids (dry weight basis), and the density of Salmonella sp. bacteria in compost shall be less than three (3) Most Probable Number per four (4) grams of total solids (dry weight basis).

(2) At enclosed or within-vessel composting process operations and facilities, active compost shall be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of 3 days.

(A) Due to variations among enclosed and within-vessel composting system designs, including tunnels, the operator shall submit a system-specific temperature monitoring plan with the permit application to meet the requirements of Subdivision (b)(2) of this section.

(3) If the operation or facility uses a windrow composting process, active compost shall be maintained under aerobic conditions at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of 15 days or longer. During the period when the compost is maintained at 55 degrees Celsius or higher, there shall be a minimum of five (5) turnings of the windrow.

(4) If the operation or facility uses an aerated static pile composting process, all active compost shall be covered with 6 to 12 inches of insulating material, and the active compost shall be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of 3 days.

(c) Alternative methods of compliance to meet the requirements of Subdivision (b) of this section may be approved by the EA if the EA determines that the alternative method will provide equivalent pathogen reduction.

(d) Compost operations and facilities shall be monitored as follows to ensure that the standards in Subdivision (b) of this section are met:

(1) Each day during the pathogen reduction period, at least one temperature reading shall be taken per every 150 feet of windrow, or fraction thereof, or for every 200 cubic-yards of active compost, or fraction thereof.

(2) Temperature measurements for pathogen reduction shall be measured as follows:

(A) Windrow composting processes and agitated bays shall be monitored twelve (12) to twenty-four (24) inches below the pile surface;

(B) Aerated static pile composting processes shall be monitored twelve (12) to eighteen (18) inches from the point where the insulation cover meets the active compost.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Section 17868.5. Green Material Processing Requirements.
In order for a feedstock to be considered green material, as defined in section 17852(a)(21), the following requirements shall be met:

(a) The feedstock shall undergo load checking to ensure that physical contaminants are no greater than 1.0 percent of total weight. Load checking shall include both visual observation of incoming waste loads and load sorting to quantify percentage of contaminating materials.

(1) A minimum of one percent of daily incoming feedstock volume or at least one truck per day, whichever is greater, shall be inspected visually. If a visual load check indicates a contamination level greater than 1.0 percent, a representative sample shall be taken, physical

contaminants shall be collected and weighed, and the percentage of physical contaminants determined. The load shall be rejected if physical contaminants are greater than 1.0 percent of total weight.

(b) Upon request of the EA, the operator shall take a representative sample of feedstock, physical contaminants shall be collected and weighed, and the percentage of physical contaminants determined.

(c) Any agricultural material handling operation using this material shall ensure the feedstock meets the metal concentration limits specified in Table 2 of section 17868.2.

(d) Facility personnel shall be adequately trained to perform the activities specified in this section.

(e) Any operation or facility using this feedstock shall maintain records demonstrating compliance with this section.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

Article 8. Composting Operation and Facility Records

Section 17869. General Record Keeping Requirements.
Except as provided in subsection (d), all compostable materials handling operations and facilities shall meet the following requirements:

(a) All records required by this Chapter shall be kept in one location and accessible for five (5) years and shall be available for inspection by authorized representatives of the board, EA, local health entity, and other duly authorized regulatory and EAs during normal working hours.

(b) The operator shall record any special occurrences encountered during operation and methods used to resolve problems arising from these events, including details of all incidents that required implementing emergency procedures.

(c) The operator shall record any public complaints received by the operator, including:

(1) the nature of the complaint,

(2) the date the complaint was received,

(3) if available, the name, address, and telephone number of the person or persons making the complaint, and

(4) any actions taken to respond to the complaint.

(d) The operator shall record the quantity and type of feedstock received and quantity of compost and chipped and ground material produced. Agricultural compostable materials handling operations shall maintain records only for compostable material accepted from off-site.

(e) The operator shall record the number of load checks performed and loads rejected.

(f) The operator shall record all test results generated by compliance with Article 7 of this Chapter, including but not limited to, metal concentrations, fecal coliform and Salmonella sp. densities, temperature measurements, and dates of windrow turnings.

(1) The operator shall retain records detailing pathogen reduction methods.

(g) The operator shall record and retain records of any serious injury to the public occurring on-site and any complaint of adverse health effects to the public attributed to operations. Serious injury means any injury that requires inpatient hospitalization for a period in excess of 24 hours or in which a member of the public suffers a loss of any member of the body or suffers any degree of permanent disfigurement.

(h) The operator shall retain a record of training and instruction completed in accordance with

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section 17867.5.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Public Resources Code.

Article 9. Composting Facility Site Restoration

17870. Site Restoration.
All compostable materials handling operations and facilities shall meet the following requirements:

(a) The operator shall provide the EA written notice of intent to perform site restoration, at least 30 days prior to beginning site restoration.

(b) The operator(s) and owner(s) shall provide site restoration necessary to protect public health, safety, and the environment.

(c) The operator shall ensure that the following site restoration procedures are performed upon completion of operations and termination of service:

(1) The operation and facility grounds, ponds, and drainage areas shall be cleaned of all residues including, but not limited to, compost materials, construction scraps, and other materials related to the operations, and these residues legally recycled, reused, or disposed of.

(2) All machinery shall be cleaned and removed or stored securely.

(3) All remaining structures shall be cleaned of compost materials, dust, particulates, or other residues related to the composting and site restoration operations.

Note:

Authority cited:
Sections 40502, 43020, and 43021 of the Public Resources Code.

Reference:
Sections 43020 and 43021 of the Public Resources Code.

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DEPARTMENT OF PUBLIC HEALTH AND ENVIRONMENT

Solid and Hazardous Waste Commission/Hazardous Materials and Waste Management Division

6 CCR 1007-2

PART 1 - REGULATIONS PERTAINING TO SOLID WASTE SITES AND FACILITIES

(Adopted by the Solid and Hazardous Waste Commission on November 18, 2008)

Repeal and replace Section 14 in its entirety to read as follows:

SECTION 14

COMPOSTING

14.1 GENERAL PROVISIONS

14.1.1 Scope and Applicability

(A) This Section 14 applies to all owners or operators that compost solid waste. Composting operations exempt from these Section 14 requirements are specified in Section 14.1.2.

(B) Compliance with this Section 14 shall not relieve any facility owner or operator from his/her obligation to comply with any other applicable federal, state or local statutes, regulations, requirements or ordinances.

14.1.2 Exemptions

This Section 14 does not apply to the following composting operations, unless the Department determines that the composting operation described below and otherwise exempt may adversely affect human health and the environment:

(A) Backyard composting: Type 1 feedstocks and foodwaste only, operations up to 100 cubic yards qualify as Backyard composting;

(B) A business that processes yard or landscaping waste, generated through routine operations, into mulch for product distribution (the owner or operator must register as a recycler under Section 8 of these Solid Waste Regulations);

(C) A business that accepts finished compost for bagging or handling;

(D) Agricultural composting operations where either:

(1) Compost materials include only agricultural waste generated on-site, subject to the following conditions:

(a) The compost is produced at a manufacturing facility registered by the Colorado Department of Agriculture (CDA), pursuant to § 35-12-101 et seq., C.R.S.; and

(b) Finished compost distributed off-site shall meet the specifications for compost established by the CDA; or

(2) Compost materials include only agricultural waste generated on-site, and imported wood chips and tree branches, subject to the following conditions:

(a) Importation of wood chips and tree branches only in quantities necessary for effective composting of the agricultural waste generated on-site;

(b) Storage of imported wood chips and tree branches is limited to nine (9) months;

(c) The facility keeps records to support adherence to this time limit;

(d) The compost is produced at a manufacturing facility registered by the CDA, pursuant to § 35-12-101et seq., C.R.S.;

(e) Finished compost is subject to the specifications for compost established by the CDA; and

(f) The finished compost is only used on agricultural zoned property, as defined by the local requirements.

(E) The composting of biosolids at a wastewater treatment plant provided that the facility has received a permit in accordance with the Department's Biosolids Regulations No. 64, 5 CCR 1002-64, promulgated pursuant to Section 25-8-205(1)(e), C.R.S.

14.1.3 Compliance Schedules

(A) An application to amend a facility's certificate of designation to incorporate the requirements of this Section 14 must be filed by the owner or operator of existing composting facilities with the local governing authority within six (6) months of the effective date of this Section 14.

(B) If an existing facility does not have a certificate of designation, and one is required under § 30-20-102, C.R.S. then the owner or operator of facility must submit an application for certificate of designation to the local governing authority within six (6) months of the effective date of this Section 14.

(C) For existing Class III and Class IV facilities not requiring a certificate of designation, the owner or operator must submit to the Department and the local governing authority within six (6) months of the effective date of this Section 14 either a revised engineering design and operations plan (in the case of facilities that already have an approved plan) or a new engineering design and operation plan incorporating the requirements of this Section 14.

(D) Within six (6) months of the effective date of this Section 14, facilities that cannot meet the compliance schedule specified in 14.1.3(A), 14.1.3(B) or 14.1.3(C) must make a demonstration to the Department showing why this compliance schedule cannot be met, and must request an alternate schedule for coming into compliance with this Section 14. Such extension shall be subject to Department approval, but the deadline for coming into compliance may be extended no longer than eighteen (18) months after the effective date of this Section 14.

(E) Within twelve (12) months of the effective date of this Section 14, an existing Class V composting facility must have onsite a completed Composting Plan that complies with Section 14.11.

14.1.4 Compost Feedstock Types

The categories described below are not intended to be all-inclusive, but rather are set forth as guidance to assist owners and operators in determining the appropriate classification of a proposed or existing

composting facility. The Department recognizes that case-by-case determinations may be necessary concerning selection of an appropriate category for a particular feedstock. Accordingly, the Department may require that analytical and/or process information be supplied by the owner or operator to assist in making such determinations.

Type 1: Agricultural crop residues, manure, untreated wood wastes, yard, paper and green wastes.

Type 2: Animal material, animal mortalities and source separated food wastes.

Type 3: Biosolids, solid waste, processed solid waste and sludges.

14.2 COMPOSTING FACILITY CLASSIFICATIONS

Classification of composting facilities is based upon the types of feedstocks received by the facility and the nature of the operation.

14.2.1 Class I Composting Facility

A Class I composting facility is one that:

(A) Is permitted to receive Types 1, 2 or 3 feedstocks;

(B) Is not restricted as to the volume of feedstocks, bulking agent or in-process material that may be present on the site at any given time; and

(C) May accept feedstocks from multiple generators at one location for processing.

14.2.2 Class II Composting Facility

A Class II composting facility is one that:

(A) Is permitted to receive only Type 1 and Type 2 feedstocks;

(B) Is not restricted as to the volume of feedstocks, bulking agent or in-process material that may be present on the site at any given time; and

(C) May accept feedstocks from multiple generators at one location for processing.

14.2.3 Class III Composting Facility

A Class III composting facility is one that:

(A) Receives only Type 1 feedstocks;

(B) Is limited to a total volume of 50,000 cubic yards of feedstock, in-process and bulking material on-site at any one time (finished compost does not count toward this total); and

(C) May accept feedstocks from multiple generators at one location for processing.

14.2.4 Class IV Composting Facility

A Class IV composting facility is one that:

(A) Receives only Type 1 feedstocks and/or foodwaste;

(B) Is limited to a total volume of 5,000 cubic yards of feedstock, in-process and bulking material on-site at any one time (finished qualified product does not count toward this total);

(C) Limits composting activities to waste generated on-site and to an area two (2) acres in size or less; and

(D) Fits into one of the following facility categories:

(1) A vermicomposting operation that uses Type 1 feedstocks and/or food waste as growth media; or

(2) A horticultural or landscaping operation that accumulates and composts only tree and yard waste from their business operations and only imports other compatible material types and only in quantities necessary for effective composting. Composting occurs at the location where tree and yard waste is processed; or

(3) Institutions that compost waste at the site where they are generated and only imports other compatible material types and only in quantities necessary for effective composting. Institutions may include, but are not limited to, correctional facilities, schools, parks, community centers and golf courses.

14.2.5 Class V Composting Facility

The Class V composting facility classification is for agricultural composters that do not meet the requirements in Section 14.1.2(D). A Class V composting facility is one that:

(A) Conducts composting operations at the site of waste generation or on agriculturally zoned property owned by the generator; and

(B) Uses only agricultural waste generated on site and other compatible material types and only in quantities necessary for effective composting.

14.3 GENERAL REQUIREMENTS FOR CLASS I, II and III COMPOSTING FACILITIES

This Section applies to Class I, II, and III composting facilities.

14.3.1 Facility Design Requirements

(A) **Review by Professional Engineer**: All engineered features of the facility design shall be reviewed and sealed by a Colorado registered professional engineer.

(B) **Surface Water Control**: Surface water control features at compost facilities shall be designed, constructed and maintained:

(1) To prevent flow onto the facility during peak discharge from a 25-year, 24-hour storm event;

(2) To control and collect the on-site run-off water volume resulting from a 25-year, 24-hour storm event;

(3) To contain and manage leachate;

(4) Such that all storm water/leachate containment structures shall be constructed of a minimum of eighteen (18) inches of compacted soil or in-situ earthen material or other low permeability materials to achieve a hydraulic conductivity of less than or equal to 1×10^{-6} cm/sec;

(5) Alternative liner designs that perform in an equivalent manner to the Section 14.3.1(B)(4) liner design may be approved by the Department and the local governing authority based on a demonstration of alternate liner design's equivalent performance, the waste type and site specific technical information;

(6) All stormwater/leachate containment structures shall be dewatered within thirty (30) calendar days of a storm event so that full runoff storage capacity is maintained; and

(7) Such that storm water/leachate containment structures shall be designed and maintained with a minimum 2 feet of freeboard measured from lowest elevation at any given time.

(C) **Leachate Control**: A low permeability workpad area may be necessary to manage leachate generated from composting operations. Site-specific conditions, operational practices, feedstock, bulking material and liquid wastes will be evaluated to determine the necessity for a workpad. The workpad shall be an engineered feature that is designed and constructed to:

(1) Ensure ground water protection;

(2) Be of sufficient slope to direct storm water/leachate to the appropriate collection and storage system; and

(3) Withstand various temperatures and allow for heavy equipment operation, without damage or failure.

14.3.2 Facility Construction Requirements

(A) Composting facilities shall implement their approved quality assurance and quality control plan in constructing all engineered structures at the facility.

(B) A construction certification report shall be submitted to the Department for review and approval, at a minimum, sixty (60) calendar days prior to acceptance of feedstock, liquid waste or bulking material.

(C) The owner or operator of a composting facility shall provide copies of the construction record drawings for engineered features at the site and a report documenting facility construction, including the results of observations and testing carried out as part of the construction quality assurance plan, to the Department and local governing authority.

(D) Facilities shall not commence operation until the Department has determined that the construction was completed in accordance with the approved engineering report/plans and specifications and has approved the construction documentation in writing.

14.3.3 Facility Operation Requirements

(A) **Prohibited Materials**: No composting facility may accept asbestos or asbestos containing materials, infectious waste, hazardous waste, PCB waste or lead-acid batteries.

(B) **Financial Assurance**: The owner or operator of a composting facility shall establish financial assurance in accordance with Section 1.8 of these Solid Waste Regulations.

(C) **Surface Water Control**: A composting facility shall control surface water flowing onto the site and prevent surface water from leaving the site. All stormwater/leachate containment structures shall be dewatered within thirty (30) calendar days of a storm event so that full runoff storage capacity is maintained. Freeboard shall be maintained at a minimum of two (2) feet at all times.

(D) **Nuisance Conditions**: A composting facility shall control on-site and prevent off-site nuisance conditions such as noise, dust, mud, odors, vectors and windblown debris.

(E) **Access Control**: A composting facility shall control access to prevent illegal dumping, prevent unauthorized access and provide for site security both during and after business hours. Effective artificial barriers or natural barriers may be used in lieu of fencing.

(F) **Signage**: A composting facility shall erect and maintain signage that identifies the facility name, emergency contact information, and the materials that will and will not be accepted, and that ensures adequate traffic control.

(G) **Contingency Plan**: A composting facility shall develop, maintain for current site conditions, and keep available at all times, a contingency plan which outlines the corrective or remedial procedures to be taken in the event of:

(1) The delivery of unapproved feedstock, bulking material, liquid waste or other waste materials;

(2) Contamination of surface water or ground water; and

(3) The occurrence of nuisance conditions either on-site or off-site.

(H) **Fire Protection**: A composting facility shall properly implement its approved fire protection plan as required by local fire codes, and such plan shall be kept current with site conditions and compliant with local fire codes.

(I) **Odor Control**: A composting facility shall implement its Department-approved odor management plan as necessary to control on-site and prevent off-site nuisance conditions, including the following:

(1) Develop operational procedures to minimize on-site odors and prevent off-site odors (e.g., incorporating feedstocks with bulking material as soon as practical).

(2) Develop operational procedures to mitigate odors when they occur either on-site or off-site (e.g., use of biofilters).

(3) Develop strategies for mitigating off-site odors (e.g., communication with neighbors, responding to complaints within 24 hours).

(J) **Personnel Training**: A composting facility shall operate under the control of properly trained individuals. Personnel shall be trained to recognize prohibited materials, take action when nuisance conditions occur, and implement emergency procedures when necessary.

(K) **Pathogen Reduction**: The owner or operator of a composting facility shall ensure that the composting process reduces pathogens. The pathogen reduction methodology shall be described in the facility's Design and Operations Plan per Section 14.4. Processes to reduce pathogens include, but are not limited to:

(1) **Windrow composting**: the compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for fifteen (15) days or longer. The fifteen days do not need to be consecutive. During the period when the compost is maintained at 55 degrees Celsius or higher, there shall be a minimum of five (5) turnings of the windrow.

(2) **Within-vessel composting**: the compost material must be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for three (3) days.

(3) **Aerated static pile composting process**: all in-process compost shall be covered with sufficient insulating material, and the pile shall be maintained at a temperature of 55 degrees Celsius (131 degrees Fahrenheit) or higher for a pathogen reduction period of three (3) days.

(4) **Alternative methods of compliance** to meet requirements of Section 14.5.4 may be approved by the Department based on a demonstration that these methods achieve an equivalent pathogen reduction.

(L) **Groundwater Monitoring**: A composting facility which has not received a specific waiver from ground water monitoring from the Department and the local governing authority, shall submit a Ground Water Monitoring Plan to the Department for review and approval in accordance with Section 2.2 of these Solid Waste Regulations. Monitoring parameters will be established based on the hydrogeologic data related to the site, the type of waste stream(s) accepted at the facility and waste characterization analyses performed on incoming wastes.

14.4 ENGINEERING DESIGN AND OPERATION PLAN

The owner or operator of a Class I, II or III composting facility shall submit an engineering Design and Operations (D&O) Plan to the Department and the local governing authority for review and approval, prior to commencing facility construction, composting or feedstock storage operations. The plan shall describe how the facility will comply with all applicable requirements in these Solid Waste Regulations.

14.4.1 All portions of the facility design and site investigation shall be reviewed and sealed by a Colorado registered professional engineer or reviewed and signed by a professional geologist, as appropriate.

14.4.2 Each Design and Operations Plan shall include, at a minimum:

(A) Names, addresses, and telephone numbers of the owner and/or operator, and one or more persons having the authority to take action in the event of an emergency;

(B) Name of the composting facility, the physical address and legal description, location with respect to the nearest town, and mailing address, if different from physical address;

(C) Site maps and plans drawn to a common recognized engineering scale illustrating the facility's surveyed property boundaries, location of processing and storage areas, adjoining properties, roads, fencing, existing and proposed structures, surface water containment and control structures and all proposed monitoring points for surface water and groundwater quality;

(D) Maximum facility capacity and a description of the types of materials to be composted, including:

(1) Estimated quantities of feedstocks;

(2) Estimated quantities of liquid wastes;

(3) Estimated quantities of bulking materials;

(4) Estimated quantities of in-process material; and

(5) Estimated finished product on-site.

(E) Mass balance evaluation for feedstocks, and bulking materials to determine an acceptable mixture for efficient composting;

(F) A detailed description of the composting operation specifically defining all procedures, activities, waste acceptance practice, pathogen reduction methodology and periods of non-activity;

(G) Description of an adequate system of barriers, fencing, or other site controls to prevent unauthorized site access;

(H) Description of site signage;

(I) Description of site security measures taken to ensure the site is secured during business hours to control public access, and prevent unauthorized vehicles and illegal dumping of wastes;

(J) Description of employee training, including recognition of prohibited material, actions taken to mitigate nuisance conditions and implementation of contingency plan;

(K) Design of surface water control system;

(L) An evaluation of potential impacts to existing surface water and ground water quality, including but not limited to:

(1) A description of site geological and hydrogeological conditions;

(2) Floodplain information including evidence that the proposed site is not located within a 100-year floodplain;

(3) Public water supply information including the location of all water supply wells, springs, and surface water intakes within one mile of the proposed facility boundary;

(4) Identification of all lakes, rivers, streams, springs, or bogs, on-site or within one-half mile of the proposed facility boundary;

(5) Depth to, and thickness of, the uppermost aquifer;

(6) Hydrologic properties of the uppermost aquifer;

(7) Information regarding the existing quality of ground water beneath the proposed facility;

(8) The types and regional thickness of unconsolidated soils materials;

(9) The types and regional thickness of consolidated bedrock materials; and

(10) Geologic hazards such as slope stability, faulting, folding, rockfall, landslides, subsidence or erosion potential.

(M) Plans for closure and post closure care of the composting facility as defined further in Sections 14.8 and 14.9;

(N) Contingency plans, describing actions to be taken in the following situations:

(1) The delivery of unapproved feedstock, bulking material, wetting agent or other waste materials;

(2) Contamination of surface water or ground water; and

(3) The occurrence of nuisance conditions either on-site or off-site.

(O) Fire protection plan;

(P) Odor management plan;

(Q) Provision that all engineered features in the facility design be reviewed and sealed by a Colorado professional engineer;

(R) A quality assurance and quality control plan to be reviewed and approved by the Department and the local governing authority for all engineered structures at the facility; and

(S) A detailed description of sampling procedures for testing of finished compost.

14.5 SAMPLING OF FINISHED COMPOST

14.5.1 Compost Standards

(A) The owner or operator of a compost facility (unless exempt under Section 14.1.2) shall ensure that compost to be sold or distributed for off-site use meets the standards set forth in Table 1 of this Section 14, and with Section 14.5.5 below. Compliance with these standards shall not relieve any owner or operator from their obligation to comply with any other applicable agency standards, such as those of the Colorado Department of Agriculture.

TABLE 1
Maximum Constituent Concentration For Compost
Sold Or Distributed For Off-site Use
(mg/kg dry weight basis)

CONSTITUENTS
INORGANICS[1] (mg/kg)
Arsenic
Cadmium
Copper
Lead
Mercury
Nickel
Selenium
Zinc
BIOLOGICAL
Fecal coliform
Salmonella

: Test Methods for Evaluating Solid Waste Physical/Chemical Methods (SW-846) Third Edition, December 1996: As, Cd, Cu, Pb, Ni, Se and Zn by Method 6010 or 7000. Hg by 7471. These documents are available for review at the

[1] Inorganic Methodology

Colorado Department of Public Health and Environment (See § 1.1.2 of these Regulations) and the State Publications Depository Libraries.

(B) The owner or operator of a composting facility shall ensure that:

(1) The density of the fecal coliform present in the compost is less than 1000 Most Probable Number per gram of total solids (dry weight basis); or

(2) The density of Salmonella sp. bacteria in the compost is less than three (3) Most Probable Number per four (4) grams of total solids (dry weight basis) at the time the compost is to be sold or otherwise distributed for use.

14.5.2 Sampling Frequency: Finished compost shall be sampled and tested once every 10,000 cubic yards of compost produced, or annually, whichever is more frequent. The Department, in consultation with the local governing authority, may require additional sampling and testing when a change in feedstocks, bulking material, liquid waste or operational practices warrant greater frequency.

14.5.3 Reintroduction of Finished Product into Compost Process: Finished compost which has been sampled and tested, but to which raw or partially composted feedstock, bulking material, or liquid waste is added prior to, or during distribution, shall be reintroduced into the composting process, re-sampled and re-tested prior to commencing or continuing distribution.

14.5.4 Sampling Methodology: Sample collection, preservation, and analysis shall assure valid and representative analytical results. Sampling procedures shall be described in the facility's design and operation plan.

14.5.5 Additional Testing: The Department may require additional testing of finished compost for constituents not found in Table 1 and at a frequency greater than specified in Section 14.5.2 of this Section 14.

14.5.6 Exceedances: Compost that exceeds the levels specified in Table 1 or as specified in the approved design and operations plan must be:

(A) Reintroduced into the composting process; or

(B) Disposed of at a permitted solid waste disposal facility; or

(C) Otherwise used in a manner approved by the Department and local governing authority.

14.5.7 Unrestricted Use: Compost that satisfies the levels specified in Table 1 and all other parameters identified by the Department per Section 14.5.5 is determined by these criteria to be finished compost and acceptable for unrestricted use. The finished compost is considered to be a product not a waste, and is no longer subject to these Solid Waste Regulations. For those additional constituents identified by the Department under Section 14.5.5 and not found on Table 1, the Department will approve protective unrestricted use constituent concentrations.

14.6 CLASS-SPECIFIC REQUIREMENTS FOR COMPOSTING FACILITIES

14.6.1 Class I Composting Facility Requirements: Class I composting facilities have no limitation as to feedstock type or material volume except as may be specified in the certificate of designation or approved design and operations plan.

(A) No person shall operate a Class I composting facility without having obtained a certificate of designation from the local governing authority, in accordance with Section 1.6 of these Solid Waste Regulations.

(B) The owner or operator of a Class I composting facility shall develop and implement the facility's approved waste characterization plan in accordance with Section 1.2 of these Solid Waste Regulations.

(C) The owner or operator of a Class I composting facility shall only receive those feedstocks, bulking materials and liquid wastes specified in the approved design and operation plans for the facility. Acceptance of composting materials, different from those originally approved, shall be in accordance with the facility's waste characterization plan.

14.6.2 Class II Composting Facility Requirements: Class II composting facilities have no limitation as to material volume, except as may be specified in the certificate of designation or the approved design and operation plan.

(A) No person shall operate a Class II composting facility without having obtained a certificate of designation from the local governing authority, in accordance with Section 1.6 of these Solid Waste Regulations.

(B) The owner or operator of a Class II composting facility shall only receive Type I or Type II feedstock and only receive those liquid wastes specified in the approved design and operation plan.

14.6.3 Class III Composting Facility Requirements: Class III composting facilities satisfying the following provisions do not require a certificate of designation:

(A) The owner or operator of a Class III composting facility shall only receive Type I feedstock and shall only receive those liquid wastes specified in the approved design and operation plan.

(B) The owner or operator of the Class III composting facility shall limit the total volume of feedstock, bulking agent and in-process material on-site at any given time to 50,000 cubic yards or less. Finished qualified product does not count toward this total.

14.6.4 Class IV Composting Facility Requirements: Class IV composting facilities satisfying the following provisions do not require a certificate of designation:

(A) The owner or operator of the Class IV composting facility shall only compost Type I feedstocks and/or food waste generated on the site.

(B) The owner or operator of the Class IV composting facility shall only import other compatible materials of a type and quantity necessary for effective composting.

(C) The owner or operator of a Class IV composting facility shall limit the composting activities to a two-acre area.

(D) The owner or operator of the Class IV composting facility shall limit the total volume of feedstock, in-process and bulking material present on the site at any given time to 5,000 cubic yards. Finished compost does not count toward this total.

(E) Class IV composting facilities are not required to submit a design and operations plan. Instead, the facility shall operate in accordance with the requirements defined in Section 14.11 of these Regulations.

14.6.5 Class V Composting Facility Requirements: Class V composting facilities satisfying the following provisions do not require a certificate of designation:

(A) The owner or operator of the Class V composting facility shall conduct composting operations only at the site of waste generation or on contiguous property owned by the generator.

(B) The owner or operator of the Class V composting facility shall compost only agricultural wastes generated on-site and other compatible materials necessary for effective composting in quantities and types as approved by the Department and local governing authority.

(C) Engineered features or operational plans already approved by the Department would not need to be re-submitted if equivalence is demonstrated (e.g., storm water control features that meet the requirements in the Confined Animal Feeding Operations Control Regulation, 5 CCR 1002-81).

(D) Class V composting facilities are not required to submit a design and operations plan. Instead the facility shall operate in accordance with the requirements defined in Section 14.11 of these Regulations.

14.7 RECORDKEEPING AND REPORTING

14.7.1 Each composting facility shall maintain, at a minimum, the following applicable records:

(A) Type and amount of feedstock(s), liquid waste(s), and bulking material(s) received, processed and remaining on-site;

(B) Amount of finished compost sold, used on-site or distributed off-site;

(C) Water quality monitoring data;

(D) Liquid waste analytical data;

(E) Feedstock analytical data;

(F) Compost analytical data;

(G) Operational monitoring data including time and temperature readings;

(H) Windrow/pile aeration data;

(I) Financial assurance documentation;

(J) Design and operations plan;

(K) Certificate of designation;

(L) Waiver demonstration documentation; and

(M) Facility personnel training records.

14.7.2 These records shall be maintained at the facility, unless otherwise approved by the Department and local governing authority, and shall be made available to the local governing authority, and the Department, upon request during business hours.

14.7.3 Each composting facility shall submit an annual report by May 1st of each year to the Department and local governing authority. The annual report shall provide the total volume of materials received at the facility during the previous calendar year, including by type:

(A) The quantity of finished product used on-site, sold, or distributed off-site; and

(B) The quantity and type of feedstock, liquid waste, and bulking material received, processed, and remaining on-site.

14.8 CLOSURE PLAN

14.8.1 Each Design and Operations Plan shall include a provision for closure of a composting facility.

14.8.2 Closure Plan

If at any time a composting facility ceases operation, including the discontinued receipt, processing and sale of materials for more than one hundred eighty (180) days, the owner or operator shall notify the Department and local governing authority and unless otherwise approved by the Department and the local governing authority, the owner or operator must begin implementation of its Closure Plan. Closure activities shall not exceed ninety (90) days in length. Extension of the closure period may be granted by the Department and the local governing authority if the owner or operator demonstrates that closure will, of necessity, take longer than ninety (90) days and all measures necessary to prevent threats to human health and the environment will be taken.

14.8.3 The Closure Plan shall contain, at a minimum:

(A) A complete and accurate description and schedule of all steps necessary to achieve closure of the composting facility. Such steps shall include the following criteria:

(1) The removal of all stored raw feedstock, bulking material, and liquid waste to a permitted solid waste facility or a facility where the wastes may be beneficially reused with approval from the Department and local governing authority;

(2) The removal of all other wastes on-site, including those wastes generated by closure activities, to a permitted solid waste facility;

(3) The removal of all workpad areas;

(4) The removal of all storm water control and collection structures, unless specifically approved by the Department and local governing authority to remain on-site;

(5) The removal of all tanks, structures and equipment;

(6) Site restoration including regrading and revegetation; and

(7) The removal of partially composted feedstocks and bulking material to a permitted solid waste facility or another compost facility with approval from the Department and local governing authority.

14.8.4 Within fourteen (14) calendar days of commencing implementation of the Closure Plan, the facility shall provide written notification to the Department and the local governing authority.

14.8.5 Within thirty (30) calendar days of completing closure activities the owner/operator of the facility shall provide written notification to the Department and local governing authority to document that all the requirements and conditions of the closure plan have been achieved.

14.8.6 Following closure of the facility, a notation must be placed on the deed notifying any potential purchaser that the property has been used as a composting facility.

14.9 POST-CLOSURE CARE AND MAINTENANCE

14.9.1 Following closure of the composting facility the owner or operator must conduct post-closure care, which shall consist of at least the following:

(A) Continued monitoring, sampling and testing of soil, groundwater or surface water as defined in the post-closure plan;

(B) Inspection and maintenance of any cover material or vegetation; and

(C) An annual report submitted to the Department and local governing authority detailing post-closure care activities during the prior year.

14.9.2 The post-closure care and maintenance period shall be for a minimum of five (5) years. The length of the post-closure care period may be:

(A) Decreased by the Department after consultation with the local governing authority if the owner or operator demonstrates that the reduced period is sufficient to protect human health and the environment; or

(B) Increased by the Department after consultation with the local governing authority if it is determined that the lengthened period is necessary to protect human health and the environment.

14.9.3 Following completion of the post-closure care period the owner or operator must submit a certification signed by an independent Colorado registered professional engineer for approval by the Department and the local governing authority, verifying that post-closure care has been completed in accordance with the post-closure plan and has been placed in the operating record.

14.10 REQUIREMENTS FOR PILOT PROJECTS

14.10.1 A written request shall be submitted to the Department, and local governing authority describing the objectives of a proposed pilot project, how the pilot will integrate with the existing or proposed facility, methodology and protocol to be used, data to be gathered, analysis to be, performed and detailed information on the operational activities for the pilot and its projected timeframe. Written approval must be given by the Department, and local governing authority before proceeding. A pilot project shall not exceed one (1) year in length.

14.10.2 Request for Pilot Project. A pilot request shall include the following minimum criteria:

A. General Data:

(1) Names, addresses and telephone numbers of the owner and/or operator;

(2) Legal description, physical address, and mailing address of the proposed site;

(3) Signage to ensure adequate traffic control and a telephone number to contact in case of an emergency;

(4) A provision that the site must be attended or secured during businesses hours, to control public access, prevent unauthorized vehicles and illegal dumping of wastes; and

(5) A site map drawn to a common recognized engineering scale illustrating all proposed roads, fencing, existing and proposed structures, adjacent properties, storm water control and containment features, and processing and storage areas.

B. Operations Data:

(1) A description of feedstock type(s);

(2) A description of bulking material(s);

(3) A description of liquid waste(s);

(4) A description of proposed use for finished and unfinished compost;

(5) Anticipated volume of liquid waste, bulking and feedstock materials to be received, and finished compost produced during the duration of the pilot project;

(6) A detailed description of the composting operations;

(7) Access control;

(8) Odor management plan;

(9) Fire protection plan that is in accordance with the local fire codes and requirements;

(10) Storm water run-on, runoff, and containment features supported by calculations demonstrating that these features meet, at a minimum, the design requirements described in Section 14.3.1(B);

(11) Recordkeeping for all operational activities;

(12) A description of the work pad; and

(13) A contingency plan addressing actions required in the event unacceptable materials are discovered, contamination or discharge of waters from the site occurs, or nuisance conditions occur either on-site or off-site.

C. Environmental Issues:

Evaluation of the potential for impacts to ground water and surface water.

D. Compost Standards and Quality:

(1) Sampling procedures;

(2) Pathogen reduction methodology; and

(3) Testing procedures.

E. Closure Plan:

A closure plan shall be provided describing the actions necessary to adequately close the facility. The closure plan shall follow the requirements described in 14.8.3. Closure activities must be completed within thirty (30) days after pilot project completion or termination.

F. Financial Assurance:

Financial assurance shall be established pursuant to Section 1.8 of these Regulations.

G. Project Closeout Report:

A project closeout report shall be submitted to the Department and local governing authority within ninety (90) calendar days after pilot project completion or termination. The closeout report should include, at a minimum, the following information:

(1) A summary of each objective and whether the objective was achieved;

(2) Identification of anticipated and unanticipated results;

(3) Environmental impacts resulting from the pilot;

(4) Successes and failures; and

(5) Data from test results of compost material.

14.10.3 Conversion to Permanent Facility:

To continue operation of a pilot project as a permanent approved composting facility, the owner or operator shall apply for a certificate of designation or submit a design and operations plan, whichever is appropriate for the composting classification, within ninety (90) calendar days of pilot project completion.

14.11 COMPOSTING PLAN REQUIREMENTS FOR CLASS IV AND CLASS V COMPOSTING FACILITIES

14.11.1 Composting Plan: The owner or operator shall develop a written composting plan for the facility prior to commencing facility construction, composting or feedstock storage operations. The plan shall be maintained at the facility, and available for review upon request by the Department or local governing authority during business hours.

14.11.2 Notification: The owner or operator of a Class IV or Class V composting facility shall notify the Department in writing of their facility's composting activities. The written notification shall include, at a minimum, the following information:

(A) Names, addresses, and telephone numbers of the owner and/or operator, and one or more persons having the authority to take action in the event of an emergency; and

(B) Name of the composting facility, the physical address and legal description, location with respect to the nearest town, and mailing address, if different from physical address.

14.11.3 General Requirements:

(A) Site maps and plans drawn to a common recognized engineering scale illustrating the facility's surveyed property boundaries, location of processing and storage areas, adjoining properties, roads, fencing, existing and proposed structures, surface water containment and control structures and all proposed monitoring points for surface water and groundwater quality;

(B) Maximum facility capacity and a description and volume estimate of the types of materials to be composted, including: feedstocks; liquid waste, bulking material, additives and amendments.

(C) Evaluation to determine appropriate mix of feedstocks, bulking material and amendments for efficient composting;

(D) A detailed description of the composting operation specifically defining all procedures, activities, waste acceptance practice, pathogen reduction methodology and periods of non-activity;

(E) Plans for closure and post closure care of the composting facility as defined in Sections 14.8 and 14.9, respectively;

(F) Odor Management Plan.

(1) Develop operational procedures to minimize on-site odors and prevent off-site odors. (e.g., incorporating feedstocks with bulking material as soon as practical);

(2) Develop operational procedures to mitigate odors when they occur either on-site or off-site (e.g., use of biofilters); and

(3) Develop strategies for mitigating off-site odors (e.g., communication with neighbors, responding to complaints within 24 hours).

(G) A sampling plan describing procedures for sampling and testing finished compost. Testing requirements shall achieve at a minimum those standards defined in Section 14.5.

(H) All engineered features of the facility design shall be reviewed and sealed by a Colorado registered professional engineer or evaluation of potential impacts to groundwater reviewed and signed by a professional geologist, as appropriate.

14.11.4 Specific Requirements

(A) **Surface Water Control**: Surface water control features at compost facilities shall be designed, constructed and maintained:

(1) To prevent flow onto the facility during peak discharge from a 25-year, 24-hour storm event;

(2) To control and collect the on-site run-off water volume resulting from a 25-year, 24-hour storm event;

(3) To contain and manage leachate in a storage system;

(4) Such that all storm water/leachate containment structures shall be constructed of a minimum of eighteen (18) inches of compacted soil or in-situ earthen material or other low permeability materials (e.g., geomembrane) to achieve a hydraulic conductivity of less than or equal to 1×10^{-6} cm/sec;

(5) Such that storm water/leachate containment structures shall be designed and maintained with a minimum 2 feet of freeboard measured from lowest elevation at any given time; and

(6) Whenever the design capacity of impoundment is less than the volume required to store runoff from the designed storm event, the structures must be dewatered to a level that restores the required capacity once soils on a land application or the in process composting material site has the water holding capacity to receive the wastewater.

(B) **Leachate Control**: A low permeability workpad area may be necessary to manage leachate generated from composting operations. Site-specific conditions, operational practices, feedstock, bulking material and liquid waste types will be evaluated to determine the necessity for a workpad. The workpad shall be an engineered structure that is designed and constructed to:

(1) Ensure ground water protection;

(2) Be of sufficient slope to direct storm water/leachate to the appropriate collection and storage system; and

(3) Withstand various temperatures and allow for heavy equipment operation, without damage or failure.

14.11.5 Facility Operation Requirements

(A) **Prohibited Materials**: No composting facility may accept asbestos or asbestos-containing materials, infectious waste, hazardous waste, PCB waste or lead-acid batteries.

(B) **Financial Assurance**: The owner or operator of a composting facility shall establish financial assurance in accordance with Section 1.8 of these Solid Waste Regulations.

(C) **Nuisance Conditions**: A composting facility shall control on-site and prevent off-site nuisance conditions such as noise, dust, mud, odors, vectors and windblown debris.

(D) **Access Control**: A composting facility shall control access to prevent illegal dumping.

(E) **Signage**: A composting facility shall erect and maintain signage that identifies the facility name, emergency contact information, and the materials that will and will not be accepted, and that ensures adequate traffic control.

(F) **Contingency Plan**: A composting facility shall develop, maintain for current site conditions, and keep available at all times, a contingency plan which outlines the corrective or remedial procedures to be taken in the event of:

(1) The delivery of unapproved feedstock, bulking material, wetting agent or other waste materials;

(2) Contamination of surface water or ground water; and

(3) The occurrence of nuisance conditions either on-site or off-site.

(G) **Personnel Training Plan**: A composting facility shall operate under the control of properly trained individuals. Personnel shall be trained to recognize prohibited materials, take action when nuisance conditions occur, and implement emergency procedures when necessary.

(H) **Pathogen Reduction**: The owner or operator of a composting facility shall ensure that the composting process reduces pathogens. The pathogen reduction methodology shall be described in the facility's Composting Plan.

(I) **Recordkeeping**:
Recordkeeping and reporting shall follow the requirements defined in Section 14.7.

Sec. 22a-207. (Formerly Sec. 19-524a). Definitions. For the purposes of this chapter and chapter 103b:

(1) "Commissioner" means the Commissioner of Environmental Protection or his authorized agent;

(2) "Department" means the Department of Environmental Protection;

(3) "Solid waste" means unwanted or discarded solid, liquid, semisolid or contained gaseous material, including, but not limited to, demolition debris, material burned or otherwise processed at a resources recovery facility or incinerator, material processed at a recycling facility and sludges or other residue from a water pollution abatement facility, water supply treatment plant or air pollution control facility;

(4) "Solid waste facility" means any solid waste disposal area, volume reduction plant, transfer station, wood-burning facility or biomedical waste treatment facility;

(5) "Volume reduction plant" means any location or structure, whether located on land or water, where more than two thousand pounds per hour of solid waste generated elsewhere may be reduced in volume, including but not limited to, resources recovery facilities and other incinerators, recycling facilities, pulverizers, compactors, shredders, balers and composting facilities;

(6) "Solid waste disposal area" means any location, including a landfill or other land disposal site, used for the disposal of more than ten cubic yards of solid waste. For purposes of this subdivision, "disposal" means the placement of material at a location with the intent to leave it at such location indefinitely, or to fail to remove material from a location within forty-five days, but does not mean the placement of material required to be recycled under section 22a-241b in a location on the premises of a recycling facility, provided such facility is in compliance with all requirements of state or federal law and any permits required thereunder;

(7) "Recycling" means the processing of solid waste to reclaim material therefrom;

(8) "Recycling facility" or "recycling center" means land and appurtenances thereon and structures where recycling is conducted, including but not limited to, an intermediate processing center as defined in section 22a-260;

(9) "Resources recovery facility" means a facility utilizing processes to reclaim energy from municipal solid waste;

(10) "Transfer station" means any location or structure, whether located on land or water, where more than ten cubic yards of solid waste, generated elsewhere, may be stored for transfer or transferred from transportation units and placed in other transportation units for movement to another location, whether or not such waste is stored at the location prior to transfer;

(11) "Municipality" means any town, city or borough within the state;

(12) "Municipal authority" means the local governing body having legal jurisdiction over solid waste management within its corporate limits which shall be, in the case of any municipality which adopts a charter provision or ordinance pursuant to section 7-273aa, the municipal resource recovery authority;

(13) "Regional authority" means the administrative body delegated the responsibility of solid waste management for two or more municipalities which have joined together by creating a district or signing an interlocal agreement or signing a mutual contract for a definitive period of time;

(14) "Region" means two or more municipalities which have joined together by creating a district or signing an interlocal agreement or signing a mutual contract for a definite period of time concerning solid waste management within such municipalities;

(15) "Solid waste management plan" means an administrative and financial plan for an area which considers solid waste storage, collection, transportation, volume reduction, recycling, reclamation and disposal practices for a twenty-year period, or extensions thereof;

(16) "Municipal collection" means solid waste collection from all residents thereof by a municipal authority;

(17) "Contract collection" means collection by a private collector under a formal agreement with a municipal authority in which the rights and duties of the respective parties are set forth;

(18) "Solid waste planning region" means those municipalities within the defined boundaries of regional planning agencies or as prescribed in the state solid waste management plan;

(19) "Biomedical waste" means infectious waste, pathological waste and chemotherapy waste generated during the administration of medical care or the performance of medical research involving humans or animals and which, because of its quantity, character or composition, has been determined by the commissioner to require special handling but excluding any solid waste which has been classified by the department as a hazardous waste pursuant to section 22a-115 or is a radioactive material regulated pursuant to section 22a-148;

(20) "Generator of biomedical waste" means any person who owns or operates a facility that produces biomedical waste in any quantity, including, but not limited to the following: General hospitals, skilled nursing facilities or convalescent hospitals, intermediate care facilities, chronic dialysis clinics, free clinics, health maintenance organizations, surgical clinics, acute psychiatric hospitals, laboratories, medical buildings, physicians' offices, veterinarians, dental offices and funeral homes. Where more than one generator is located in the same building, each individual business entity shall be considered a separate generator;

(21) "Biomedical waste treatment facility" means a solid waste facility capable of storing, treating or disposing of any amount of biomedical waste, excluding any facility where the only biomedical waste treated, stored or disposed of is biomedical waste generated at the site and any licensed acute care facility or licensed regional household hazardous waste collection facility accepting untreated solid waste generated during the administration of medical care in a single or multiple family household by a resident of such household;

(22) "Throughput" means the amount of municipal solid waste processed by a resources recovery facility determined by dividing the average annual tonnage of municipal solid waste by three hundred sixty-five days;

(23) "Municipal solid waste" means solid waste from residential, commercial and industrial sources, excluding solid waste consisting of significant quantities of hazardous waste as defined in section 22a-115, land-clearing debris, demolition debris, biomedical waste, sewage sludge and scrap metal;

(24) "Wood-burning facility" means a facility, as defined in section 16-50i, whose principal function is energy recovery from wood for commercial purposes. "Wood-burning facility" does not mean a biomass gasification plant that utilizes land clearing debris, tree stumps or other biomass that regenerates,

or the use of which will not result in a depletion of, resources;

(25) "Person" has the same meaning as in subsection (c) of section 22a-2;

(26) "Closure plan" means a comprehensive written plan, including maps, prepared by a professional engineer licensed by the state that details the closure of a solid waste disposal area and that addresses final cover design, stormwater controls, landfill gas controls, water quality monitoring, leachate controls, postclosure maintenance and monitoring, financial assurance for closure and postclosure activities, postclosure use and any other information that the commissioner determines is necessary to protect human health and the environment from the effects of the solid waste disposal areas.

(1971, P.A. 845, S. 1; June, 1971, P.A. 1, S. 5; P.A. 73-646, S. 1; P.A. 79-605, S. 14, 17; P.A. 81-213, S. 1, 18; P.A. 87-531, S. 1; P.A. 88-341, S. 1; P.A. 89-386, S. 1, 24; P.A. 91-55, S. 1; P.A. 92-249, S. 2; P.A. 94-182, S. 1, 4; P.A. 01-204, S. 8, 29; June Sp. Sess. P.A. 01-9, S. 73, 131; P.A. 03-19, S. 64; P.A. 06-76, S. 25.)

History: June, 1971 act replaced commissioner and department of health with commissioner and department of environmental protection; P.A. 73-646 replaced "scrap metals" with "scrap materials" in Subdiv. (c), redefined "solid waste facility" to include resource recovery facilities and limited definition to facilities handling more than five tons of solid waste per year, redefined "volume reduction plant" as one which can process more than two thousand pounds of waste input per hour and included plants processing refuse for recovery and reuse; P.A. 79-605 rephrased Subdiv. (c) defining "solid waste"; P.A. 81-213 redefined "municipal authority" in Subsec. (j) to include municipal resource recovery authorities under chapter 103b and extended applicability of definitions to that chapter; Sec. 19-524a transferred to Sec. 22a-207 in 1983 and alphabetic Subdiv. indicators replaced editorially by the Revisors with numeric indicators; P.A. 87-531 deleted reference to approval of department of environmental protection in definition of "solid waste disposal area"; P.A. 88-341 amended Subdiv. (4) to redefine "solid waste facility" to include biomedical waste treatment facilities and added definitions for "biomedical waste", "generator of biomedical waste" and "biomedical waste treatment facility"; P.A. 89-386 redefined "solid waste", "solid waste facility", "volume reduction plant", "solid waste disposal area", and "recycling", substituted definition of "resources recovery facility" for definition of "resources recovery system", added definitions of "recycling facility" or "center", "transfer station", "throughput", "municipal solid waste" and "wood burning facility" and renumbered the terms accordingly; P.A. 91-55 rephrased the definition of "solid waste" and broadened the definitions of "volume reduction plant", "solid waste disposal area" and "transfer station"; P.A. 92-249 amended Subdiv. (6) to define "disposal"; P.A. 94-182 amended Subdiv. (19) to limit the definition of "biomedical waste" to infectious waste, pathological waste and chemotherapy waste, amended Subdiv. (20) to remove in-patient care facilities from the definition of "generator of biomedical waste" and to specify that multiple generators within one building count as separate generators, and amended Subdiv. (21) to exclude licensed acute care facilities and certain licensed regional household hazardous waste collection facilities from the definition of "biomedical waste treatment facility", effective July 1, 1994; P.A. 01-204 amended Subdiv. (24) to exclude biomass gasification plants from the definition of "wood-burning facility", effective July 11, 2001; June Sp. Sess. P.A. 01-9 revised effective date of P.A. 01-204 but without affecting this section; P.A. 03-19 made technical changes in Subdiv. (24), effective May 12, 2003; P.A. 06-76 added Subdivs. (25) and (26) defining "person" and "closure plan", respectively.

Cited. 192 C. 591. Cited. 225 C. 731. Cited. 227 C. 175.

Cited. 17 CA 17; judgment reversed, see 212 C. 570.

Subdiv. (1):

Cited. 234 C. 312.

Subdiv. (2):

Cited. 234 C. 312.

Subdiv. (3):

Cited. 215 C. 82. Cited. 218 C. 580. Cited. 226 C. 205. Cited. 239 C. 284.

Subdiv. (4):

1971, P.A. 845, S. 1(d) cited. 17 CA 17; judgment reversed, see 212 C. 570. Cited. 215 C. 82. Cited. 218 C. 580. Cited. 224 C. 627. Cited. 226 C. 205.

Subdiv. (5):

Cited. 215 C. 82.

Subdiv. (6):

Cited. 215 C. 82. Cited. 218 C. 580. Cited. 226 C. 205.

Subdiv. (9):

Cited. 224 C. 627.

Sec. 22a-207a. Definitions applicable to sections 22a-208d, 22a-208q, 22a-208r and 22a-228(b). As used in sections 22a-208d, 22a-208q and subsection (b) of section 22a-228: (1) "Composting" means a process of accelerated biological decomposition of organic material under controlled conditions; (2) "mixed municipal solid waste" means municipal solid waste that consists of mixtures of solid wastes which have not been separated at the source of generation or processed into discrete, homogeneous waste streams such as glass, paper, plastic, aluminum or tire waste streams provided such wastes shall not include any material required to be recycled pursuant to section 22a-241b, and (3) "mixed municipal solid waste composting facility" means a volume reduction plant where mixed municipal solid waste is processed using composting technology.

(P.A. 91-293, S. 1, 9; P.A. 95-99, S. 3, 5.)

History: P.A. 95-99 removed a reference to former Sec. 22a-208r, repealed elsewhere in the act, effective July 1, 1995.

Sec. 22a-208a. Permit for construction, alteration or operation of solid waste facility. (a) The Commissioner of Environmental Protection may issue, deny, modify, renew, suspend, revoke or transfer a permit, under such conditions as he may prescribe and upon submission of such information as he may require, for the construction, alteration and operation of solid waste facilities, in accordance with the provisions of this chapter and regulations adopted pursuant to this chapter. Notwithstanding the provisions of this section, the commissioner shall not issue (1) a permit for a solid waste land disposal facility on former railroad property until July 1, 1989, unless the commissioner makes a written determination that such facility is necessary to meet the solid waste disposal needs of the state and will not result in a substantial excess capacity of solid waste land disposal areas or disrupt the orderly transportation of or disposal of solid waste in the area affected by the facility, or (2) an operational permit for a resources recovery facility unless the applicant has submitted a plan pursuant to section 22a-208g for the disposal or recycling of ash residue expected to be generated at the facility in the first five years of operation. In making a decision to grant or deny a permit to construct a solid waste land disposal facility, including a vertical or horizontal landfill expansion, the commissioner shall consider the character of the neighborhood in which such facility is located and may impose requirements for hours and routes of truck traffic, security and fencing and for measures to prevent the blowing of dust and debris and to minimize

insects, rodents and odors. In making a decision to grant or deny a permit to construct or operate a new transfer station, the commissioner shall consider whether such transfer station will result in disproportionately high adverse human health or environmental effects. In making a decision to grant or deny a permit to construct an ash residue disposal area, the commissioner shall consider any provision which the applicant shall make for a double liner, a leachate collection or detection system and the cost of transportation and disposal of ash residue at the site under consideration.

(b) No person or municipality shall establish, construct or operate a solid waste facility without a permit issued by the commissioner under this section. An application for such permit shall be submitted on a form prescribed by the commissioner, include such information as the commissioner may require, including, but not limited to, a closure plan for such facility, and be accompanied by a fee prescribed in regulations adopted in accordance with chapter 54. Notwithstanding any provision, references to a permit to construct or a permit to operate in a regulation adopted pursuant to section 22a-209 shall be deemed to mean a permit as required by this subsection. The applicant shall send a written notification of any application for such permit to the chief elected official of each municipality in which the proposed facility is to be located, within five business days of the date on which any such application is filed.

(c) Upon written notice from the commissioner and in accordance with a schedule specified by the commissioner in such written notice, any person or municipality who owns an unpermitted solid waste disposal area shall (1) submit a closure plan for the commissioner's review and written approval, provide public notice of such proposed plan in a manner prescribed by regulations adopted pursuant to section 22a-133k and close and maintain such area after closure in accordance with the approved closure plan, or (2) remediate such disposal area in accordance with a remediation plan approved by the commissioner or verified by a licensed environmental professional pursuant to section 22a-134a, 22a-134x or 22a-133y or pursuant to an order of the commissioner. A fee of three thousand dollars shall accompany any closure plan submitted pursuant to this subsection. The commissioner may require the owner of a solid waste disposal area to post sufficient performance bond or other security to ensure compliance with the approved closure plan. The commissioner may approve a modification to a closure plan for a solid waste disposal area. A fee of five hundred dollars shall accompany the request for such modification. The commissioner may reduce or waive the fees required by this subsection in cases of financial hardship and may modify such fees in regulations adopted in accordance with chapter 54. The commissioner may require a person or municipality to provide public notice of a proposed modification of a closure plan if the modification involves any activity that would disrupt the solid waste or change the use of the solid waste disposal area. Notwithstanding the provisions of this subsection, the commissioner may order a person or municipality who establishes or constructs a solid waste disposal area without first obtaining a permit as required by subsection (b) of this section to remove any solid waste disposed at such area, to remediate any pollution caused by such waste, and to properly dispose of such waste at a lawfully operated solid waste facility.

(d) (1) No person or municipality who holds a permit issued under this section shall alter the design or method of operation of the permitted facility without first obtaining a modified permit. For the purposes of this section and sections 22a-208, 22a-208b, 22a-220a, 22a-225 and 22a-226, "alter" means to change to any substantive degree the design, capacity, volume process or operation of a solid waste facility and includes, but is not limited to, changes in the approved capacity or composition of solid waste disposed of, processed, reduced, stored or recycled at the facility. The commissioner may approve, in writing, a modification of a closure plan for a closed permitted solid waste disposal area without modifying the permit for such area. The commissioner may require a person who, or a municipality that, requests such modification to provide public notice of a proposed modification of a closure plan if the modification involves any activity that would disrupt the solid waste or change the use of the solid waste disposal area. A fee of five hundred dollars shall accompany any request for such modification of a closure plan. The commissioner may reduce or waive such fee in cases of financial hardship and may modify such fee in

accordance with regulations adopted in accordance with chapter 54.

(2) Changes in design, processes or operations, including the addition of thermal oxidizers or other air pollution control equipment, made to mitigate, correct or abate odors from a solid waste facility that is owned or operated by the Connecticut Resources Recovery Authority and that contracts with more than fifty municipalities, shall not be considered an alteration requiring a modified permit or minor permit amendment under this chapter. In addition, notwithstanding any provision of the general statutes or regulation adopted pursuant to said statutes, any such change shall not be considered a modification or new stationary source requiring a permit to construct or operate under chapter 446c or under any regulation adopted pursuant to chapter 446c, unless such change is a major modification or a major stationary source requiring a permit under the federal Clean Air Act Amendments of 1990. Any person making any such change to an odor control system at such a facility shall, not more than thirty days after making such change, submit a written report to the commissioner fully describing the changes made and the reason for such changes for the commissioner's review and comment. Nothing in this subdivision shall affect the commissioner's authority to take any other action to enforce the requirements of this title.

(e) The commissioner may hold a public hearing prior to approving or denying an application if in his discretion the public interest will be best served thereby, and shall hold a hearing upon receipt of a petition signed by at least twenty-five persons. The commissioner may amend a permit to construct or to operate, without hearing, for minor changes in the facility design, practices or equipment that would not in his judgment significantly change the nature of the facility or its impact on the environment. Notwithstanding the provisions of this subsection, the commissioner shall conduct a public hearing on an application for a permit to construct a new solid waste disposal area. Such public hearing shall be commenced in the municipality in which the facility is to be located or a location in close proximity to said municipality. Notwithstanding the provisions of this subsection, if a hearing has been held on and after July 1, 1993, on an application for a permit to construct or alter a solid waste facility, the commissioner shall not hold a hearing on an application for a permit to operate such facility.

(f) The qualifications of the operator or operators of any solid waste facility and any person other than a municipality owning such a facility shall be subject to the approval of the commissioner. The commissioner shall establish requirements for the presence of approved operators at solid waste facilities. The commissioner may develop, offer or sponsor training programs for operators of solid waste facilities and require participation therein.

(g) Whenever the commissioner issues a permit to construct a solid waste facility, he shall cause a certified copy thereof to be filed on the land records in the town wherein the facility will be located.

(h) On and after July 1, 1996, fees required pursuant to this section shall be as prescribed by regulations adopted by the commissioner in accordance with chapter 54. In adopting regulations pursuant to this section the commissioner shall perform an evaluation of the actual costs necessary to process, review and render a decision on permit applications reflecting the time, resource commitments and expenses to the Department of Environmental Protection. A similar review shall be performed for annual fees sufficient to represent the actual time to perform and review routine inspections, perform general monitoring of activities and perform appropriate follow-up on results of such activities. For both application fees and annual fees, the commissioner shall include a description of methods used to calculate the costs associated with similar categories of activities in order to demonstrate that the fees for activities within any category are equitable.

(i) (1) The commissioner may issue a general permit for a category of activities which require a permit under this section, except for an activity which is already covered by an individual permit, provided the issuance of the permit is not inconsistent with the requirements of the federal Resource

Conservation and Recovery Act. The commissioner's authority to issue a general permit for certain categories of solid waste facilities shall not include the authority to issue a general permit for resources recovery facilities, biomedical waste facilities, solid waste disposal areas or municipal solid waste composting facilities. Any person or municipality conducting an activity for which a general permit has been issued shall not be required to obtain an individual permit under this section, except as provided in subdivision (3) of this subsection. The general permit may regulate a category of activities which (A) involve the same or substantially similar types of operations, (B) involve the transfer, storage, processing or disposal of the same types of substances, (C) require the same operating conditions or standards, and (D) require the same or similar monitoring, and which in the opinion of the commissioner are more appropriately controlled under a general permit than under an individual permit. The general permit may require any person or municipality proposing to conduct any activity under the general permit to register such activity with the commissioner before it is covered by the general permit. Registration shall be on a form prescribed by the commissioner.

(2) Notwithstanding any provisions of this section, or any regulations adopted thereunder, or of chapter 54, the following procedures shall apply to the issuance, renewal, modification, revocation or suspension of a general permit. (A) A general permit shall be issued for a term specified by the permit and shall clearly define the activity covered thereby and may include such conditions and requirements as the commissioner deems appropriate, including but not limited to, operation and maintenance requirements, management practices, and reporting requirements; (B) the commissioner shall publish notice of intent to issue a general permit in a newspaper having a substantial circulation in the affected area; (C) there shall be a comment period of thirty days following publication of such notice during which interested persons may submit written comments to the commissioner; and (D) the commissioner shall publish notice of the issuance or decision not to issue a general permit in a newspaper having substantial circulation in the affected area. The commissioner may revoke, suspend or modify a general permit in accordance with the notice and comment procedures for issuance of a general permit specified in this subsection. Any person may request that the commissioner issue, modify, suspend or revoke a general permit in accordance with this subsection.

(3) Subsequent to the issuance of a general permit, the commissioner may require a person or municipality whose activity is or may be covered by the general permit to apply for and obtain an individual permit pursuant to subsections (a), (b), (c) and (d) of this section if he determines that an individual permit would better protect the land, air and waters of the state from pollution. The commissioner may require an individual permit under this subdivision in cases including, but not limited to the following: (A) When the owner or operator is not in compliance with the conditions of the general permit; (B) when a change has occurred in the availability of demonstrated technology or practices for the control or abatement of pollution applicable to the activity; (C) when circumstances have changed since the time of the issuance of the general permit so that the activity is no longer appropriately controlled under the general permit, or either a temporary or permanent reduction or elimination of the authorized activity is necessary; or (D) when a relevant change has occurred in the applicability of the federal Resource Conservation and Recovery Act. In making the determination to require an individual permit, the commissioner may consider the location, character and size of the activity, and any other relevant factors. The commissioner may require an individual permit under this subdivision only if the affected person or municipality covered by the general permit has been notified in writing that a permit application is required. This notice shall include a brief statement of the reasons for this decision, an application form, a statement setting a time for the person or municipality to file the application, and a statement that on the effective date of the individual permit the general permit as it applies to the individual permittee shall automatically terminate. The commissioner may grant an extension of time upon the request of the applicant. The applicant shall use his best efforts to obtain the individual permit. Any interested person or municipality may petition the commissioner to take action under this subdivision.

(4) The commissioner may adopt regulations, in accordance with the provisions of chapter 54, to carry out the purposes of this subsection.

(P.A. 85-334, S. 2, 8; 85-613, S. 147, 154; P.A. 86-403, S. 51, 132; P.A. 87-465, S. 2, 3; 87-531, S. 2, 6; 87-556, S. 1, 2; P.A. 89-386, S. 3, 24; P.A. 90-231, S. 8, 28; P.A. 91-251, S. 1, 3, 4; 91-369, S. 14, 15, 36; P.A. 92-162, S. 6, 25; May Sp. Sess. P.A. 92-11, S. 48, 70; P.A. 93-428, S. 14, 39; P.A. 94-205, S. 3; P.A. 95-99, S. 1, 5; P.A. 97-124, S. 1, 16; 97-300, S. 2, 4; P.A. 00-23, S. 1, 2; May Sp. Sess. P.A. 04-2, S. 50; P.A. 06-76, S. 24.)

History: P.A. 85-613 amended Subsec. (b) to replace "for which a permit to construct is required" with "without a permit to construct"; P.A. 86-403 made several technical changes and added Subsec. (h) concerning the denial of permits to violators of state or federal environmental laws; P.A. 87-465 amended Subsec. (a) to require the commissioner until July 1, 1989, to make a written determination of the need for a solid waste land disposal facility on former railroad property and amended Subsec. (h) to extend provisions re conviction of violations to agent responsible for management practices and to require consideration of applicants' and agents' compliance with environmental laws; P.A. 87-531 amended Subsec. (a) to require the commissioner to consider the character of the neighborhood in granting or denying permits, amended Subsec. (e) to require a public hearing on applications to construct solid waste land disposal facilities and amended Subsec. (h) to extend provisions re conviction of violation of environmental laws to applications for the transfer of a permit; P.A. 87-556 added Subsec. (i) requiring the commissioner to make a written determination that a facility is necessary to meet state solid waste disposal needs; P.A. 89-386 amended Subsec. (a) to require that resources recovery facilities have a plan for disposal or recycling of ash residue and deleted Subsec. (i) concerning written determination of need by the commissioner; P.A. 90-231 amended Subsec. (a) to establish a schedule of application fees, provided that on and after July 1, 1995, the fees shall be prescribed by regulations, added Subsecs. (i) to (p), inclusive, re payment of annual fees by resources recovery facilities, transfer stations, volume reduction plants, biomedical waste treatment facilities, wood-burning facilities, solid waste disposal areas, solid waste disposal areas accepting bulky waste and generators of biomedical waste, respectively, and added Subsec. (q) re regulations establishing fees on and after July 1, 1995; P.A. 91-251 amended Subsec. (e) to replace reference to "solid waste land disposal facility" with reference to "new solid waste disposal area", and to provide for commencement of public hearings conducted under this section in the affected municipality or a location in close proximity thereto and added Subsec. (r) concerning general permits for certain categories of activities; P.A. 91-369 amended Subsec. (a) to restate commissioner's authority to adopt regulations setting the fees required by this section and amended Subsec. (p) to modify the amount of biomedical waste generated annually which requires reporting under this section; P.A. 92-162 amended Subsec. (e) to delete requirement that hearing be held on applications under this section for landfill expansions; May Sp. Sess. P.A. 92-11 amended Subsec. (a) to require the commissioner, in making a decision to grant or deny a permit to construct an ash residue disposal area, to consider any provision for a double liner, leachate collection or detection system and the cost of transportation and disposal of ash residue at the site under consideration; P.A. 93-428 amended Subsec. (e) to delete a requirement for hearings on permits to operate for facilities which have had a hearing on a permit to construct on or after July 1, 1993, effective July 1, 1993; P.A. 94-205 amended Subsec. (c) to include provision re ash landfill in Hartford and deleted former Subsec. (h) re review of permit applicant's compliance history, relettering remaining Subsecs. as necessary; P.A. 95-99 amended Subsec. (p) to delay until July 1, 1996, a provision authorizing fees to be set by regulation and to require an evaluation of the costs of rendering decisions on permit applications and an evaluation of annual fees, effective July 1, 1995; P.A. 97-124 deleted provisions in Subsec. (a) and former Subsecs. (h) to (o), inclusive, re amounts of fees for permits under this section and redesignated Subsecs. (p) and (q) as Subsecs. (h) and (i), effective June 6, 1997; P.A. 97-300 amended Subsec. (a) to prohibit establishment or construction of a new volume reduction plant or transfer station within one-quarter mile of a child day care center in a municipality with a population greater than one hundred thousand persons, effective July 8, 1997; P.A. 00-23 amended Subsec. (d) by designating existing language as Subdiv. (1), making conforming changes therein, and inserting new Subdiv. (2) re changes to mitigate, correct or abate odors from solid waste facility owned or operated by the Connecticut Resources Recovery Authority, effective April 25, 2000; May Sp. Sess. P.A. 04-2 amended Subsec. (a) to require commissioner to consider whether new transfer station will result in disproportionately high adverse human health or environmental effects and to make a technical change; P.A. 06-76 amended Subsec. (a) to delete provision re prohibition on permits to establish or construct new volume reduction plant or transfer station within one-quarter mile of certain child day care centers and to delete provision re modification or renewal of permit of existing volume reduction plant or transfer station without regard to location, replaced former provisions of Subsec. (b) re permit approval by commissioner and safeguarding localities' right to

zone for solid waste disposal with new permitting requirements for establishing, constructing or operating a solid waste facility, and amended said Subsec. to replace "commissioner" with "applicant" and make technical changes, replaced former provisions of Subsec. (c) with new provisions re submission of closure plan and remediation in accordance with such plan, and amended Subsec. (d)(1) to rephrase requirement for modified permit for an altered solid waste facility, to redefine "alter" and to add provision re commissioner's approval of modification of closure plan for a closed permitted solid waste disposal area.

See Sec. 22a-6m re review of permit applicant's compliance history.

See Sec. 22a-6n re notice of commissioner's determination regarding application under this section.

See Sec. 22a-6z re regulations implementing Subtitle C of the Resource Conservation and Recovery Act of 1976.

See Sec. 22a-27i re exemption of municipality for one year.

See Sec. 22a-208*l* re wood-burning facilities.

Cited. 215 C. 82. Cited. 218 C. 821. Cited. 226 C. 205. Cited. 227 C. 175. P.A. 89-386 cited. Id. Cited. 233 C. 486. Cited. 234 C. 312. Whether statute accords with due process and equal protection was not properly reserved. 247 C. 751.

Cited. 17 CA 17; judgment reversed, see 21 C. 570. As creature of the state, a town or city may not challenge an agency's duly enacted regulations on constitutional grounds. 62 CA 816.

Subsec. (a):

1997 amendment prohibiting establishment or construction of new plant or station within 1/4 mile of day care center operating as of July 8, 1997, in municipality with population greater than 100,000 persons violates right to equal protection guaranteed by Connecticut constitution, Article first, secs. 1 and 20 by creating classifications unrelated to legitimate state interest. 257 C. 429.

Subsec. (b):

Cited. 218 C. 580. Cited. 225 C. 731. Cited. 234 C. 221.

Overrode local zoning only as to property owned by Connecticut resources recovery authority. Judgment of appellate court in 17 CA 17 reversed, see 212 C. 570.

Subsec. (c):

Cited. 218 C. 580.

Subsec. (d):

Cited. 234 C. 221.

Sec. 22a-208d. Written determination of need for resources recovery facility, composting facility or ash residue disposal area. (a) On and after July 1, 1989, the Commissioner of Environmental Protection shall not issue a permit under section 22a-208a to construct or expand a resources recovery facility or a mixed municipal solid waste composting facility where any mixed municipal solid waste will be processed or a disposal area for ash residue generated by resources recovery facilities or mixed municipal solid waste unless said commissioner makes a written determination that such facility or disposal area is necessary to meet the solid waste disposal needs of the state and will not result in

substantial excess capacity of resources recovery facilities, disposal areas or mixed municipal solid waste composting facilities.

(b) The commissioner shall publish, at the expense of the applicant, notice of the preliminary determination of need for the proposed facility or disposal area in a newspaper having a substantial circulation in the area affected. Publication shall be within sixty days of determination by the commissioner that the application is complete. Any person may submit written comments on the preliminary determination of need in the same manner as provided by the commissioner for the submission of comments on the application. The commissioner shall not make a final determination of need for the facility or disposal area unless a permit is issued. A preliminary determination of need shall be void if a permit is not issued. As used in this section, "preliminary determination of need" means a statement by the commissioner of the need for a resources recovery facility, a mixed municipal solid waste composting facility or disposal area during the pendency of an application to construct such facility or area.

(c) (1) The applicant for a permit to construct or expand a resources recovery facility or a mixed municipal solid waste composting facility requiring a determination of need under subsection (a) shall provide such information as the commissioner deems necessary, including but not limited to:

(A) The design capacity of the proposed facility;

(B) The planned operating rate and throughput for the facility;

(C) An explanation of any difference between the information provided under subdivisions (A) and (B);

(D) The estimated amount of the following: (i) The mixed municipal solid waste generated by and received from each municipality and other customers that will send waste to the facility, in tons per day evidenced by contracts or letters of intent, (ii) the mixed municipal solid waste to be recycled pursuant to regulations adopted by the commissioner under section 22a-241b and (iii) change in the amount of mixed municipal solid waste generated because of population growth, waste generation, source reduction and industrial and commercial development over the design life of the facility. Information submitted under this subdivision shall include the methodology used to determine the estimates;

(E) A contingency plan for use of facility capacity if throughput declines or increases by at least ten per cent from the throughput estimated in the application;

(F) An analysis of reasonable levels of reserve capacity for seasonal peaks and unexpected facility outages;

(G) The capability of the applicant to complete the project;

(H) The technical feasibility of the proposed facility; and

(I) A demonstration that the throughput capacity of the proposed facility, when combined with the throughput capacity of all other resources recovery facilities with permits to construct under the provisions of section 22a-208a, existing resources recovery facilities with construction permits to expand and mixed municipal solid waste composting facilities, shall not exceed the total throughput capacity of resources recovery facilities and mixed municipal solid waste composting facilities needed to process waste generated in the state as set forth in the solid waste management plan adopted pursuant to section 22a-228.

(2) In making the determination required under this section, the commissioner shall consider the information submitted under subdivision (1) of this subsection, the current and anticipated availability of throughput capacity for mixed municipal solid waste at resources recovery facilities, mixed municipal solid waste composting facilities, land disposal areas, recycling facilities and other facilities that process or dispose of mixed municipal solid waste that have obtained all necessary permits to construct and any other information the commissioner deems pertinent and shall insure that no waste is accounted for more than once as a result of transfer from one vehicle or facility to another or for any other reason.

(d) (1) The applicant for a permit to construct a disposal area for ash residue generated by resources recovery facilities or mixed municipal solid wastes which requires a certificate of need under subsection (a) of this section shall submit such information as the commissioner deems necessary, including but not limited to, (A) the name of the resources recovery facilities or municipalities to be served by the disposal area; (B) the transportation system needed to serve the disposal area; (C) the available capacity of other disposal areas for ash residue or mixed municipal solid waste in the state that have obtained all necessary permits to construct; and (D) the design capacity of the disposal area.

(2) In making the determination required under this subsection, the commissioner shall consider the information submitted pursuant to subdivision (1) of this subsection and any other information the commissioner deems pertinent.

(e) The provisions of this section shall apply to any application for a permit under section 22a-208a for a resources recovery facility, for a disposal area for ash residue generated by resources recovery facilities, for a mixed municipal solid waste composting facility or for a disposal area for mixed municipal solid wastes which is pending on or submitted after July 1, 1989.

(f) This section shall not apply to an application for a permit or permit modifications of any resources recovery facility operating as of June 30, 1993, provided there is no expansion after that date of the facility's boilers or waste handling and processing equipment. Any such facility shall comply with all applicable environmental laws and regulations. Nothing in this subsection and no action taken by the commissioner pursuant hereto shall validate or invalidate any permit or determination of need issued or approved prior to June 30, 1993, for any resources recovery facility not operating as of that date, or otherwise affect any action of the commissioner, proceedings or judicial review relating thereto, pending on or commenced after that date.

(P.A. 89-386, S. 4, 24; P.A. 91-293, S. 3, 9; P.A. 92-162, S. 21, 25; May Sp. Sess. P.A. 92-11, S. 47, 70; P.A. 93-372, S. 3, 4.)

History: P.A. 91-293 applied provisions of section to mixed municipal waste composting facilities; P.A. 92-162 amended Subsec. (d) to add leachate control systems and cost of transportation of ash residue as considerations the commissioner must make under this section before making the determination of need; May Sp. Sess. 92-11 deleted provisions enacted by public act 92-162 except for substitution of "section" for "subsection" in Subdiv. (2); P.A. 93-372 added Subsec. (f) exempting certain facilities from the provisions of the section requiring a certificate of need to modify the facility, effective June 30, 1993; (Revisor's note: In 1999 the word "the" preceding the reference to June 30, 1993, in Subsec. (f) was deleted editorially by the Revisors to correct a clerical error).

See Sec. 22a-207a for definition of "composting", "mixed municipal solid waste" and "mixed municipal solid waste composting facility" applicable to this section.

Cited. 233 C. 486. Cited. 234 C. 312.

Sec. 22a-208i. Composting of leaves. Regulations. Certain recycling facilities exempt from requirement of permit for solid waste facility. (a) Notwithstanding any provision of this chapter, or chapter 446e or 446k, any facility where the sole business or activity conducted is composting of leaves shall be exempt from the requirements of sections 22a-208a and 22a-430. The commissioner may adopt regulations in accordance with the provisions of chapter 54 concerning facilities for the composting of leaves. Such regulations shall, without limitation, provide for the design, operation and monitoring of and reporting from such facilities.

(b) The commissioner may, by regulations adopted in accordance with chapter 54, exempt categories or classes of recycling facilities from the requirements of said section 22a-208a or 22a-430 provided such exemption would not adversely affect the environment and would advance the objectives of the solid waste management plan adopted and revised under sections 22a-228 and 22a-241a and the municipal solid waste recycling plan adopted under section 22a-241. No person or municipality may operate or continue to operate a recycling facility without permits issued under said section 22a-208a or 22a-430 unless such person or municipality first files with the commissioner a written request for exemption under the regulations adopted under this section.

(c) The provisions of subsection (a) exempting facilities composting leaves and the provisions of subsection (b) exempting recycling facilities from the requirements of section 22a-208a shall not be construed to relieve such facilities from the obligation to comply with any other provision of this chapter or chapter 446e, including but not limited to, operational requirements and other applicable requirements of regulations adopted under section 22a-209.

(P.A. 89-386, S. 13, 24.)

Sec. 22a-208q. Composting product. Presegregation. Regulations. (a) The Commissioner of Environmental Protection shall require as a condition for granting a permit under section 22a-208a to construct or expand a mixed municipal solid waste composting facility, that items containing hazardous household chemicals or other items deemed by the commissioner to be potential contaminants of the composting product, are presegregated or separated at the source of their generation and are disposed of separately as part of a household hazardous waste collection and disposal program approved by the commissioner.

(b) The Commissioner of Environmental Protection may adopt regulations, in accordance with the provisions of chapter 54 and in consultation with the Connecticut Agricultural Experiment Station and the Department of Public Health, to provide specifications for the production, quality and use of compost made from mixed municipal solid waste. Such regulations shall promote composting processes which provide a clean, high-quality, nontoxic and marketable end product and shall provide for the protection of land and water resources from contaminants and the prevention of adverse environmental and public health effects resulting from the composting operations or product application. Such regulations shall provide for maximum allowable levels of toxic contaminants and other contaminants in the composting product and shall include testing criteria for such contaminants and establish at least two classes of compost made from mixed municipal solid waste: (1) Class I compost made only from compostable organic materials such as food waste, grass clippings and yard waste, which materials have been separated from municipal solid waste at the source of generation, and (2) class II compost made from mixed municipal solid waste which contains compostable organic materials which have not been separated at the source of generation. The maximum allowable contaminant levels established for class I compost shall be at such a level as will allow unrestricted use of the compost. Such regulations shall not allow class II compost to be used for agricultural or horticultural purposes, unless the class II compost meets the maximum allowable contaminant levels established for class I compost, as determined by

testing criteria established pursuant to this section.

(P.A. 91-293, S. 4, 9; P.A. 93-381, S. 9, 39; P.A. 95-99, S. 2, 5; 95-257, S. 12, 21, 58.)

History: P.A. 93-381 replaced department of health services with department of public health and addiction services, effective July 1, 1993; P.A. 95-99 amended Subsec. (b) to make adoption of regulations discretionary instead of mandatory, effective July 1, 1995; P.A. 95-257 replaced Commissioner and Department of Public Health and Addiction Services with Commissioner and Department of Public Health, effective July 1, 1995.

See Sec. 22a-207a for definition of "composting", "mixed municipal solid waste" and "mixed municipal solid waste composting facility" applicable to this section.

Sec. 22a-208r. Model demonstration composting facility. Section 22a-208r is repealed, effective July 1, 1995.

(P.A. 91-293, S. 5, 9; P.A. 95-99, S. 4, 5.)

Sec. 22a-208v. Grass clippings prohibited from disposal at resources recovery facilities or solid waste facilities. (a) On and after October 1, 1995, the Commissioner of Environmental Protection, and on and after October 1, 1997, the Connecticut Resources Recovery Authority, shall provide for a program of public information to promote the recycling of grass clippings by composting at the property where the grass clippings are generated, by allowing the grass clippings to decompose in place or by composting grass clippings at a municipal or commercial composting facility.

(b) The commissioner shall authorize pilot projects, according to standards or guidelines he deems appropriate, under which municipalities may provide for the composting of grass clippings. The commissioner may adopt regulations, in accordance with the provisions of chapter 54, to establish composting of grass clippings at the property where such clippings were generated as the preferred method of disposal, or at a commercial composting facility, and to allow municipalities to compost grass clippings.

(c) After October 1, 1998, or six months after the commissioner adopts such regulations, whichever is sooner, no resources recovery facility or solid waste facility permitted under this chapter, other than a municipal or commercial composting facility, may accept significant quantities of grass clippings for disposal.

(P.A. 93-423, S. 2; P.A. 95-324, S. 6; P.A. 97-102, S. 1; P.A. 98-99, S. 3.)

History: P.A. 95-324 amended Subsec. (a) to delete a prohibition on disposal of grass clippings at solid waste facilities after October 1, 1995, and to include disposal at a municipal or commercial composting facility as a disposal option, added new Subsec. (b) re pilot projects and regulations, and added Subsec. (c) re a prohibition on disposal of grass clippings at solid waste facilities after October 1, 1997, or within six months of adoption of regulations; P.A. 97-102 amended Subsec. (a) to require the Connecticut Resources Recovery Authority to provide for a program of public information re recycling of grass clippings and amended Subsec. (c) to extend the date on which grass clippings are prohibited from certain solid waste facilities; P.A. 98-99 amended Subsec. (c) to prohibit disposal of significant quantities of grass clippings at certain facilities.

Sec. 22a-228. State-wide solid waste management plan. Regulations. Source reduction component. (a) The Commissioner of Environmental Protection shall adopt regulations in accordance with the provisions of chapter 54 establishing procedures for adopting and amending a state-wide solid waste management plan and for granting temporary variances from the provisions of the plan. Such

regulations shall require notice to each affected municipality by certified mail, return receipt requested, and an opportunity for public comment, including regional hearings, and shall assure full consideration of and response to any comments received by the commissioner. The state-wide solid waste management plan shall be adopted and amended in accordance with such regulations, but shall not be deemed to be a regulation for purposes of chapter 54.

(b) On or after January 1, 1987, the Commissioner of Environmental Protection shall adopt a state-wide solid waste management plan which shall incorporate each municipal solid waste management plan approved pursuant to section 22a-227. The plan shall establish specific goals for source reduction, bulky waste recycling and composting. The plan shall establish the following order of priority for managing solid waste: Source reduction; recycling; composting of yard waste or vegetable matter; bulky waste recycling; resource recovery or waste-to-energy plants; incineration and landfilling.

(c) The commissioner shall amend said plan to include an assessment of the amount of landfill capacity needed in the state for landfills for residue from resources recovery facilities, ash from municipal incinerators and for bulky waste. Such assessment shall include (1) a projection of the annual capacity needed for the twenty-year period commencing on July 1, 1989, and (2) a minimum and maximum number of landfills in simultaneous operation required to dispose of such residue, ash or waste. Such amendment shall be available to the public on or before January 1, 1989.

(d) On or before January 1, 1990, the Commissioner of Environmental Protection shall revise the state-wide solid waste management plan to include a source reduction component that outlines specific strategies to reduce the solid waste generated in this state by an amount not less than the amount required to maintain until the year 2010 the annual per capita solid waste generation rate at the rate estimated by the commissioner in 1988. Such strategies shall include measures to reduce waste from packaging materials and disposable products.

(P.A. 85-436, S. 2, 6; P.A. 88-352, S. 7, 8; P.A. 89-130, S. 1; 89-385, S. 1; P.A. 91-293, S. 2, 9; P.A. 96-163, S. 8.)

History: P.A. 88-352 amended Subsec. (b) by adding provision regarding an amendment to the plan assessing landfill capacity necessary for residue from resources recovery facilities, ash from municipal incinerators and for bulky waste; P.A. 89-130 amended Subsec. (b) to require the plan to establish specific goals for source reduction and inserted Subsec. (c) indicator; P.A. 89-385 added new Subsec. re revision of plan to include source reduction component; P.A. 91-293 in Subsec. (b) rephrased the language concerning the order of priority for managing solid waste; P.A. 96-163 amended Subsec. (b) to delete composting of mixed municipal solid waste from the order of priority for managing solid waste.

See Sec. 22a-207a for definition of "composting", "mixed municipal solid waste" and "mixed municipal solid waste composting facility" applicable to subsection (b) of this section.

See Sec. 22a-241a re recycling strategy.

Connecticut

The Regulations of Connecticut State Agencies are amended by adding Section 22a-208i(a)-1 as follows:

(NEW) Section 22a-208i(a)-1. Composting of Leaves

(a) Applicability

(1) This section applies to any person who owns or operates a leaf composting facility.

(2) No person shall be exempt by virtue of compliance with this section from applicable local, state and federal laws.

(b) Definitions

As used in this section:

(1) "Compost pad" means a cleared, graded surface within a leaf composting facility upon which windrows are placed for composting.

(2) "Existing leaf composting facility" means a leaf composting facility at which leaf composting took place before the effective date of this regulation.

(3) "Home composting" means the accelerated aerobic biodegradation and stabilization of vegetative organic solid waste generated by a homeowner or tenant of a single or multi-family residential unit when composting occurs at such residence.

(4) "Leaf" or "leaves" means the foliage of trees.

(5) "Leaf composting" or "composting of leaves" means the accelerated aerobic biodegradation and stabilization of leaves under controlled conditions.

(6) "Leaf composting facility" means land, including structures and appurtenances thereon, other than home composting areas, where leaf composting takes place.

(7) "Leaf compost" means the product of leaf composting.

(8) "New leaf composting facility" means a leaf composting facility at which leaf composting did not take place prior to the effective date of this section.

(9) "Operator" means the person with ultimate responsibility for managing a leaf composting facility.

(10) "Owner" means a person that owns a leaf composting facility.

(11) "Sheet leaf composting" means the application of leaves to land for use as a soil amendment or mulch.

(12) "Surface water" means "surface water" as defined in section 22a-430-3(a) of the Regulations of Connecticut State Agencies.

(13) "Windrow" means an elongated pile of leaves formed for the purpose of composting.

(14) The definitions of the following terms shall be the same as the definitions in section 22a-2 of the Connecticut General Statutes: "Commissioner", "Department", "person".

(15) The definition of the following term shall be the same as the definition in section 12-412(63) of the Connecticut General Statutes: "agricultural production".

(c) Registration

(1) (A) Before commencing leaf composting, an owner or operator of a new leaf composting facility shall register such facility with the Commissioner and obtain from the Commissioner a notice that such registration is complete. An owner or operator of an existing leaf composting facility shall register such facility with the Commissioner within ninety days after the effective date of this section.

(B) Notwithstanding the provisions of subparagraph (A) of this subdivision, an owner or operator of a leaf composting facility shall be considered in compliance with this subsection if, by the effective date of this regulation, (i) such owner or operator has submitted to the Commissioner the information set out in subparagraph (A) through (J) of subdivision (2) of this section, and such owner or operator does not receive written notice from the Commissioner that the information so submitted is incomplete, or (ii) the Commissioner has issued to such owner or operator a permit pursuant to Section 22a-208a of the General Statutes and such permit was in effect on the effective date of this section. An owner or operator to whom or to which the Commissioner has issued such a permit shall register such facility with the Commissioner within ninety days after the expiration of the permit.

(2) A registration for a leaf composting facility shall include the following information with respect to such facility:

(A) Name, business address, and business telephone number of the facility's owner and the operator and of the owner of the land on which the facility is located;

(B) Location of the facility;

(C) Acreage of the property on which the facility is located;

(D) Volume of leaves composted or expected to be composted annually;

(E) acreage of area used or to be used for a compost pad, leaf processing activities, and storage of leaf compost;

(F) Individual to be the primary contact with the Department;

(G) Name, business address, and business telephone number of any engineer or other consultant employed or retained to design and/or oversee construction of and/or operate the facility;

(H) A detailed site plan and supporting maps showing, but not necessarily limited to: the boundaries of the property at which the facility is located; the existing and proposed contours and contour intervals of the property at which the facility is located and of the properties adjacent to the property at which the facility is located; all occupied buildings within 250 feet of the perimeter of the compost pad; all drinking water supply wells, monitor wells, reservoirs, and sources of water for irrigation or industrial purposes within 1000 feet of the perimeter of the compost pad; archeological or historical landmarks, wetlands, watercourses, and publicly or privately owned land conservation areas on the property at which the facility is located and within 1000 feet of the boundaries of said property; soil series description and delineation as specified by the United States Department of Agriculture Soil Conservation Service County Soil Survey of all soils on the property at which the facility is located and within 1000 feet of the boundaries of said property; any buffers, and the nature of such buffers, between the facility and adjacent properties; any means, and the nature of such means, utilized to visually screen the facility from its surroundings; all paved and unpaved access roads to the facility; all paved and unpaved roads on the property at which the facility is located; all fencing and gates on the said property; depiction of the composting operations; all structures related to the facility; source of water for the facility; any means for control of erosion, sedimentation, and stormwater; location, depth, and elevation of any soil borings, test pits, or monitor wells on the said property; elevation of seasonal high groundwater table on the said property; and direction of groundwater flow on the said property.

(I) An operation and maintenance plan setting forth, but not necessarily limited to, a description of any agreements affecting the control, use or operation of the facility; procedures for collection and delivery of leaves to the facility; procedures and processes for leaf composting; methods and procedures for fire prevention and fire control; a design for erosion, sedimentation and stormwater controls; end uses or markets for leaf compost generated at the facility; and provisions for bi-weekly record-keeping of weather conditions, wind direction, ambient air temperature, odor, dust, condition of compost pad, windrow monitoring, and corrective actions needed and taken.

(J) Such additional information relevant to the facility as the Commissioner deems appropriate.

(3) A registration, including any attachments thereto, shall be certified by the registrant and by the individual or individuals responsible for actually preparing the registration, each of whom shall state in writing:

> "I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that a false statement in the submitted information may be punishable as a criminal offense, in accordance with section 22a-6 of the General Statutes, pursuant to section 53a-157 of the General Statutes, and in accordance with any other applicable statute."

The registration and one copy thereof shall be delivered personally or by mail and, unless the Commissioner requires differently, shall be directed to the Department's Bureau of Waste Management Planning and Standards Division.

(4) Each owner or operator of a registered leaf composting facility shall re-register such facility with the Commissioner, in accordance with provisions of subdivisions (3) and (4) of this subsection, if any of the following occurs:

(A) The annual volume of leaves to be composted at the facility increases by twenty per cent of the annual volume indicated in the current registration;

(B) The design of the facility, or procedures or processes for leaf composting, are modified;

(C) There is a change in the identity of the facility's owner or operator.

(5) The Commissioner may revoke or suspend a registration in accordance with applicable law.

(d) Siting

(1) No leaf composting facility shall be operated at any location unless at such location:

(A) There are at least 100 feet between the staging, processing, curing, and storage areas of the facility and any surface water;

(B) There are at least 100 feet between the staging, processing, curing, and storage areas of the facility and the boundaries of the property at which the facility is located;

(C) There are at least 250 feet between the staging, processing, curing, and storage areas of the facility and any occupied building other than an owner occupied building on the property at which the facility is located;

(D) There are at least five feet between the ground surface of the property at which the facility is located and the seasonal high groundwater table;

(E) There are at least five feet between the ground surface of the property at which the facility is located and the bedrock;

(F) There are at least 250 feet between the staging, processing, curing, and storage areas of the facility and any drinking water supply well;

(G) Leaf composting facilities which are located on top of solid waste disposal areas closed in accordance with Sections 22a-209-1 through 13 of the Regulations of Connecticut State Agencies and Title 40 Code of Federal Regulations Part 258.60 shall be conducted on a pad to prevent disruption of the landfill cap and underlying waste. The pad shall be constructed of well compacted, well drained soil. It shall be no less than 2 feet thick and sloped at 2-5% to promote surface drainage. The pad shall be constructed in addition to the minimum 2 feet of final cover soil required at all closed solid waste disposal areas.

(2) Notwithstanding the provisions of subdivision (1) of this subsection, a leaf composting facility may be operated at a location which does not meet the requirements of such

subdivision if the owner or operator demonstrates in writing to the Commissioner's satisfaction, and the Commissioner finds in writing, that operation of the facility at such location will not adversely affect public health, safety, welfare, or the environment.

(e) Operation

Each owner or operator of a leaf composting facility shall assure that:

(1) The facility is operated in accordance with the information provided in the current registration submitted under this section.

(2) If the facility is located on a solid waste disposal area, the facility is operated so as not to interfere with operations of such area or to disturb the cover of such solid waste disposal area.

(3) The facility is operated so as to prevent adverse impacts to public health, safety, welfare, and the environment.

(4) All composting takes place on a compost pad having a slope of between 2% and 5% and graded to minimize ponding.

(5) Leaves in plastic bags are de-bagged within two (2) weeks after arrival at the facility and empty plastic bags are promptly removed from the facility and lawfully disposed.

(6) Leaves are stockpiled at the facility for no longer than two weeks before the leaves are watered, processed and formed into actively composting windrows.

(7) Windrows are constructed on the compost pad perpendicular to the contours of the ground surface.

(8) Windrow layout allows access for heavy equipment.

(9) Windrow height and width is such that the leaves may be easily and thoroughly mixed by the windrow turning equipment used. In no case shall windrows exceed twelve (12) feet in height and twenty (20) feet in width at their base unless a specialized windrow turning machine is used to mix them and manufacturer specifications recommend specific size windrows.

(10) Windrows are turned as often as necessary, and at least once per month, to maintain aerobic composting conditions, prevent foul odors, and produce a compost product.

(11) Internal temperature of the windrows is measured and recorded at least once every 14 days at 50-foot intervals along the windrows. The thermometer shall be inserted into the center of the windrow when internal temperature is being measured.

(12) Adequate measures are implemented to minimize dust and fungal spore migration during operation of the facility, including during windrow turning.

(13) The following parameters are recorded at least once every two weeks and during windrow turning: weather conditions, wind direction, ambient air temperature, presence of odor or dust, compost pad condition, windrow moisture, corrective actions needed, and corrective actions taken.

(14) All appropriate sedimentation and erosion control measures are implemented and designed in accordance with the Connecticut Guidelines for Soil Erosion and Sediment Control, as amended, published by the Soil and Water Conservation Council established pursuant to section 22a-328 of the Connecticut General Statutes.

(15) All drainage ditches, evaporation ponds, sedimentation ponds and swales are a sufficient distance from the windrows to prevent absorption of water by leaves or leaf compost.

(16) All interceptor berms, ditches and swales are installed upgradient of the compost pad when the compost pad is located down gradient of a slope, and surface drainage is diverted away from the compost pad.

(17) Drainage control measures are implemented to prevent run-off from the compost pad from entering surface water.

(18) Access to the facility is maintained so as to permit orderly entrance and egress at all times, including during periods of peak usage and inclement weather.

(19) Security measures are adequate to prevent unauthorized dumping and vandalism.

(20) The facility be maintained in such a manner as to prevent the creation of litter and the harboring, feeding or breeding of vectors.

(f) Reporting

The owner or operator of a leaf composting facility shall comply with the reporting requirements for recycling facilities pursuant to Section 22a-208e(c) of the Connecticut General Statutes.

(g) Sheet leaf composting

(1) Each person that practices sheet leaf composting is exempt from the requirements of subsections (c), (d), and (e) of this section, provided that such person:

(A) Has been issued an Agricultural Sales Tax Exemption Permit pursuant to chapter 219 of the Connecticut General Statutes.

(B) Complies with the reporting requirements for recycling facilities pursuant to section 22a-208e(c) of the Connecticut General Statutes.

(C) Notifies the Commissioner on a form prescribed by the Commissioner within 30 days before accepting leaves for sheet leaf composting.

(2) Any person that practices sheet leaf composting on land which he leases to another person for purposes of agricultural production shall be exempt from the requirements of subsections (c), (d), and (e) of this section if such other person satisfies the criteria of subparagraphs (A), (B), and (C) of subdivision (1) of this subsection.

(3) Each person that practices sheet leaf composting shall assure that:

(A) No material other than leaves is used for sheet leaf composting.

(B) Sheet leaf composting is conducted only at land actively devoted to agricultural production.

(C) Leaves to be used for sheet leaf composting are delivered to the subject land unbagged.

(D) Prior to application of leaves to land, any non-leaf material intermixed with the leaves is removed and properly disposed.

(E) Leaves to be utilized for sheet leaf composting are applied to land within fourteen (14) days of delivery and are spread in a layer no higher than six inches.

(F) No land receives, as a result of sheet leaf composting, more than six inches of leaves within any 12 months.

(G) All leaves applied to land are incorporated into the soil no later than the tillage season following the time the leaves were applied, unless the leaves are intended as a ground mulch.

Statement of purpose:

To require leaf composting facilities to register with the department of environmental protection and to regulate the design and operation of leaf composting facilities.

Effective Date: This regulation became effective on February 16, 1994

Title 7 DNREC
1300 Waste Management Section

1300 Waste Management Section

Authenticated PDF Version

1301 Regulations Governing Solid Waste

1.0 Declaration Of Intent

The Delaware Department of Natural Resources and Environmental Control finds and declares that improper solid waste handling and disposal practices may result in environmental damage, including substantial degradation of the surface and ground water and waste of valuable land and other resources, and may constitute a continuing hazard to the health and welfare of the people of the State. The Department further finds that the utilization of solid waste handling and disposal facilities which are properly located, designed, operated, and monitored will minimize environmental damage and protect public health and welfare.

It is the intent of the Department to require that solid waste handling and disposal be conducted in a manner and under conditions which will eliminate the dangerous and deleterious effects of improper solid waste handling and disposal upon the environment and upon human health, safety, and welfare.

The purposes of these regulations are:

1. To encourage, in all appropriate ways, recycling, reuse, and reclamation processes, and

2. To implement the provisions of 7 **Del.C.** Ch. 60, which directs the Department to put into effect a program for improved solid waste storage, collection, transportation, processing, transfer, and disposal by providing that such activities may henceforth be conducted only in an environmentally acceptable manner pursuant to a permit obtained from the Department.

2.0 Scope and Applicability

2.1 Authority

2.1.1 These regulations are enacted pursuant to 7 **Del.C.** Ch. 60.

2.1.2 These regulations shall be known as "Regulations Governing Solid Waste" and shall repeal the "Delaware Solid Waste Disposal Regulation".

2.2 Applicability

2.2.1 These regulations apply to any person using land or allowing the use of land for the purposes of storage, collection, processing, transfer, or disposal of solid waste; and to any person transporting solid waste in or through the State of Delaware. The following shall be subject to the provisions of these regulations:

Delaware

2.2.1.1 Sanitary landfills

2.2.1.2 Industrial landfills

2.2.1.3 Resource recovery facilities

2.2.1.4 Transfer stations

2.2.1.5 Special wastes handling

2.2.1.6 Transportation of solid waste

2.2.1.7 Storage of solid waste

2.2.2 These regulations do not apply to those agricultural wastes that are subject to regulations promulgated by the Division of Water Resources.

2.2.3 For the purposes of these regulations, all wastes defined herein and that are subject to regulations promulgated by the Division of Water Resources shall not be regulated as solid wastes.

2.2.4 These regulations do not apply to any waste which meets the criteria of hazardous waste as described in the Delaware Regulations Governing Hazardous Waste.

2.3 Exemptions

The following activities are exempted from these regulations:

2.3.1 Disposal or land application on a farm of the agricultural wastes that are generated on the farm or result from the operation of the farm. The disposal or land application must be conducted in a manner that is in compliance with all federal, state, and local regulatory requirements and that does not threaten human health or the environment.

2.3.2 Composting, on a private property, the leaves, grass clippings, and other vegetation originating on the property.

2.3.3 Disposal of clean fill.

2.3.4 Creation of brush piles on the property on which the material was generated.

2.3.5 The use of vegetative matter and untreated ground wood products to construct berms on the property on which the materials were generated. (Notification must be made to the Department prior to commencing this activity.)

2.4 Compliance

2.4.1 Existing facilities

All existing facilities must comply with the provisions of these regulations with the following exceptions:

2.4.1.1 Closed facilities or closed portions of facilities will not be required to disturb or replace their cap or cover system for the purpose of coming into compliance with these regulations.

2.4.1.2 Facilities currently operating under a permit which does not require a liner and/or a leachate detection system will not be required to install a liner or leachate detection system in closed or currently active areas for the purpose of coming into compliance with these regulations.

2.4.2 New facilities and expansions of existing facilities

All new facilities and all expansions of existing facilities shall comply with the provisions of these regulations.

2.5 Composting And Recycling Approvals

2.5.1 Composting Approvals

Other than individual household composting, all other

composting operations must obtain written approval from the Department prior to commencing a composting operation. To obtain an approval, a person must submit the following information to the Department:

2.5.1.1 A written plan of operation demonstrating to the Department that the requestor of the approval and the person responsible for operating the composting facility understand and will apply the principles and proper methods of composting. The plan of operation must also demonstrate that the composting facility will be operated in a manner that will not pose a threat to human health and the environment; and

2.5.1.2 A written statement explaining how the applicant intends to use the compost.

2.5.2 Recycling Approvals

Recycling solid waste into specific market applications requires written approval prior to commencing this activity. To obtain an approval, a person must submit the following information to the Department:

2.5.2.1 A written plan of operation describing the types and quantities of materials that will be accepted at the facility, the processing methods and equipment that will be used, and the products that will be produced, and

2.5.2.2 Documentation demonstrating the existence of a market or markets for the product(s).

2.6 Other Applicable Requirements. Nothing in these regulations shall be construed as relieving an owner or operator of a facility from the obligation of complying with any other laws, regulations, orders, or requirements which may be applicable.

3.0 Definitions

The following words, phrases, and terms as used in these regulations have the meanings given below:

"**100 Year Flood**" means a flood that has a one percent or greater chance of recurring in any given year or a flood of a magnitude equaled or exceeded once in 100 years on the average over a significantly long period.

"**Action Leakage Rate**" means the quantity of liquid collected from a leak detection system of a double liner system over a specified period of time which, when exceeded, requires certain actions to be taken as described in the Action Leakage Rate response plan approved by the Department.

"**Active Life**" means the period of operation beginning with the initial receipt of solid waste and ending at the completion of closure activities.

"**Active Portion**" means that portion of a facility that presently has an operating permit issued by the Department of Natural Resources and Environmental Control.

"**Agricultural Waste**" means carcasses of poultry or livestock, crop residue, or animal excrement.

"**Aquifer**" means a geologic formation, group of formations, or part of a formation capable of yielding a significant amount of ground water to wells, springs or surface water.

"**ASTM**" means the American Society for Testing and Materials.

"**Authorized Representative**" means the person responsible for the overall operation of a facility or an operational unit (i.e., part of a facility), e.g., the plant manager, landfill manager, superintendent, or person of equivalent responsibility.

"**Bottom Ash**" means the residue remaining in the bottom of the combustion chamber of an incinerator after the combustion of fuel or waste.

"**Buffer Zone**" means those onsite areas adjacent to the facility property line which shall be left undeveloped during the active life as well as the inactive

life of the facility.

"**Bulky Waste**" means items whose large size or weight precludes or complicates their handling by normal collection, processing, or disposal methods.

"**Cap" or "Capping System**" means the material used to cover the top and sides of a sanitary or industrial landfill when fill operations cease.

"**Cell**" means a discrete engineered area that is designed for the disposal of solid waste and that is a subpart of a landfill.

"**Certification**" means a statement of professional opinion based upon knowledge and belief.

"**CFR**" means the Code of Federal Regulations.

"**Clay**", as a soil separate, means the mineral soil particles less than 0.002 mm in diameter. As a soil textured class, "CLAY" means soil material that is 40% or more clay, less than 45% sand, and less than 40% silt. Clay used as a liner or cap should be classifiable as a CL or CH (Unified Soil Classification System) with a liquid limit between 30 and 60, should place above the A-line on the plasticity chart, and should have a minimum plastic index of 15. A clay liner should have a cation exchange capacity greater than 15 meq/100 grams and be in the neutral pH range.

"**Clean Fill**" means a non-water-soluble, non-decomposable, environmentally inert solid such as rock, soil, gravel, concrete, broken glass, and/or clay or ceramic products.

"**Closed Portion**" means that portion of a facility which an owner or operator has closed in accordance with the approved facility closure plan and all other applicable closure requirements.

"**Closure**" means the cessation of operation of a facility or a portion thereof and the act of securing such a facility so that it will pose no significant threat to human health or the environment.

"**Closure Plan**" means written reports and engineering plans detailing those actions that will be taken by the owner or operator of a facility to effect proper closure of that facility or a portion thereof.

"**Commercial Waste**" means solid waste generated by stores, offices, restaurants, warehouses, and other non-manufacturing, non-processing activities.

"**Compost**" means a product of composting that has been stabilized to a humus-like product, is free of pathogens at an infectious level and of viable plant seeds, that does not attract insects or vectors, can be handled and stored without nuisance, and is beneficial to the growth of plants.

"**Composting**" means the biological decomposition and stabilization of organic material, under conditions that allow development of thermophilic temperatures as a result of biologically produced heat, to produce a final product that is stable, free of pathogens and viable plant seeds, and can be beneficially applied to the land.

"**Composting Facility**" means a facility where organic material is processed using composting technology which may include but is not limited to physical turning, windrowing, in vessel composting, or other mechanical handling of organic material.

"**Confined Aquifer**" means an aquifer containing ground water which is everywhere at a pressure greater than atmospheric pressure and from which water in a well will rise to a level above the top of the aquifer. A confined aquifer is overlain by material of distinctly lower permeability ("confining bed") than the aquifer.

"**Contaminant**" means any substance that enters the environment at a concentration that has the potential to endanger human health or degrade the environment.

"**Controlling Slopes**" means slopes on those areas of a liner that have a direct influence on the maximum leachate head, or slopes that are perpendicular to

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the collection laterals.

"**Daily Cover**" means a layer of compacted earth, or other suitable material as approved by the Department, used to enclose a volume of solid waste each working day.

"**Department**" means The Department of Natural Resources and Environmental Control.

"**Dike**" means an embankment or ridge of either natural or man-made materials used to prevent or to control the movement of solids, liquids, or other materials.

"**Discharge**" means the accidental or intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of a substance into or onto any land, water, or air.

"**Disposal**" means the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste into or upon any land or water.

"**Disposal Facility**" means any facility or portion of a facility at which solid waste is intended to be and/or is intentionally placed into or onto any land and at which solid waste will remain after closure has taken place.

"**Double Liner System**" means a liner system consisting of two liners with a leachate detection and collection system in between.

"**Dry Waste**" (formerly called "Inert Solid Waste") means wastes including, but not limited to, plastics, rubber, lumber, trees, stumps, vegetative matter, asphalt pavement, asphaltic products incidental to construction/demolition debris, or other materials which have reduced potential for environmental degradation and leachate production.

"**Environmental Assessment**" means a detailed and comprehensive description of the condition of all environmental parameters as they exist at and around the site of a proposed action prior to implementation of the proposed action. This description is used as a baseline for assessing the environmental impacts of a proposed action.

"**Environmentally Unsound**" means characterized by any condition, resulting from the methods of operation or design of a facility, which impairs the quality of the environment when compared to the surrounding background environment or any appropriate promulgated federal, state, county or municipal standard.

"**Existing Facility**" means a facility which was in operation or for which construction had commenced on or before the date of enactment of these regulations, provided that the facility was being constructed or operated pursuant to all permits and/or approvals required by the Department at the time of enactment. A facility has commenced construction if either:

(i) an onsite physical construction program has begun and is moving toward completion within a reasonable time; or

(ii) the owner or operator has entered into contractual obligations which cannot be cancelled or modified without substantial loss for physical construction to be completed within a reasonable time.

"**Expansion**" means the process of increasing the areal dimensions, vertical elevations, or slopes beyond the original approved limits of the facility.

"**Facility**" means all contiguous land, and structures, other appurtenances, and improvements on the land, used in resource recovery and/or the treatment, handling, composting, storage, or disposal of solid waste. A facility may consist of several operational units (e.g., one or more landfills, cells, incinerators, compactors, or combinations thereof).

"**Final Cover**" means the material used to cover the top and sides of a landfill cell when fill operations cease.

"**Flood Plain**" means the lowland and relatively flat areas adjoining inland and coastal waters, that are inundated by the 100 YEAR FLOOD.

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"**Fly Ash**" means a powdery residue resulting from the combustion of fuel or waste and captured by air pollution control equipment prior to exiting the smokestack.

"**Free Liquids**" means liquids which readily separate from the solid portion of a waste under ambient temperature and pressure, using any or all of the following tests: EPA Paint Filter Test; EPA Plate Test; EPA Gravity Test.

"**Garbage**" means any putrescible solid and semisolid animal and/or vegetable wastes resulting from the production, handling, preparation, cooking, serving or consumption of food or food materials.

"**Generation**" means the act or process of producing solid waste.

"**Generator**" means the producer or the source of the solid waste.

"**Geomembrane**" means a prefabricated continuous sheet of flexible polymeric or geosynthetic material.

"Gross Vehicle Weight Rating (GVWR)" or gross vehicle weight means the value specified by the manufacturer as the loaded weight of a single vehicle.

"**Ground Water**" means any water naturally found under the surface of the earth.

"**Hazardous Waste**" means a solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating irreversible, illness, or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. Without limitation, included within this definition are those hazardous wastes described in Sections 261.31, 261.32, and 261.33 of the Delaware Regulations Governing Hazardous Waste.

"**Household Waste**" means any solid waste derived from households (including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds, and day-use recreation areas).

"**Hydraulic Conductivity**" means the capacity to transmit water. It is expressed as the volume of water that will move in a unit of time under a unit hydraulic gradient through a unit area.

"**Impermeable**" means having a hydraulic conductivity equal to or less than 1×10^{7} cm/sec as determined by field and laboratory permeability tests made according to standard test methods which may be correlated with soil densification as determined by compaction test.

"**Industrial Landfill**" means a land site at which industrial waste is deposited on or into the land as fill for the purpose of permanent disposal, except that it will not include any facility that has been approved for the disposal of hazardous waste under the Delaware Regulations Governing Hazardous Waste.

"**Industrial Waste**" means any water-borne liquid, gaseous, solid, or other waste substance or a combination thereof resulting from any process of industry, manufacturing, trade or business, or from the development of any agricultural or natural resource.

"**Infectious Waste**": see Section 11.3 for definitions pertaining to infectious waste.

"**Institutional Waste**" means solid waste that is generated by institutional enterprises such as social, charitable, educational, and government services and that is similar in nature to household waste.

"**Intermediate Cover**" means a layer of compacted earth, or other suitable material as approved by the Department, applied to a partially completed landfill.

"**Landfill**" means a natural topographic depression and/or man-made

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excavation and/or diked area, formed primarily of earthen materials, which has been lined with man-made and/or natural materials or remains unlined and which is designed to hold an accumulation of solid wastes.

"**Leachate**" means liquid that has passed through, contacted, or emerged from solid waste and contains dissolved, suspended, or miscible materials, chemicals, and microbial waste products removed from the solid waste.

"**Lift**" means a completed series of compacted layers within a cell.

"**Liner**" means a continuous layer of impermeable material beneath and on the sides of a landfill or landfill cell.

"**Liquid Waste**" means a waste that contains less than 20 percent solids or releases free liquids.

"**Local Agency**" means any special district, authority, municipality, county, or any other political subdivision.

"**Materials Recovery Facility**" means a facility at which materials, other than source separated materials, are recovered from solid waste for recycling or for use as an energy source.

"**Municipal Solid Waste**" means household waste and solid waste that is generated by commercial, institutional, and industrial sources and is similar in nature to household waste.

"**Municipal Solid Waste Ash**" means the ash resulting from the combustion of municipal solid waste in a thermal recovery facility.

"**New Sanitary Landfill Cell**" means any municipal solid waste landfill unit which has not received waste prior to the effective date of these regulations. "Sanitary Landfill Cell" has the same meaning as "Municipal Solid Waste Landfill Unit" in the RCRA Subtitle D (40 CFR Part 258) Regulations.

"**New Solid Waste Facility**" means a facility which was not in operation or for which construction had not commenced on or before the date of enactment of these regulations.

"**Onsite**" means on the same or geographically contiguous property which may be divided by public or private right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which the owner controls and to which the public does not have access are also considered onsite property.

"**Open Burning**" means the combustion of solid waste without:

(1) Control of combustion air to maintain adequate temperature for efficient combustion,

(2) Containment of the combustion reaction in an enclosed device to provide sufficient residence time and mixing for complete combustion, and

(3) Control of the emission of the combustion products.

"**Operator**" means the person responsible for the overall operation of a solid waste facility.

"**Owner**" means the person who owns a facility or any part of a facility.

"**Permittee**" means a person holding a permit issued by the Department pursuant to this regulation.

"**Person**" means any individual, trust, firm, joint stock company, federal agency, partnership, corporation (including a government corporation), association, state, municipality, commission, political subdivision of a state, any interstate body, company, society, or any organization of any form.

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"**Personnel**" or "**Facility Personnel**" means all persons who work at, or oversee the operations of, a solid waste facility, and whose actions or failure to act may result in noncompliance with the requirements of the Delaware Solid Waste Regulations or other regulations under the jurisdiction of the State of Delaware.

"**Postclosure Care**" means maintenance and long-term monitoring of, and financial responsibility for, a closed facility.

"**Recharge Area**" means that portion of a drainage basin in which the net saturated flow of ground water is directed away from the water table.

"**Recyclable Material**" means a solid waste that exhibits the potential to be used repeatedly in place of a virgin material.

"**Recycling**" means the process by which recyclable materials, which would otherwise be disposed of as solid waste, are returned to the economic mainstream in the form of raw materials or products.

"**Refuse**" means any putrescible or nonputrescible solid waste, except human excreta, but including garbage, rubbish, ashes, street cleanings, dead animals, offal and solid agricultural, commercial, industrial, hazardous and institutional wastes, and construction wastes.

"**Regulated Medical Waste**": see Section 11.3 for definitions pertaining to Regulated Medical / Infectious Waste.

"**Resource Recovery**" means the process by which materials, excluding those under control of the Nuclear Regulatory Commission, which still have useful physical or chemical properties after serving a specific purpose are reused or recycled for the same or another purpose, including use as an energy source.

"**Resource Recovery Facility**" means a facility that is either a Materials Recovery Facility Or A Thermal Recovery Facility.

"**Rubbish**" means any nonputrescible solid waste, excluding ashes, such as cardboard, paper, plastic, metal or glass food containers, rags, waste metal, yard clippings, small pieces of wood, excelsior, rubber, leather, crockery, and other waste materials.

"**Runoff**" means any precipitation that drains over land from any part of a facility.

"**Runon**" means any precipitation that drains over land onto any part of a facility.

"**Salvaging**" means the controlled removal of solid waste from any facility for reuse of the waste material.

"**Sanitary Landfill**" means a land site at which solid waste is deposited on or into the land as fill for the purpose of permanent disposal, except that it will not include any facility that has been approved for the disposal of hazardous waste under the Delaware Regulations Governing Hazardous Waste.

"**Sanitary Landfill Cell Boundary**" means a vertical surface located at the hydraulically downgradient limit of the cell. This vertical surface extends down into the uppermost aquifer. "Sanitary Landfill Cell Boundary" has the same meaning as "Waste Management Unit Boundary" in the RCRA Subtitle D (40 CFR Part 258) Regulations. "Sanitary Landfill" has the same meaning as "MSWLF" in the RCRA Subtitle D (40 CFR Part 258) Regulations.

"**Saturated Zone**" means that part of the earth's crust in which all the voids are filled with water.

"**Scavenging**" means the uncontrolled and/or unauthorized removal of solid waste from any facility.

"**Secretary**" means the Secretary of the Department of Natural Resources and Environmental Control or his or her duly authorized designee.

"**Setback**" means the area between the actual disposal area and the property line which can be used for construction of environmental control systems such as runoff diversion ditches, monitoring wells, or scales.

"**Site**" means the area of land or water within the property boundaries of a facility where one or more solid waste treatment, resource recovery, recycling, storage or disposal areas are located.

"**Sludge**" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility exclusive of the treated effluent from a wastewater treatment plant.

"**Solid Waste**" means any garbage, refuse, rubbish, sludge from a waste treatment plant, water supply treatment plant or air pollution control facility and other discarded material, including solid, liquid, semisolid or contained gaseous material resulting from industrial, commercial, mining and agricultural operations, and from community activities, but does not include solid or dissolved material in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under 7 **Del.C.** Ch. 60, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of l954, as amended.

"**Source Separated**" means divided into its separate recyclable components at the point of generation.

"**Special Solid Wastes**" means those wastes that require extraordinary management. They include but are not limited to abandoned automobiles, white goods, used tires, waste oil, sludges, dead animals, agricultural and industrial wastes, infectious waste, municipal ash, septic tank pumpings, and sewage residues.

"**Storage**" means the holding of solid waste for a temporary period, at the end of which time the solid waste is treated, disposed of, or stored elsewhere.

"**Subbase**" means the supporting soil layers beneath a liner.

"**Surface Water**" means water occurring generally on the surface of the earth.

"**Thermal Recovery Facility**" means a facility designed to thermally break down solid waste and to recover energy from the solid waste.

"**Topsoil**" means the friable dark upper portion of a soil profile that contains mineral substances and organic material in varying degrees of decomposition and is capable of supporting vegetation.

"**Transfer Station**" means any facility where quantities of solid waste delivered by vehicle are consolidated or aggregated for subsequent transfer by vehicle for processing, recycling, or disposal.

"**Transportation**" means the movement of solid waste by air, rail, water, over the roadway, or on the ground.

"**Transporter**" means any person engaged in the transportation of solid waste.

"**Treatment**" means the process of altering the physical, chemical, or biological condition of the waste to prevent pollution of water, air, or soil or to render the waste safe for transport, disposal, or reuse.

"**Unconfined Aquifer**" means an aquifer in which the upper surface of the zone of saturation is at atmospheric pressure.

"**Uppermost Aquifer**" means the geologic formation nearest the natural ground surface that is an aquifer, as well as, lower aquifers that are hydraulically interconnected with this aquifer within the facility's property boundary.

"**Variance**" means a permitted deviation from an established rule or regulation, or plan, or standard or procedure, as provided in 7 **Del.C.** Ch. 60.

"**Vector**" means a carrier organism that is capable of transmitting a pathogen from one organism to another.

"**Vehicle**" means a motorized means of transporting something. "Vehicle" includes both the motorized unit and all containerized units of a conveyance attached thereto.

"**Water Table**" means that surface in a ground water body at which the water pressure is atmospheric. It is defined by the levels at which water stands in wells that penetrate the water body just far enough to hold standing water.

"**Well**" means any excavation that is drilled, cored, bored, washed, driven, dug, jetted or otherwise constructed when the intended use of such excavation is for the location, testing, acquisition or artificial recharge of underground water, and where the depth is greater than the diameter or width.

"**Working Face**" means that portion of a landfill where waste is discharged, spread and compacted prior to placement of daily cover.

8 DE Reg. 354 (8/1/04)

4.0 Permit Requirements And Administrative Procedures

4.1 General Provisions

4.1.1 Permit required

4.1.1.1 No person shall engage in the construction, operation, material alteration, or closure of a solid waste facility, unless exempted from these regulations under Section 2.3, without first having obtained a permit from the Department.

4.1.1.2 No person that is subject to the requirements of Section 7.2 or 7.3 of these regulations shall transport solid waste in or through the State of Delaware without first having obtained an appropriate solid waste transporter's permit from the Department.

4.1.1.3 Permittees shall abide by the conditions of their permit issued by the Department.

4.1.2 Public notice; hearing

Within 60 days after receipt of a completed application and all other required information, the Department will give public notice and the opportunity for a public hearing as provided in 7 **Del.C.** Ch. 60. The cost of the advertisement shall be borne by the applicant. A 15 day comment period will follow the publication date of each public notice. If no meritorious adverse public comments are received during this period, and the Secretary does not deem a public hearing to be in the best interest of the State, the Department will enter into the permit approval/denial phase. If a meritorious request for a hearing is received during the comment period, or if the Secretary deems a hearing to be in the best interest of the State, a public hearing will be held as provided in 7 **Del.C.** §6004 and 6006.

4.1.3 Approval/denial

The Department shall act upon an application for a permit within 60 days after the close of the public notice comment period or upon receipt of the hearing officer's report if a hearing was required. When a final determination is made on an application, the Department shall issue a permit or send a letter of denial to the applicant explaining the reasons for the denial.

4.1.4 Suspension, revocation of permit

A permit may be revoked or suspended for violation of any condition of the permit or any requirement of this regulation, after notice and opportunity for hearing in accordance with 7 **Del.C.** Ch. 60.

4.1.5 Duration of permit

A permit will be issued for a specific duration which will be determined by the Department.

CHAPTER 62-709 CRITERIA FOR THE PRODUCTION AND USE OF COMPOST MADE FROM SOLID WASTE

62-709.300 General Provisions.

(1) General provisions relating to solid waste management may be found in Chapter 62-701, F.A.C., including statements of intent, definitions, prohibitions, general permitting requirements, alternate procedures, and forms. Except where the context indicates otherwise, these general provisions apply to this chapter.

(2) No solid waste management facility whose purpose is or includes the production of compost shall be constructed, operated, expanded or modified without an appropriate or currently valid permit issued by the Department unless specifically exempted by Chapter 403, F.S., Chapter 62-701, F.A.C., or this chapter.

(3) Application for a permit shall be pursuant to the requirements specified in Rules 62-701.320(5), (6), (7)(a)-(g) and (8), F.A.C., except that Form 62-701.900(10) shall be used.

(4) The Department, after evaluation of a permit application and all supporting information, shall issue or deny a permit pursuant to Rules 62-701.320(9)(a), (b), or (d), F.A.C. The supporting information shall provide sufficient detail to allow evaluation of the permit application. A copy of the Department-approved engineering drawings, plans, reports, operational plans, and supporting information shall be kept at the facility at all times for reference and inspections.

(5) Simple exposure of solid waste with little to no mechanical handling that results in natural decay is considered disposal and is subject to the requirements of Chapter 62-701, F.A.C.

(6) Solid waste which is composted as a volume reduction measure prior to intended disposal is not regulated by this rule, but is regulated under Chapter 62-701, F.A.C.

(7) Compost produced outside of the State of Florida which is used or sold for use within the state shall comply with the requirements specified in Rules 62-709.530, 62-709.550 and 62-709.600, F.A.C.

(8) Composting facilities that process domestic wastewater residuals with yard trash are not regulated under this chapter, but are regulated under Chapter 62-640, F.A.C.

(9) Composting facilities that process domestic wastewater residuals with other solid wastes are regulated under this chapter. However, nothing in this chapter shall relieve such facilities from complying with other applicable federal or state rules or regulations regarding domestic wastewater residuals management.

(10) The following activities are not regulated by this rule provided no public nuisance or any condition adversely affecting the environment or public health is created and the activity does not violate other state or local laws, ordinances, rules, regulations, or orders.

(a) Backyard composting and the resulting compost.

(b) Normal farming operations. For purposes of this rule, composting of only yard trash or manure by persons on their own property for their own use on that property as part of agronomic, horticultural or silvicultural operations will also be considered as normal farming operations. Any compost which is sold for use by persons other than the generator shall meet the requirements of Rules 62-709.530 through .600, F.A.C.

(11) No person shall cause or allow the discharge of air pollutants which cause objectionable odor in violation of Chapter 62-296, F.A.C.

(12) The prohibitions of Rule 62-701.300(2), F.A.C., as well as the siting restriction of Rule 62-701.320(12), F.A.C., apply to the siting of composting facilities.

(13) No compost made from solid waste shall be used as fill material in any natural or artificial body of water, open sinkhole, or a dewatered pit.

(14) Any compost made from solid waste which cannot be used pursuant to the requirements of this rule shall be reprocessed or disposed of pursuant to the requirements of Chapter 62-701, F.A.C.

(15) No treated or untreated biomedical waste, as regulated by Chapter 64E-16, F.A.C., shall be accepted at composting facilities.

(16) Used oil, hazardous waste and asbestos-containing waste shall not be processed into compost except for small quantities normally found in household waste.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043, 403.707 FS. History–New 11-21-89, Formerly 17-709.300, Amended 12-17-96, 10-22-00.

62-709.320 Yard Trash Processing Facilities.

(1) Applicability.

(a) Owners or operators of yard trash processing facilities that meet the criteria of this rule shall register with the Department in accordance with Rule 62-709.320(5), F.A.C., in lieu of obtaining a permit under Rule 62-709.300(2), F.A.C. However, if these criteria are not met then a solid waste management facility permit is required:

1. In accordance with Chapter 62-701, F.A.C., for disposal operations or transfer stations; or

2. In accordance with Chapter 62-709, F.A.C., for recycling operations. In this case, the provisions for composting facilities in this chapter shall apply to the recycling operations, including permitting, design and operating criteria, testing, recording and reporting.

(b) Owners or operators of yard trash processing facilities that meet the criteria of this rule are not subject to the requirements of Rules 62-709.500, 62-709.510 and 62-709.530, F.A.C. However, they are subject to the requirements in Rules 62-709.300, 62-709.550, and 62-709.600, F.A.C.

(c) Owners or operators of existing yard trash processing facilities shall register in accordance with subsection (5) of this rule by April 22, 2001, and comply with the remaining provisions of this rule by October 22, 2001. However, if a yard trash processing facility is already authorized under another Department solid waste management facility permit, then facility registration under this rule is not required as long as that permit remains valid.

(2) Definitions. The following terms as used in this rule, unless the context indicates otherwise, shall have the following meaning:

(a) "Clean wood" means wood, including lumber, tree and shrub trunks, branches, and limbs, which is free of paint, glue, filler, penthachlorophenol, creosote, tar, asphalt, other wood preservatives or treatments.

(b) "Yard trash" has the meaning given in Rule 62-701.200, F.A.C., and solely for purposes of this rule, it includes clean wood.

(c) "Yard trash processing facility" means a yard trash transfer station or a yard trash recycling facility, but does not include a facility used for the disposal of yard trash.

(d) "Yard trash recycling facility" means a facility at which yard trash is mulched, composted, or otherwise processed into useable materials, but does not include a facility used for the disposal of yard trash.

(e) "Yard trash transfer station" means a facility at which yard trash is stored or held for transport to a processing or disposal facility or for use at another site. It does not include green boxes, compactor units, permanent dumpsters, or other containers from which such wastes are transported to a landfill or other solid waste management facility.

(3) Prohibitions. Owners or operators of yard trash processing facilities shall comply with the prohibitions specified in Rules 62-701.300(1), (2)(a), (d), (e), (f), (h), and (3), F.A.C. In addition, the following apply to yard trash processing facilities, although it is the intent of the Department to repeal these paragraphs if and when Rule 62-701.300, F.A.C., is amended to address yard trash processing facilities.

(a) No yard trash or processed yard trash shall be placed within 100 feet of any existing or approved off-site potable water well unless this activity takes place at a facility for which a complete registration was filed or which was originally registered before the potable water well was in existence. This prohibition shall apply to lateral expansion of the registered facility.

(b) No yard trash or processed yard trash shall be placed within 200 feet of any existing or approved potable water well serving a community water system as defined in Rule 62-550.200(9), F.A.C., unless this activity takes place at a facility for which a complete registration was filed or which was originally registered before the potable water well was in existence. This prohibition shall apply to lateral expansion of the registered facility.

(c) No yard trash or processed yard trash shall be placed within 50 feet of any natural or artificial body of water. For purposes of this paragraph, a "body of water" includes wetlands within the jurisdiction of the Department, but does not include impoundments or conveyances that are part of a permitted stormwater management system, or water bodies contained completely within the property boundaries of the facility that do not discharge from the site to surface waters.

(4) Design and operating requirements.

(a) The facility shall have the operational features and equipment necessary to maintain a clean and orderly operation, including:

1. An effective barrier to prevent unauthorized entry and dumping into the facility site;

2. Dust control methods; and

3. Fire protection and control provisions to deal with accidental burning of solid waste, including:

a. There shall be an all-weather access road, at least 20 feet wide, all around the perimeter of the site;

b. There shall be interior lanes at least 15 feet wide; and

c. No part of the area that is occupied by processed or unprocessed material shall be more than 50 feet from access by motorized fire fighting equipment.

(b) The facility shall be operated in a manner to control disease vectors, and to control objectionable odors in accordance with Rule 62-296.320(2), F.A.C.

(c) Any yard trash received at the facility shall be processed or removed within 6 months, or within the period required to receive 3,000 tons or 12,000 cubic yards, which ever is greatest. To be considered processed, material must pass a 6-inch sieve. However, logs with a diameter of 6 inches or greater may be stored for up to 12 months before they are processed or removed, provided the logs are separated and stored apart from other materials on site.

(d) Processed material shall be removed from the facility within 18 months. However, if a yard trash processing facility is authorized under another Department solid waste management facility permit, then the department shall authorize on-site storage of processed material for longer than 18 months if the owner or operator demonstrates that there is a quantifiable use for such material for cover, erosion control, closure, or other similar activities at that permitted facility.

(e) Only yard trash, and bags used to collect yard trash, shall be accepted at the facility. Any other material shall be containerized, with all putrescible material removed within 48 hours. Further, if any of the following materials are discovered, they shall be immediately containerized and removed from the facility: treated or untreated biomedical waste; hazardous waste; or any materials containing a polychlorinated biphenyl (PCB) concentration of 50 parts per million or greater.

(5) Registration. Owners or operators of yard trash processing facilities shall register with the Department before beginning operation, or in accordance with paragraph (1)(c) of this rule.

(a) Registration shall be submitted on Form 62-709.320(7)(a).

(b) The registrant shall provide the facility name, physical address, mailing address, contact name and telephone number, and affirm that facility design and operations comply with the requirements of this rule. The registrant shall also provide documentation that the registrant either owns the land or has legal authorization from the landowner to operate a yard trash processing facility on that site.

(c) Renewal applications for registrations shall be submitted annually by April 1.

(d) The application for registration shall include the annual report required in subsection (6) of this rule. Owners and operators of yard trash processing facilities that are submitting their first registration before beginning operations are not subject to this requirement.

(e) The processing fee for registration is $35. The fee shall be submitted with the registration application in accordance with the provisions of Rule 62-4.050, F.A.C.

(6) Record keeping and reporting. Monthly records of incoming and outgoing material shall be kept on site or at another location as indicated on the registration form for at least three years. The values may be in cubic yards or tonnage, but the same unit of measurement shall be used to record both incoming and outgoing material. An annual report, based on the preceding calendar year, shall summarize the monthly records and shall be submitted to the Department using Form 62-709.320(7)(b) with the application for registration. The initial annual report for existing facilities shall also include a current site inventory of materials.

(7) Forms. The forms used by the Department in this rule are adopted and incorporated by reference in this subsection. The form is listed by rule number, which is also the form number, and with the subject, title and effective date. Copies of forms may be obtained from a local District Office or by writing to the Florida Department of Environmental Protection, Solid Waste Section, Mail Station 4565, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

(a) Form 62-709.320(7)(a): Application for Registration of a Yard Trash Processing Facility, effective 10-22-00.

(b) Form 62-709.320(7)(b): Annual Report for a Yard Trash Processing Facility, effective 10-22-00.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043, 403.707 FS. History–New 10-22-00.

62-709.500 Design Criteria.

(1) The facility site shall have sufficient structural support for the operation including total waste received, material processed, compost stored, equipment, and structures to be built on site.

(2) Facility design plans shall include:

(a) A map or aerial photograph of the area at a scale of not over 500 feet to the inch showing land use and zoning within one mile of the facility. This map or photograph shall be no more than one year old, unless no substantial changes have occurred since the map or photograph was made. All significant features such as buildings, wells, natural and artificial bodies of water, watercourses and roads shall be indicated and labeled;

(b) A site plan at a scale of not over 200 feet to the inch showing dimensions, details of the proposed areas for receiving, processing, production, curing and storage, and fencing;

(c) Topographic maps at the same scale as the site plan with no less than one-foot and no greater than five-foot contour intervals showing contour interval used, original elevations and proposed final contours, general outline of facility area, access roads, grades required for proper drainage, any special drainage devices, and all other pertinent information;

(d) A report on:

1. Designed capacity of the proposed composting facility;

2. Anticipated type and source of solid waste to be received; and

3. A general description of any additives to be used in the production of compost with reasonable assurances that they will not endanger the environment or public health, safety and welfare.

(3) Stormwater management system design standards.

(a) Stormwater controls shall be designed, constructed, and maintained to meet the requirements of Chapters 62-25 and 62-330, F.A.C., or requirements of the water management district where the Department has delegated stormwater permitting to a water management district.

(b) Stormwater management systems shall be designed to prevent run-off from entering the receiving, processing, curing or storage areas. Stormwater or other water which comes into contact with the solid waste received, being stored, processed or composted, or which mixes with leachate shall be considered leachate and shall be reused in the process or treated to meet applicable standards of Chapters 62-25, 62-302 and 62-330, F.A.C., at the point of discharge.

(c) The facility site shall be graded to minimize ponding of water where the solid waste or compost is received, processed, cured or stored.

(4) The facility site shall be provided with operational features and appurtenances necessary to maintain a clean and orderly operation. These minimum features are:

(a) An effective barrier to prevent unauthorized entry and dumping into the facility site;

(b) An all-weather access road to the site;

(c) Signs indicating name of operating authority, contact person and telephone number in case of emergency, and traffic flow. If the facility receives solid waste from the general public, the signs shall also indicate hours of operation, and charges (if any);

(d) Dust control methods where needed to control problems;

(e) Litter control devices as needed;

(f) Fire protection and control provisions to deal with accidental burning of solid waste or compost at the facility; and

(g) Odor control devices, methods or practices.

(5) An operation plan shall be submitted with all facility construction permit applications. The operation plan shall provide written instructions for the daily operation and maintenance of the facility. The plan shall be revised when operational procedures change. The plan shall include the following detailed procedures at a minimum:

(a) Designation of persons responsible for operation and maintenance of the facility;

(b) Proposed equipment;

(c) Controlling the type of waste received at the site. The plan shall specify inspection procedures, number and location of spotters and procedures to be followed if prohibited wastes are discovered;

(d) Weighing or measuring incoming waste pursuant to (6) below;

(e) Vehicle traffic control and unloading;

(f) Method and sequence of processing the waste;

(g) Operations of leachate and stormwater controls;

(h) Designation of permitted backup receiving and disposal areas; and

(i) Contingency operations, including reserve or alternate equipment, or alternate waste handling and disposal methods in case of emergency such as a natural disaster or equipment failure or receipt of prohibited materials such as used oil, asbestos-containing material or hazardous or biomedical waste.

(6) Scales, or access to scales, for weighing solid waste received are required for all facilities owned or operated by or on behalf of a county or municipality.

(7) In addition to the requirements specified in (1) through (6) above, the following requirements apply to composting facilities which process solid waste other than only yard trash or manure.

(a) The waste receiving and storage areas, and the processing and curing areas shall be located on surfaces, such as asphalt or concrete, to minimize release of leachate into groundwater. The surfaces shall be capable of withstanding wear and tear from normal operations.

(b) The facility shall have a leachate collection and removal system designed, constructed, maintained and operated to collect and remove leachate from the waste receiving and storage areas and the processing and curing areas. Washdown from these areas and equipment, stormwater coming into contact with solid waste or compost in these areas, and condensate will be considered leachate.

(c) Leachate shall be reused in the process or treated in a leachate treatment system to meet applicable standards of Chapters 62-25, 62-302 and 62-330, F.A.C., at the point of discharge.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043, 403.707 FS. History–New 11-21-89, Formerly 17-709.500, Amended 10-22-00.

62-709.510 Operation Criteria.

(1) The following operation requirements apply to all composting facilities.

(a) The design features pursuant to Rule 62-709.500, F.A.C., shall be properly operated and maintained.

(b) The facility shall be operated in a manner, with any needed measures taken, to control vectors and odors.

(c) To insure proper staffing and suitable processing facilities, the following shall be required:

1. During hours when solid waste is received, an attendant at all facility sites; and

2. Communication facilities for use in emergencies at all facilities.

(d) Measures shall be taken to avoid mixing incoming solid waste with finished compost ready to be used or sold for use to discourage the re-introduction of weed seeds and pathogens.

(e) More than half of the compost stored at the facility shall be used or sold for use within each year beginning the third year after facility startup. Further, any compost remaining at the facility for three years after it was produced shall be disposed of pursuant to the requirements of Chapter 62-701, F.A.C., or shall be reprocessed so that it can be sold or used.

(f) The amount of compost stored at the facility shall not exceed the designed storage capacity.

(2) In addition to the requirements specified in (1) above, the following requirements apply to composting facilities that process only yard trash or manure.

(a) Yard trash or manure which will not be made into compost or processed into other usable material shall be removed at least monthly.

(b) Solid waste other than yard trash or manure received at the facility shall be separated and stored in a manner that prevents vector problems, and shall be removed within 72 hours. However, recovered material which is stored in a manner that prevents vector problems may remain at the facility for up to one year.

(3) In addition to the requirements specified in subsection (1) above, the following requirements apply to composting facilities that process solid waste, other than only yard trash or manure.

(a) All waste delivered to the facility shall be confined to a designated delivery or storage area until processed. Any material not processed within 72 hours shall be removed and disposed of pursuant to Chapter 62-701, F.A.C. Any recovered materials removed from the solid waste stream shall be stored in a manner that prevents vector problems, and shall be removed from the facility at least annually.

(b) The temperature of the composting solid waste shall be monitored at a depth of two feet into the pile on a daily basis during the initial week of composting and then on a weekly basis until the finished compost is produced. The temperature readings and the length of the composting period shall be recorded. These records shall be kept for at least three years and shall be made available for inspection by Department personnel.

(4) When a solid waste management facility that produces compost ceases operation, all residuals, solid waste, and recyclable materials shall be removed from the site and recycled, or disposed of pursuant to the requirements of Chapter 62-701, F.A.C. Any remaining compost shall be used in accordance with the requirements of this rule or disposed of pursuant to the requirements of Chapter 62-701, F.A.C.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043 FS. History–New 11-21-89, Formerly 17-709.510, Amended 10-22-00.

62-709.530 Testing, Recording and Reporting Requirements.

(1) The compost product shall be sampled and analyzed as follows.

(a) A composite sample of the compost produced at each composting facility shall be analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first, for:

Parameter	Unit	Method
Moisture	%	EPA 160.3
Total Nitrogen	% dry weight	EPA 351 and 353
Total Phosphorus	% dry weight	EPA 365
Total Potassium	% dry weight	EPA 3050/7610
Reduction in Organic Matter	%	EPA 160.4
Organic Matter	%	EPA 160.4
pH	Standard units	EPA 9045

(b) Compost produced by persons for their own use, where the compost is made from yard trash or manure, is not required to be sampled and analyzed as specified in (a) above.

(c) In addition to (a) above, compost made from solid waste, other than only yard trash or manure shall be analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first, for:

Parameter	Unit	Method
Foreign Matter	%	see (f) below
Cadmium	mg/kg dry weight	EPA 3050/7130
Copper	mg/kg dry weight	EPA 3050/7210
Lead	mg/kg dry weight	EPA 3050/7420
Nickel	mg/kg dry weight	EPA 3050/7520
Zinc	mg/kg dry weight	EPA 3050/7950
Fecal Coliform	most probable number (MPN)	

per gram of volatile suspended solids (VSS)	SM 908

(d) The Department may decrease or increase the parameters to be analyzed for or the frequency of analysis based on monitoring data, changes in the waste stream or processing, or the potential presence of toxic substances.

(e) Sample collection, preservation, and analysis shall assure valid and representative results pursuant to a Department-approved quality assurance plan. Composite samples shall consist of at least three individual samples of equal volume taken from separate areas along the side of the pile of the compost produced. Each sampling point shall be at a depth of two feet into the pile from the outside surface of the pile. U.S. Environmental Protection Agency (EPA) Methods 160.3, 160.4, 351, 353 and 365 are contained in Methods for Chemical Analysis of Water and Waste, 1979; EPA Methods 160.3, 160.4, 351, 353 and 365 are contained in Methods for Chemical Analysis of Water and Waste, 1979; EPA Methods 3050, 7130, 7210, 7420, 7520, 7610, 7950 and 9045 are contained in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (EPA SW-846), 3rd Edition, September 1986, updated December 1987; Standard Method (SM) 908 is contained in Standard Methods for the Examination of Water and Wastewater, 16th Edition, 1985. Sampling shall be performed in accordance with guidance contained in Chapter 9 of EPA SW-846 and Section 4.0 of Engineering Support Branch Standard Operating Procedures and Quality Assurance Manual, EPA Region IV, April 1, 1986. Analytical results shall be submitted to the appropriate District office within 30 days of sample collection.

(f) Foreign matter content shall be determined by passing a dried, weighed sample of the compost product through a one-quarter inch or six millimeter screen. EPA Method 160.3 shall be used to dry the sample. The material remaining on the screen shall be visually inspected, and the foreign matter that can be clearly identified shall be separated and weighed. The weight of the separated foreign matter divided by the weight of the total sample multiplied by 100 shall be the % dry weight of the foreign matter content.

(g) The organic matter is determined by measuring the volatile solids content using EPA method 160.4.

(h) The reduction of organic matter is determined by comparing the organic matter content of the feedstock into the composting process and the organic matter content of the compost product. The amount of reduction is determined as a percent of the original amount contained in the feedstock using the following calculation:

% ROM = [1 - (OMK(100 - OM)/OM(100 - OMK))]100 where: % ROM = reduction of organic matter, OM = % organic matter content of dry matter before decomposition, and OMK = % organic matter content of dry matter after decomposition.

(2) Facility owners or operators shall record and maintain for three years the following information regarding their activities for each month of operation of the facility. Records shall be available for inspection by Department personnel during normal business hours and shall be sent to the Department upon request:

(a) Analytical results on compost testing;

(b) The quantity, type and source of waste received;

(c) The quantity and type of waste processed into compost;

(d) The quantity and type of compost produced by product classification; and

(e) The quantity and type of compost removed for use or disposal, by product classification, and the market or permitted disposal facility.

(3) Owners and operators of facilities producing compost made from solid waste shall submit to the Department an annual report by June 1. The report shall be submitted on Form 62-701.900(11), and shall include:

(a) The facility name, address and permit number;

(b) The year covered;

(c) The total quantity in tons, with sludge values expressed in dry weight, and type of waste received at the facility during the year covered by the report;

(d) The total quantity in tons, with sludge values expressed in dry weight, and type of waste processed into compost at the facility during the year covered by the report;

(e) The total quantity in tons and type of compost produced at the facility, by product classification, during the year covered by the report; and

(f) The total quantity in tons and type of compost removed for use or disposal from the facility, by product classification, along with a general description of the market if for use during the year covered by the report.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043 FS. History–New 11-21-89, Formerly 17-709.530, Amended 10-22-00.

62-709.550 Classification of Compost.

(1) Compost shall be classified based on the type of waste processed, product maturity, the amount of foreign matter in the product, the particle size and organic matter content of the product, and the concentration of heavy metals as specified in the following sections. The following characteristics shall be used:

(a) Type of waste processed.

1. Yard trash only.

2. Manure or yard trash with manure.
3. Solid waste, other than only yard trash or manure.
(b) Product maturity.
1. Mature.
2. Semi-mature.
3. Fresh.
(c) Foreign matter content.
1. <= 2% dry weight.
2. > 2%, but <= 4% dry weight.
3. > 4%, but <= 10% dry weight.
(d) Particle size, using the screen size that the compost passed through. Organic matter content shall be associated with particle size.
1. Fine: <= 10mm, and an organic matter content of >= 25%.
2. Medium: <= 15mm, and an organic matter content of >= 30%.
3. Coarse: <= 25mm, and an organic matter content of >= 35%.
(e) The codes in the following table for heavy metal concentrations shall be used in classifying the compost produced. The concentrations are expressed in mg/kg dry weight. In determining the appropriate classification code for parameter concentrations, if any one parameter falls in a higher concentration grouping, the code for that higher grouping will apply.
Concentration codes

Parameter	1	2	3	4
Cadmium	< 15	15- < 30	30-100	> 100
Copper	< 450	450- < 900	900-3,000	> 3,000
Lead	< 500	500- < 1,000	1,000-1,500	> 1,500
Nickel	< 50	50- < 100	100-500	> 500
Zinc	< 900	900- < 1,800	1,800-10,000	> 10,000

(2) Compost shall be classified as follows.
(a) Type Y is compost made only from yard trash, which is mature or semi-mature, and is fine, medium or coarse. For such compost, a foreign matter content of less than 2% and a metal concentration equivalent to code 1 is assumed.
(b) Type YM is compost made from only manure or yard trash with manure which is mature or semi-mature and is fine, medium or coarse. For such compost, a foreign matter content of less than 2% and a metal concentration equivalent to code 1 is assumed.
(c) Type A is compost made from solid waste, other than only yard trash and manure, which is mature and is fine. The foreign matter content shall be less than or equal to 2%, and the metal concentration shall fall under code 1. Further, it shall contain no foreign matter, such as glass or metal shards, of a size and shape that can cause injury.
(d) Type B is compost made from solid waste, other than only yard trash or manure, which is mature or semi-mature and is fine or medium. The foreign matter content shall be less than or equal to 4%, and the metal concentration shall fall under codes 1 or 2. Further, it shall contain no foreign matter, such as glass or metal shards, of a size and shape that can cause injury.
(e) Type C is compost made from solid waste, other than only yard trash or manure, which is mature or semi-mature and is fine, medium or coarse. The foreign matter content shall be less than or equal to 10%, and the metal concentration shall fall under codes 1, 2 or 3.
(f) Type D is compost made from solid waste, or from only yard trash or manure, which is fresh and is fine, medium or coarse. It shall have a foreign matter content of less than or equal to 10%, and the metal concentration shall fall under codes 1, 2 or 3. Foreign matter content and metal concentration is assumed for fresh compost made from only yard trash or manure.
(g) Type E is compost made from solid waste, other than only yard trash or manure, which has a metal concentration that falls under code 4.
(3) Compost maturity shall be determined as follows:
(a) Mature compost is a highly stabilized compost material that has been exposed to prolonged periods of decomposition. It will not reheat upon standing to greater than 20ºC above ambient temperature. It has beneficial use and can be used in direct contact with roots. The material should be brown to black in color. This level of maturity is indicated by a reduction of organic matter of greater than 60%.
(b) Semi-mature compost is compost material that is at the mesophilic stage. It will reheat upon standing to greater than 20ºC above ambient temperature. It has beneficial use, although direct contact with roots should be avoided. The material should be a light to dark brown in color. This level of maturity is indicated by a reduction of organic matter of greater than 40% but less than or equal to 60%.
(c) Fresh compost is compost material that has been through the thermophilic stage and has undergone partial decomposition. The material will reheat upon standing to greater than 20ºC above ambient temperature. It has beneficial use, but proper care is needed as further decomposition and stabilization will occur. The material should be similar in texture and color to the feed stock into the composting process. This level of maturity is indicated by a reduction of organic matter of greater than 20% but less than or equal to 40%.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043 FS. History–New 11-21-89, Formerly 17-709.550.

62-709.600 Criteria for the Use of Compost.

(1) Compost classified as Types Y, YM or A shall have unrestricted distribution.

(2) Compost classified as Types B or C shall be restricted to use by commercial, agricultural, institutional or governmental operations. However, if it is used where contact with the general public is likely, such as in a park, only Type B may be used.

(3) Compost classified as Type D shall only be used at landfills or land reclamation projects. However, such use shall not be allowed if contact with the general public is likely.

(4) Type E must be disposed of pursuant to 62-701, F.A.C., unless demonstrated that use of this material will not endanger the public or the environment.

(5) The total amount of heavy metal applied to soils shall be (in pounds per acre) as follows.

(a) Cadmium – 4.45.

(b) Nickel – 111.

(c) Copper – 111.

(d) Zinc – 222.

(e) Lead – 445.

(6) For applications where repeated use of the compost can be expected, such as in agricultural applications, the amount of heavy metal applied to soils shall be no more than one-tenth of the amount listed in (5) above per acre per year. For applications where repeated use of the compost is not expected, such as land reclamation or as a soil amendment on highway medians, the amount listed in (5) above may be applied within a one-year period.

(7) If a person wishing to apply compost to the soil can demonstrate through an analysis of the cation exchange capacity and other physical and chemical characteristics of the receiving soil that a higher application rate will provide an equal degree of protection to the public and the environment, the Department may approve such application rates pursuant to Rule 62-709.700, F.A.C.

(8) Compost shall not be used in any manner that will endanger public health and welfare, and the environment, or would violate the provisions of this rule.

Specific Authority 403.061, 403.704, 403.7043 FS. Law Implemented 403.7043 FS. History–New 11-21-89, Formerly 17-709.600.

391-3-4-.16 Composting. Amended.
(1) Composting is a desirable means of reducing the amount of solid waste destined for disposal and, as such, shall be regulated in the following manner:
(a) Yard trimmings composting operations are excluded from regulation as solid wastes handling facilities. To be considered exempt from regulation, yard trimmings must be kept separate from solid waste and must be converted to a usable compost or mulch product.
(b) Any person involved in the composting of solid waste or special solid waste, other than yard trimmings as provided in paragraph (a) above or covered by a permit-by-Rule, shall comply with the following permit requirements:
1. Design Standards: a design and operation plan prepared by a professional engineer registered to practice in Georgia and proposed as a part of the permit application must include, but is not limited to, the following standards:
(i) Capacity. The facility shall be adequate in size and capacity to manage the projected incoming solid waste and residue volumes.
(ii) Equipment. The equipment must be capable of producing a compost or mulch that is nonpathogenic, free of offensive odors, biologically and chemically stable, and free of injurious components or particles.
(iii) Storage Time. The facility shall provide for a minimum storage capacity of at least three (3) times the daily capacity of the composting equipment. No incoming shall be stored in excess of the permitted capacity.
(iv) Types of Waste. The application must include the sources, types, and weight or volumes of solid waste to be processed, including data on the moisture content of the waste, and information concerning special environmental pollution or handling problems that may be created by the solid waste.
(v) Air Quality. The facility shall be designed in such a manner as to meet any air quality standards of the Division.
(vi) Wastewater. Any wastewater generated by the facility shall be discharged to a wastewater treatment system and, before final release, shall be treated in a manner approved by the Division.
(vii) Fire Protection. Facility design shall provided for fire control equipment placed near the storage and charging area and elsewhere as needed, and additional fire fighting equipment shall be made available for emergencies.
(viii) Disposal of Surplus Compost. Any composted material not sold or otherwise beneficially reused must be disposed in a manner approved by the Division.
2. Performance Standards: all persons owning and/or operating composting facilities shall comply with the following requirements:
(i) Supervision. Operation and management of the facility shall be under the supervision and control of a responsible operator properly trained in the operation of such facilities at all times during operation. This operator shall be present at all times during operation of this facility.
(ii) Compost. The compost resulting from composting operations shall be nonpathogenic, free of offensive odors, biologically and chemically stable, and free of injurious components or particles and able to sustain plant growth. Rejects generated by the composting process shall be disposed of in accordance with these rules.
(iii) Information Posted. Signs shall be posted at the entrance to the facility indicating the days and hours of operation. Access to the facility shall be limited to those times when authorized personnel are on duty.
(iv) Cleanliness and Sanitation. Composting facilities shall be maintained in a clean and sanitary condition. Solid waste shall be confined to the unloading area, which shall be maintained free of dust. Accumulations of putrescible materials and rubbish shall be controlled in a manner so as to minimize odors and prevent infestation by insects or rodents. Insect and rodent control measures shall be applied as needed. Sanitary facilities shall be provided for employees and shall be kept clean and in good repair.
Authority O.C.G.A. Secs. 12-8-20 et seq., 12-8-23. History. Original Rule entitled "Asbestos Containing Waste" was F. Jun. 9, 1989; eff. Jun. 29, 1989. Repealed: New Rule entitled "Composting" adopted. F. Sept. 4, 1991; eff. Sept. 24, 1991. Amended: F. Jun. 7, 1993; eff. Jun. 27, 1993.

"Waste recycling" means reusing waste materials and extracting materials from a waste stream.

"Waste reduction" means reducing the amount or type of waste generated.

"Water quality standard" means a standard set for maximum allowable contamination in surface waters.

"Wetlands" means those areas that are defined in 40 CFR section 232.2(r). It includes those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support a prevalence of vegetative or aquatic life that requires saturated or seasonally saturated soil conditions for growth and reproduction. Wetlands generally include swamps, marshes, bogs, estuaries, and similar areas.

"White goods" means electrical and mechanical appliances made primarily of metal parts such as refrigerators, clothes washers, and dryers. Appliances of less than three cubic feet in volume before crushing shall not be included in this definition. [Eff JAN 13 1994] (Auth: HRS §§321-11, 342G-3, 342G-13, 342H-2, 342H-3, 342H-18)

§11-58.1-04 Permit systems. (a) Requirement. It shall be unlawful for any person to establish, modify, or operate any solid waste management facility or a part thereof or any extension or addition thereto without a permit issued in accordance with this chapter, Hawaii Revised Statutes, chapter 342H, and the integrated solid waste management plan for the State of Hawaii.

(b) Exemptions. The following are exempted from the requirements of subsection (a). But these exemptions do not apply to facilities regulated by 40 CFR 258.

(1) A single family or duplex residential property reusing by composting only green or vegetative solid wastes generated on its premises.

(2) A solid waste disposal facility on which the agricultural solid waste from the operation or from its products processing facility is disposed. This exemption does not include equipment and materials such as pesticides and fertilizers used in the operation of the farm. It also excludes land not used for agricultural purposes.

(3) A landfill site which is used only by the owner or

person in control of the premises to landfill less than one hundred fifty tons per year of soil, rock, concrete, or other nondecomposable and/or uncontaminated inert materials generated on the site.

(4) Incinerator facilities having a total rated capacity of less than one ton per hour.

(5) Minor sources as determined by the director.

(c) Application for permit.

(1) Application for a permit shall be completed on forms furnished by the director and shall be accompanied by the following for approval:

(A) Detailed plans and specifications for the facility.

(B) Certification of compliance with local ordinances and zoning requirements including the recording of its disposal facility with the bureau of conveyances.

(C) An operations report detailing the proposed method of operation, population, and area to be served, the characteristics, quantity, and source of material to be processed, the use and distribution of processed materials, method of processed residue disposal, emergency operating procedures, and the type and amount of equipment to be provided and the proposed ultimate use of the land.

(D) Other specific requirements as stated for each facility.

(2) Each application shall contain the original signature of the owner and applicant and shall constitute an acknowledgement that the applicant will assume responsibility for the construction or modification and operation of the facility in accordance with these rules and regulations. If the applicant is a partnership or group other than a corporation or a county, the application shall be made by one individual who is a member of the group. If the applicant is a corporation or a county, the application shall be made by an officer of the corporation, general manager of the facility, or an authorized representative of the county.

(3) The failure of the director to act on a complete

application for the issuance of a permit or an application by a permit holder for the modification or renewal thereof within one hundred eighty days of the receipt of such application, except for all federally delegated permit programs and federally approved programs, shall be deemed a grant of such application; provided that the applicant acts consistently with the application and all plans, specifications, and other information submitted as a part thereof and shall notify the department a minimum of fifteen days before the start up of operation.

(4) The director shall evaluate the applicant's response to the department's request for more information and shall notify the applicant in writing of the director's final approval or intent to deny the application. No application for a permit shall be denied unless the applicant has had an opportunity for a hearing by the director in accordance with chapter 91, Hawaii Revised Statutes.

(5) The director shall approve an application for a permit if the application and the supporting information clearly show that the issuance thereof is in the public interest and that the solid waste facility is designed, built, and equipped in accordance with the best practicable technology so as to operate without causing a violation of applicable rules and regulations.

(6) The director issues a permit conditioned upon compliance with established requirements.

(A) Commencement of work under such an authority by the applicant shall be deemed as acceptance of all conditions so specified.

(B) The director may require the applicant to provide such facilities as are necessary for sampling and testing to determine the degree of pollution from the solid waste facility.

(d) Modification, suspension, or revocation. The director may, on the director's own motion or the application of any person, modify, suspend, or revoke a permit if, after affording the applicant a hearing in accordance with chapter 91, Hawaii Revised Statutes, the director determines that any condition of the permit has been violated or any rule of the department has been violated or any provision of chapter 342H, Hawaii Revised Statutes, has been violated or that such is in the public interest. Modification, suspension, or revocation of a permit

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shall become final ten days after service of notice of the final decision to modify, suspend, or revoke, on the holder of the permit.

(e) Duration, transfer and termination.

(1) Duration of permit. The director may grant a permit for any term, not exceeding five years, and upon application may renew a permit from time to time for a term not exceeding five years if such is in the public interest.

(2) Transfer of permit. A permit shall not be transferrable without the written approval of the director.

(3) Reporting termination. Within ninety days of the permanent termination of the operation of a solid waste facility, the facility's permittee shall notify the director in writing of the facility's termination of operation.

(f) Posting. A permittee shall at all times post its permit in a conspicuous place at or near the solid waste disposal facility for which the permit was issued.

(g) Falsifying or altering permit. A person shall not willfully deface, alter, forge, counterfeit, or falsify a permit.

(h) Filing fees:

(1) Every applicant for a permit shall pay a filing fee in accordance with the following fee schedule:

(A) Solid waste disposal facilities

(i) Landfills
Greater than twenty tons/day.....$1,000
Less than twenty tons/day..... 250

(ii) Incinerators
Greater than twenty tons/day..... 1,000
Less than twenty tons/day..... 250

(B) Solid waste storage, handling and processing facilities

(i) Transfer stations
Less than one hundred tons/day..... 100
Over one hundred tons/day..... 250

(ii) Recycling and materials recovery

facilities..... 50
(iii)Salvage facilities..... 50

(C) Solid waste reclamation facilities

(i) Composting..... 50
(ii) Remediation..... 250

(D) Special wastes

(i) Special wastes..... 500
(ii) Medical wastes..... 100
(iii)Foreign wastes..... 100
(iv) Other non-specific technology..... 300

(E) Others

(i) Permit by rule..... 25
(To be submitted with the letter of notification)

This filing fee shall be submitted with the application and shall not be refunded nor applied to any subsequent application following final action of cancellation or denial of an application.

(2) Fees shall be made payable to the State of Hawaii.

(3) A request for a duplicate permit shall be made in writing to the director within ten days after the destruction, loss, or defacement of a permit. A fee of $50 shall be charged and submitted with the request.

(i) Permit by rule for certain solid waste handling and disposal facilities of limited impact.

(1) Permit by rule: Notwithstanding any other provision of these rules, the convenience centers, composting

facilities handling not more than three thousand tons per year of green wastes, clearing and grubbing landfills, certain agricultural landfills, and recycling drop-off facilities shall be deemed to have a solid waste handling and disposal permit if the following conditions are met:

(A) Notification. At least thirty days prior to commencing solid waste handling activities which are covered under a permit by rule, written

notification of such activity must be made to the director. Written notification shall be made on such forms as are provided by the director. Persons failing to notify the director of such activities shall be deemed to be operating without a permit.

(B) General conditions of every facility.

(i) No regulated hazardous waste in accordance with 40 CFR Part 261 may be collected, transported, or disposed at any of the facilities.

(ii) Nuisance control. Suitable means shall be employed to prevent solid wastes from scattering; control of litter, odors and vectors such as rodents and insects.

(iii) Suitable means shall be provided to prevent and control fires, including an emergency response plan when appropriate.

(iv) It is the responsibility of the owner and/or operator to comply with all the local rules, regulations, and ordinances, and the director may add additional conditions deemed appropriate.

(v) Each facility shall be supervised, secured, and have a permanent sign identifying the facility, hours and days of operation, materials accepted or not accepted, the owner and/or operator, a person to contact, and other pertinent information.

(vi) An annual report shall be prepared and submitted to the director.

(C) Convenience centers.

(i) Only household and/or residential solid waste will be accepted.

(ii) Car batteries and waste oil may be collected at the convenience centers but must be collected and stored in a safe and orderly manner.

(D) Green wastes (landscape waste) composting facilities.

(i) Composting facilities accepting only green waste, less than three thousand tons per year, are permitted by rule unless exempted.

(ii) The finished compost must be sufficiently stable that it can be stored or applied on land without producing a nuisance.

(iii) An annual report shall be prepared and submitted to the department, reporting the tonnage of green waste accepted, the composted tonnage produced, and residual disposed.

(iv) The department reserves the right to add additional requirements.

(E) ~~Land clearing, grubbing, and certain agricultural landfills and inert waste landfills.~~

~~(i) All persons exempted under section 11-58.1-4(b)(3) and landfilling more than one hundred and fifty tons per year shall be permitted by rule.~~

~~(ii) Only waste that will not or is not likely to produce leachate of environmental concerns shall be disposed of in the landfill. Acceptable materials for disposal in the land clearing, grubbing, and certain agricultural landfill are earth and earth-like products, and land clearing debris such as stumps, limbs and leaves. Acceptable materials for disposal in the inert waste landfill are earth and earth-like products, concrete, cured asphalt, rocks, and bricks.~~

~~(iii) Materials placed in the landfill shall be generated on site and spread in layers and compacted to the smallest practicable volume.~~

~~(iv) Public access to the landfills shall be limited to authorized entrances which shall be closed when the site is not in operation.~~

~~(v) The final cover shall consist of eighteen inches of earthen material to minimize~~

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and a functional description of all processing equipment to be used and the personnel to operate them.

(B) Adequate drainage. Adequate drainage to prevent standing water and to control "run-on" and "run-off" of rainwater shall be provided.

(C) Nuisance, health, and safety control. Design methods to control litter, insects, odors, and vectors. Develop a fire plan to prevent and minimize fire hazards. The salvage facility shall maintain a neat and orderly appearance and must be screened and buffered to minimize nuisances to neighboring properties.

(3) Operation plan. An operation plan shall be submitted and should include a brief description of the process, recoverable materials proposed to be collected, stored, and disposed at the facility. A means of weighing or measuring the incoming materials and a description of the intended method of disposal of the salvageable by-products must be included.

(4) Closure plan. As part of the application for a permit, the owner and/or operator shall develop a closure plan to ensure no adverse environmental impacts.

(c) Reporting requirements. At a minimum, an annual report shall be submitted to the director not later than thirty days after June 30 of each year. The report shall detail the volume or weight in tons of the incoming material and the salvageable material recovered and how disposed. [Eff] (Auth: HRS §§342G-13, 342G-28, 342H-3, 342H-4, 342H-31)

§11-58.1-34 to 11-58.1-40 (Reserved)

SUBCHAPTER 4--SOLID WASTE RECLAMATION FACILITIES

§11-58.1-41 Composting facilities. (a) Applicability. This section regulates the construction and operation of composting facilities for sewage sludge, green waste (yard waste), and other solid wastes.

(A) Exemption. Composting facilities processing less than

three thousand tons of green wastes (yard wastes) per year are permitted by rule.

(b) Permit requirements:

(1) Site analysis. A site analysis shall be submitted and shall include at least a site plan, description of the siting of equipment and machinery, public access, and turnaround areas. The site analysis shall include surrounding land uses and, where determined necessary by the director, describe mitigative measures taken to reduce the impact of the facility upon neighboring properties.

(2) Design requirements.

(A) Provide engineering plans and specifications for the entire composting facility, including manufacturer's performance data for the selected equipment.

(B) The composting facility must have sufficient temperature monitoring to ensure that the pathogen reduction criteria are met. For a windrow and an aerated static pile process, this may include monitoring six to eight inches below the pile surface and for an aerated static pile process, six to eight inches from the outlet of the aeration pipe. For an enclosed vessel system, this may include monitoring six to eight inches inside the vessel wall and six to eight inches from the aeration piping (when operating in the positive aeration mode). Temperature monitoring must occur, at a minimum, on a daily basis.

(C) Nuisance, health, and safety control. Design methods to control litter, insects, odors, and vectors. Develop a fire plan to prevent and minimize fire hazards. The transfer station shall maintain a neat and orderly appearance and must be screened and buffered to minimize nuisances to neighboring properties.

(D) The waste storage area and the active composting, curing, and compost storage areas must be located on surfaces capable of minimizing leachate release into the groundwater under the site and the surrounding land surface.

(E) All leachate must be collected and treated by a

method (in the engineering report) approved by the department.

(F) For composting system using only sewage sludge with an additive such as wood chips, the maximum contaminant concentrations of the sewage sludge shall meet the applicable standards in 40 CFR Part 503. Since other contaminants may be present in the sewage sludge as indicated by discharge monitoring and other industrial pre-treatment requirements; the department, on a case specific basis, may determine the maximum allowable concentrations of these contaminants in the sewage sludge.

(G) Adequate drainage. Adequate drainage to prevent standing water and to control "run-on" and "run-off" of rainwater shall be provided.

(3) Operation plan.

(A) Provide a description of the type and size of the facility, detention times for handling and processing the material, a process flow diagram of the entire process, and all the major equipment required. Include in the report monitoring information, such as the locations of all the temperature monitoring points and their frequency of reading.

(B) Provide a detailed description of the source, quality and quantity of the solid waste to be composted, including the source, quality, and expected quantity of any bulking agent to be used. If sewage sludge is to be composted, data on the material must be submitted.

(C) The compost from composting operations shall be nonpathogenic, free of offensive odors, biologically and chemically stable, and free of injurious components or particles, and able to sustain plant growth. Rejects generated by the composting process shall be disposed of in accordance with these rules.

(D) Solid waste that possess a pathogen concern, shall be composted and meet the criteria for reducing pathogens. Three acceptable methods are:

(i) Using the windrow composting method, the solid waste is maintained under aerobic conditions

during the composting process. A minimum of five turnings is required during a period of fifteen consecutive days with the temperature of the mixture being fifty-five degrees Celsius or greater within six to eight inches below the surface of the pile.

(ii) Using the aerated static pile composting method, the compost pile must be insulated and a temperature of not less than fifty-five degrees Celsius or greater must be maintained throughout the compost pile for at least three consecutive days.

(iii) Using the enclosed vessel composting method, the mixture must be maintained at a temperature of not less than fifty-five degrees Celsius or greater throughout the mixture for at least three consecutive days.

(iv) Other methods may be submitted to the director and they will be approved on a case-by-case basis.

(E) Provide a description of the ultimate use for the finished compost and the method of removal from the site. Include a plan for disposal of the finished compost that cannot be used.

(4) Closure plan. As part of the application for a permit, the owner and/or operator shall develop a closure plan to ensure no adverse environmental impacts.

(c) Reporting requirements. At a minimum, an annual report shall be submitted to the department, not later than thirty days after June 30 of each year. The report must include:

(A) The type and quantity, by weight or volume after primary processing, of solid waste received by the facility.

(B) The quantity, by weight or volume, of compost produced and removed from the facility.

(C) A summary of monitoring done during the operation. [Eff JAN 13 1994] (Auth: HRS §§342G-13, 342G-28, 342H-3, 342H-4, 342H-31)

§11-58.1-41

§11-58.1-42 Remediation facilities. (a) Applicability. This subchapter regulates the construction and operation of off-site remedial facilities. It will include, but not be limited to facilities utilizing the physical, chemical, and biological conversion processes in the recovery of waste materials. Each process will use the best practicable technology and must be in the best interest of the public. Facilities developed for a one-time operation are exempt from these regulations.

(b) Permit requirements.

(1) Site analysis. A site plan and analysis shall be submitted with the application. The analysis shall include a brief description of the area, the location of any equipment and machinery, surrounding land uses, public access, and where determined by the director, a description of mitigative measures taken to reduce the impact of facility upon neighboring properties.

(2) Design requirements.

(A) Unless specified by the director, the area on which the material is to be placed shall be impermeable to prevent subsurface soil and potential ground water contamination with a system to collect leachate and runoff. If a liner is used it should be of sufficient thickness and strength to withstand stresses imposed by vehicles and the material itself.

(B) Equipment. A description of the overall operation and a functional description of all processing equipment to be used in the remediation process and the personnel trained to operate them.

(C) Adequate drainage. Adequate drainage to prevent standing water and to control "run-on" and "run-off" of rainwater shall be provided.

(D) Nuisance, health, and safety control. Design methods to control litter, insects, odors, and vectors. Develop a fire plan to prevent and minimize fire hazards. The facility shall maintain a neat and orderly appearance and must be screened and buffered to minimize nuisances to neighboring properties.

(3) Operation plan. The operation plan shall include a description of the process and the equipment necessary, by-products produced, and the means for their disposal.

(4) Closure plan. As part of the application for a permit, the owner and/or operator shall develop a closure and post-closure plan to ensure no adverse environmental impacts.

(c) Reporting requirement. At a minimum, an annual report shall be submitted to the director not later than thirty days after June 30 of each year. The report shall detail the volume or weight in tons of the incoming material and the material recovered from the process. [Eff JAN 13 1994] (Auth: HRS §§342G-2, 342G-3, 342G-13, 342G-14, 342G28, 342H-3, 342H-4, 342H-31)

§§11-58.1-43 to 11-58.1-50 (Reserved)

~~SUBCHAPTER 5 -- SPECIAL WASTE MANAGEMENT~~

~~§11-58.1-51~~ Special waste landfills. ~~(a) Applicability. Solid wastes which do not fall under the categories contained in subchapter 3 or 4 are termed special wastes and the landfill shall comply to these requirements (when disposal is by landfill). A permit will be required for the landfill.~~

~~(b) Permit requirements. Each special waste landfill permit application will be evaluated on a case by case basis and shall include, but not limited to the following:~~

~~(1) Site analysis. A site plan and analysis of the facility which illustrates the location of all structures including storage areas on the site; offices, maintenance areas, planned areas for expansion, and property boundaries. Including in the analysis will be a description of neighboring land uses and measures taken to mitigate interference with those existing or anticipated uses.~~

~~(2) Design requirements.~~

~~(A) Adequate design of the landfill depending on the type of waste to be disposed.~~

~~(B) Adequate drainage to prevent standing water and to control "run-on" and "run-off" of rainwater shall be provided.~~

Table of Contents

58.01.06 - Solid Waste Management Rules

IDAPA 58
TITLE 01
CHAPTER 06

58.01.06 - SOLID WASTE MANAGEMENT RULES

000. LEGAL AUTHORITY.
Sections 39-105 and 39-107, Idaho Code, authorize the Board of Environmental Quality to adopt rules and administer programs to protect surface water quality, ground water quality and air quality, and to regulate solid waste treatment or disposal and the licensure and certification requirements pertinent thereto. Section 39-7408C, Idaho Code, authorizes the Board of Environmental Quality to establish by rule municipal solid waste commercial siting license fees. (4-2-03)

001. TITLE AND SCOPE.

01. Title. These rules shall be cited as Rules of the Department of Environmental Quality IDAPA 58.01.06, "Solid Waste Management Rules." (4-2-03)

02. Scope. These rules establish requirements applicable to all solid waste and solid waste management facilities in Idaho, except as specifically provided in Subsections 001.03 and 001.04. (4-2-03)

03. Wastes Not Regulated Under These Rules. (4-2-03)

a. These rules do not apply to the following solid wastes: (4-2-03)

i. Liquid wastes when the discharge or potential discharge of the liquid waste is regulated under a federal, state or local water pollution discharge or wastewater land application permit, including management of any solids if management of the solids are addressed in a permit term or condition; (4-2-03)

ii. Hazardous wastes regulated by the Hazardous Waste Management Act, Chapter 44, Title 39, Idaho Code, and the rules adopted thereunder; (4-2-03)

iii. Polychlorinated biphenyl (PCB) waste regulated under the Toxic Substance Control Act, 15 U.S.C. 2601, et seq., with the exception that the PCB Waste Disposal Act, Chapter 62, Title 39, Idaho Code, and these rules shall apply to PCB waste authorized by federal law to be disposed of at a nonhazardous waste landfill that is permitted, licensed or registered under Idaho Law; (4-2-03)

iv. Slash or slashing areas resulting from the harvesting of timber and the disposal of which is managed pursuant to Chapter 1, Title 38, Idaho Code or log landings or sorting sites; (4-2-03)

v. Wastes used, managed, stored and disposed in accordance with The Wood and Mill Yard Debris Technical Guidance Manual, as amended, published by the Department and developed pursuant to Sections 39-171 through 39-174, Idaho Code; (4-2-03)

vi. Clean soils and clean dredge spoils as regulated under Section 404 of the federal Clean Water Act provided that they are not hazardous wastes regulated by the Hazardous Waste Management Act, Chapter 44, Title 39, Idaho Code and the rules adopted thereunder; (4-2-03)

vii. Septage taken to a sewage treatment plant permitted by either the U.S. Environmental Protection Agency or the Department pursuant to IDAPA 58.01.15, "Rules Governing the Cleaning of Septic Tanks"; (4-2-03)

viii. All radioactive waste and radioactive materials regulated pursuant to Section 39-4405(9), Idaho Code and rules adopted thereunder and radioactive waste and materials regulated under the authority of the Atomic Energy Act of 1954, as amended.; (4-2-03)

ix. Petroleum Contaminated Soils (PCS) from a leaking petroleum storage tank system managed as a one (1) time remediation pursuant to IDAPA 58.01.02, "Water Quality Standards"; or (4-2-03)

x. Asbestos as regulated by the Toxic Substances Control Act, as amended, 15 U.S.C. Sections 2601,

et seq., or asbestos as regulated by the Clean Air Act, as amended, 42 U.S.C. Section 7412. (4-2-03)

xi. Nonhazardous wastes disposed in a permitted hazardous waste treatment, storage and disposal unit regulated by the Hazardous Waste Management Act, Chapter 44, Title 39, Idaho Code, and rules adopted thereunder; (4-2-03)

xii. Waste otherwise regulated under Department authorities. (4-2-03)

b. These rules do not apply to the following solid waste unless these wastes are mixed with more than incidental quantities of regulated waste; (4-2-03)

i. Inert wastes; (4-2-03)

ii. Manures and crop (plant) residues ultimately returned to the soils at agronomic rates; (4-2-03)

iii. Any agricultural solid waste which is managed and regulated pursuant to rules adopted by the Idaho Department of Agriculture. The Department reserves the right to use existing authorities to regulate agricultural waste that impacts human health or the environment; (4-2-03)

iv. Overburden, waste dumps, low-grade stockpiles, tailings and other materials uniquely associated with mineral extraction, beneficiation or processing operations; (4-2-03)

v. Slag from the production of elemental phosphorus; (4-2-03)

vi. Phospho-gypsum from the production of phosphate fertilizers, which includes the production of phosphoric acid; and (4-2-03)

vii. Wood waste used for ornamental, animal bedding, mulch and plant bedding, or road building purposes. (4-2-03)

04. Solid Waste Management Facilities Not Regulated Under These Rules. These Rules do not apply to the following solid waste management facilities: (4-2-03)

a. Solid waste management facilities accepting only solid waste excluded by Subsection 001.03; (4-2-03)

b. Recycling centers; or (4-2-03)

c. Backyard composting sites. (4-2-03)

d. Facilities which cease accepting solid waste prior to April 26, 2002 shall be required to only comply with applicable cover, seeding, grading and closure requirements of the former Solid Waste Management Rules and Standards, as follows: (4-2-03)

i. Grading. The entire site, including the landfill surfaces, shall be graded and provided with drainage facilities to minimize runoff onto and into the sanitary landfill to prevent erosion or washing and to prevent the collection of standing water. The grading of the final surface of the fill area must provide a slope of not less than one percent (1%), but not exceeding fifteen percent (15%), except as approved by the Department or as required in Section 39-7415(3), Idaho Code. (4-2-03)

ii. Seeding. Seeding to promote stabilization of the final soil cover shall be done as soon as weather permits seed bed preparation and planting operations and when seasonal conditions are suitable for the type of vegetation to be used. Re-seeding is mandatory until adequate vegetative cover is established to prevent erosion. (4-2-03)

iii. Site Closure. An inspection of the entire site of the completed sanitary landfill, or other solid waste management site that is to be vacated, shall be made by a representative of the District before earth moving

equipment or other equipment vital to disposal of solid waste is removed from the site or used on other projects. Any necessary corrective work shall be performed before the operation is accepted as completed. (4-2-03)

(1) An official notice of closure of the site shall be sent to the District at the time the site is closed. (4-2-03)

(2) Arrangements shall be made for the repair of all cracked, eroded, and uneven areas in the final cover during the year following completion of fill operations. (4-2-03)

002. WRITTEN INTERPRETATIONS.
The Department of Environmental Quality may have written statements that pertain to the interpretation of the rules in this chapter. Any such written statements shall be available for review at the Department of Environmental Quality, 1410 N. Hilton, Boise, ID 83706-1255. (4-2-03)

003. ADMINISTRATIVE APPEALS.
Persons may be entitled to appeal agency actions authorized under this chapter pursuant to IDAPA 58.01.23, "Rules of Administrative Procedure Before the Board of Environmental Quality." (4-2-03)

004. APPLICABILITY.
These Rules apply to all solid waste unless excluded by Subsection 001.03 and to all existing, new or modified solid waste management sites in Idaho identified in Subsection 004.01 and 004.02, unless excluded by Subsection 001.04. Compliance with these Rules shall not relieve owners and operators from the obligation to comply with other applicable state or federal laws, including but not limited to the IDAPA 58.01.02, "Water Quality Standards," IDAPA 58.01.11, "Ground Water Quality Rule," and IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

01. Solid Waste Facility Other Than Municipal Solid Waste Landfills (MSWLF) Applicability. Sections 000 through 060 and Section 999 apply to all solid waste facilities other than MSWLF, as specified therein. (4-2-03)

02. Municipal Solid Waste Landfill Applicability. Sections 000 through 007, and Sections 994 through 999 apply to all MSWLFs, as specified therein. (4-2-03)

005. DEFINITIONS.

01. Active Portion. That part of a new or existing facility or unit where waste had been, or may be, disposed of, treated, or otherwise managed, and that has not been closed in accordance with applicable rules.(4-2-03)

02. Backyard Composting. Composting operations used only by the owner or person in control of a residential dwelling unit to process garbage and yard waste generated at that dwelling unit. (4-2-03)

03. Beneficial Use. Various uses of ground water in Idaho including, but not limited to, domestic water supplies, industrial water supplies, industrial water supplies and agricultural water supplies. A beneficial use is defined as actual current and projected future uses of ground water. (4-2-03)

04. Commercial Solid Waste Facility. A MSWLF owned and operated as an enterprise conducted with the intent of making a profit by any individual, association, firm, or partnership for the disposal of solid waste, but excluding a MSWLF owned or operated by a political subdivision, state or federal agency or, municipality or a MSWLF owned or operated by any individual, association, firm, or partnership exclusively for the disposal of solid waste generated by such individual, association, firm, or partnership. (4-2-03)

05. Composting Facility. See definition of Processing Facility. (4-2-03)

06. Conditionally Exempt Small Quantity Generator (CESQG) Hazardous Waste. As defined in 40 CFR Part 261.5. (4-2-03)

07. Conditionally Exempt Small Quantity Generator (CESQG) Management Facility. A facility

or portion thereof where household hazardous waste or CESQG wastes are transferred from a vehicle or container and subsequently transported to another facility. A CESQG management facility does not include temporary drop off locations or other facilities where individuals or businesses are authorized to store waste for ultimate collection and disposal. (4-2-03)

08. Contamination. The introduction of a substance into the surface or ground water causing: (4-2-03)

a. At or beyond the point of compliance, the concentration of that substance in ground water to result in significant degredation, as determined pursuant to Section 400.02.b of the Idaho Ground Water Rule, or in an exceedance of the maximum contamination level (MCL) specified in the Idaho Ground Water Rule; (4-2-03)

b. The concentration of that substance in surface water exceeds a numerical criteria or fails to protect designated beneficial uses specified in the Idaho Water Quality Standards, IDAPA 58.01.02; (4-2-03)

c. A statistically significant increase in the concentration of that substance in the ground water at or beyond the point of compliance, or in surface water, where the existing concentration of that substance exceeds the contamination level specified in Subsections 005.08.a. or 005.08.b. of this rule; or (4-2-03)

d. A statistically significant increase in the concentration of that substance in ground water at the point of compliance, or in surface water, above background of a substance which; (4-2-03)

i. Is not specified in Subsections 005.08.a. or 005.08.b. of this rule; and (4-2-03)

ii. Is a result of the disposal of solid waste; and (4-2-03)

iii. Has been determined by the department to present a substantial risk to human health or the environment in the concentrations found in the ground water at the point of compliance, or in surface water. (4-2-03)

09. Degradation. The lowering of ground water quality as measured in a statistically significant and reproducible manner. (4-2-03)

10. Department. The Idaho Department of Environmental Quality. (4-2-03)

11. Director. The Director of the Idaho Department of Environmental Quality. (4-2-03)

12. Disposal. Discharge, deposit, injection, dumping, spilling, leaking, leaching, migration or placing of any solid waste into or on any land or water so that such solid waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground water. (4-2-03)

13. Existing Facility. A facility operating and receiving solid waste on or before April 26, 2002. (4-2-03)

14. Facility. Any area used for any solid waste management activity, including but not limited to: (4-2-03)

a. Storage; (4-2-03)

b. Transfer; (4-2-03)

c. Processing; (4-2-03)

d. Separation; (4-2-03)

e. Incineration; (4-2-03)

f. Treatment; (4-2-03)

g. Salvaging; or (4-2-03)

h. Disposal of solid waste. (4-2-03)

15. Garbage. Any waste consisting of putresible animal and vegetable materials resulting from the handling, preparation, cooking and consumption of food, including wastes materials from households, markets, storage facilities, handling and sale of produce and other food products. (4-2-03)

16. Ground Water. Any water of the state that occurs beneath the surface of the earth in a saturated geological formation of rock or soil. (4-2-03)

17. Household Waste. Any solid waste, including kitchen wastes, trash and sanitary waste in septic tanks, derived from households, including single and multiple residences, hotels and motels, bunkhouses, ranger stations, crew quarters, campgrounds, picnic grounds and day use recreation areas. (4-2-03)

18. Incinerator. Any source consisting of a furnace and all appurtenances thereto designed for the destruction of solid waste by burning. "Open Burning" is not considered incineration. (4-2-03)

19. Inert Waste. Noncombustible, nonhazardous, and non-putresible solid wastes that are likely to retain their physical and chemical structure and have a de minimis potential to generate leachate under expected conditions of disposal, which includes resistance to biological attack. "Inert waste" includes, but is not limited to, rock, concrete, cured asphaltic concrete, masonry block, brick, gravel, dirt, inert coal combustion by-products, inert precipitated calcium carbonate and inert component mixture of wood or mill yard debris. (4-2-03)

20. Landfill. An area of land or an excavation in which wastes are placed for permanent disposal, and that is not a land application unit, surface impoundment, injection well or waste pile, as those terms are defined under 40 CFR 257.2. (4-2-03)

21. Leachate. A liquid that has passed through or emerged from waste and contains soluble, suspended, or miscible materials removed from such waste. (4-2-03)

22. Lift. A vertical rise of compacted solid waste that is complete when it is no longer practical to add additional height without the addition of a cover layer to provide structural stability. (4-2-03)

23. Modification. Any change in the physical characteristics, waste types managed, method of operation, or lateral expansion beyond the boundaries of a site. The following shall not be considered a modification: (4-2-03)

a. Repair and replacement of existing equipment; (4-2-03)

b. Increase in production rate that does not exceed the Tier level criteria or approved facility capacity; (4-2-03)

c. An increase in hours of operation if more restrictive hours of operation are not specified in an approved operating plan; and (4-2-03)

d. Acquisition of property that is not to be used for the processing or disposal of solid waste. (4-2-03)

24. Municipal Solid Waste Landfill Unit (MSWLF). As regulated under Chapter 74, Title 39, Idaho Code, a discrete area of land or an excavation that receives household waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under 40 CFR 257.2. A MSWLF unit also may receive other types of RCRA subtitle D wastes, such as commercial solid waste, nonhazardous sludge, conditionally exempt small quantity generator waste and industrial solid waste. Such a landfill may be publicly or privately owned. A MSWLF unit may be a new MSWLF unit, an existing MSWLF unit or a lateral expansion. (4-2-03)

25. Non-Municipal Solid Waste (NMSW). A solid waste that is: (4-2-03)

a. Not mixed with household waste; or (4-2-03)

b. Not excluded from these rules by Subsection 001.03. (4-2-03)

26. Non-Municipal Solid Waste Landfill (NMSWLF). A landfill that accepts only non-municipal solid waste. (4-2-03)

27. Open Burning. The combustion of solid waste without: (4-2-03)

a. Control of combustion air to maintain adequate temperature for efficient combustion; (4-2-03)

b. Containment of the combustion reaction in an enclosed device so as to provide sufficient residence time and mixing for complete combustion; and (4-2-03)

c. Control of the emission of the combustion products. (4-2-03)

28. Operator. The person(s) responsible for the overall operation of all or part of a site or facility. (4-2-03)

29. Owner. The person(s) who owns land or a portion of the land on which a site or facility is located. (4-2-03)

30. Person. Any individual, association, partnership, firm, joint stock company, trust, political subdivision, public or private corporation, state or federal government department, agency, or instrumentality, municipality, industry, or any other legal entity which is recognized by law as the subject of rights and duties. (4-2-03)

31. Point of Compliance. A vertical surface located no more than one hundred fifty (150) yards hydraulically down gradient from the active portion of a facility or site, located at the facility boundary down gradient of the land area, or located at the point of diversion of an identified beneficial use with in the site, whichever is the smallest distance from the active portion. (4-2-03)

32. Processing Facility. A facility that uses biological or chemical decomposition to prepare solid waste for reuse, excluding waste handling at transfer stations or recycling centers. (4-2-03)

33. Projected Waste Volume. The total actual or potential solid waste volume measured in tons per day, cubic yards per day, or an equivalent measurement, proposed to be received or processed at a solid waste facility. (4-2-03)

34. Pumpable Waste. Wastes, including non-domestic septage, sludge, wastewater and non-municipal solid wastes, which are pumped from a holding area or container into a watertight tank truck or equivalent and transported for processing or disposal. (4-2-03)

35. Qualified Professional. Qualified professional means a licensed professional geologist or licensed professional engineer, as appropriate, holding current professional registration in good standing and in compliance with applicable provisions of Chapter 12, Title 54, Idaho Code. (4-2-03)

36. Recyclables. Used, end, or waste products with useful properties that can be reused. (4-2-03)

37. Recycling. The reclamation of solid waste and its subsequent introduction into an industrial process by which the materials are transformed into a new product in such a manner that the original identity as a product is lost. (4-2-03)

38. Recycling Center. A materials recovery facility that receives recyclables, then sorts, bales, loads, or physically alters the material and transports the commodities to markets. (4-2-03)

39. **Salvage**. The reclamation of solid waste at a disposal site. (4-2-03)

40. **Scavenge**. The unauthorized removal of materials from a facility. (4-2-03)

41. **Septage**. A semisolid consisting of settled sewage solids combined with varying amounts of water and dissolved materials generated from a septic tank system. (4-2-03)

42. **Site**. Any contiguous geographic area with one (1) or more facilities owned or operated by the same person for any of the following activities: (4-2-03)

a. Storage; (4-2-03)

b. Transfer; (4-2-03)

c. Processing; (4-2-03)

d. Separation; (4-2-03)

e. Incineration; (4-2-03)

f. Treatment; (4-2-03)

g. Salvaging; or (4-2-03)

h. Disposal of solid waste. (4-2-03)

43. **Site Size**. The sum in acres of all proposed or existing facilities. (4-2-03)

44. **Solid Waste**. Any garbage or refuse, sludge from a waste water treatment plant, water supply treatment plant, or air pollution control facility and other discarded material including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities, but does not include solid or dissolved materials in domestic sewage, or solid or dissolved material in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act, as amended (86 Stat. 880), or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended (68 Stat. 923). (4-2-03)

45. **Speculative Accumulation**. Stock piles of materials or recyclables to be processed for reuse or disposal when fifty percent (50%) of the material is not reused or disposed by the end of the following calendar year after the date of first receipt by the facility, and which may create a nuisance or public health impact. (4-2-03)

46. **Storm Water**. Accumulation of water from natural precipitation, including snow melt. (4-2-03)

47. **Surface Water**. All surface accumulations of water, natural or artificial, public or private, or parts thereof which are wholly or partially within, which flow through or border upon the state, unless such waters are an integral part of the facility's operation for storm water control and or leachate management. (4-2-03)

48. **Tipping Floor**. An area at a transfer station, processing facility, CESQG management facility or incinerator that receives and contains all waste materials. (4-2-03)

49. **Toxic Leachate or Gas**. Concentrations of leachate or gas that will cause contamination, as defined by these rules, or that will exceed standards in the IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho."

(4-2-03)

50. **Transfer Station**. A facility or portion thereof where solid wastes are transferred from a vehicle or container and subsequently transported off-site to another facility. A transfer station does not include an authorized rural drop-box or other facilities where persons are authorized to store individual waste for ultimate collection and

disposal, or any other facility that stores solid waste generated at the facility for collection and disposal off-site. A transfer station shall include waste tire collection sites as defined in Section 39-6501, Idaho Code. (4-2-03)

51. Wood or Mill Yard Debris Facility. A facility that manages exclusively, solid wood, bark, or wood fiber generated from the process of manufacturing wood products that may include ash from the burning of wood waste in amounts and in conformity with the requirements of the Wood & Mill Yard Technical Guidance Manual, components of soil, rock, or moisture. (4-2-03)

52. Yard Waste. Weeds, straw, leaves, grass clippings, brush, wood, and other natural, organic, materials typically derived from general landscape maintenance activities. (4-2-03)

006. ABBREVIATIONS.

01. BRC. Below Regulatory Concern. (4-2-03)

02. CFR. Code of Federal Regulations. (4-2-03)

03. EPA. Environmental Protection Agency. (4-2-03)

04. ISWFA. Idaho Solid Waste Facilities Act, Chapter 74, Title 39, Idaho Code. (4-2-03)

05. MSWLF. Municipal Solid Waste Land Fill. (4-2-03)

06. NMSW. Non-Municipal Solid Waste. (4-2-03)

07. NMSWLF. Non-Municipal Solid Waste Land Fill. (4-2-03)

08. PCS. Petroleum Contaminated Soils. (4-2-03)

09. RCRA. Resource Conservation and Recovery Act. (4-2-03)

10. U.S.C. United States Code. (4-2-03)

007. INCORPORATION BY REFERENCE.

01. General. Unless expressly provided otherwise, any reference in these rules to any document identified in Subsection 007.02 shall constitute the full adoption by reference, including any notes and appendices therein. The term "documents" includes codes, standards or rules which have been adopted by an agency of the state or of the United States or by any nationally recognized organization or association. (4-2-03)

02. Documents Incorporated by Reference. The following documents are incorporated by reference into these rules: (4-2-03)

a. 40 CFR 257.24(a), revised as of July 1, 2001. (4-2-03)

b. 40 CFR 257.9, revised as of July 1, 2001. (4-2-03)

03. Availability of Referenced Material. Copies of the documents incorporated by reference into these rules are available at the following locations: (4-2-03)

a. Department of Environmental Quality, 1410 N. Hilton, Boise ID 83706-1255. (4-2-03)

b. Idaho State Law Library, 451 W. State Street, P.O. Box 83720, Boise ID 83720-0051. (4-2-03)

c. U.S. Government Printing Office, Superintendent of Documents, Washington, D.C. 20402, or U.S. Government Bookstore, Room 194 Federal Bldg., 915 Second Ave., Seattle, WA 98174. (4-2-03)

008. OFFICE -- OFFICE HOURS -- MAILING ADDRESS AND STREET ADDRESS.
The state office of the Department of Environmental Quality and the office of the Board of Environmental Quality are located at 1410 N. Hilton, Boise, Idaho 83706-1255, telephone number (208) 373-0502. The office hours are 8:00 a.m. to 5:00 p.m. Monday through Friday. (4-2-03)

009. SOLID WASTE MANAGEMENT FACILITY CLASSIFICATION.

01. BRC Facilities. A facility is below regulatory concern (BRC) provided it is a processing facility that does not manage PCS or pumpable waste, and the cumulative volume of solid waste at the facility at any one (1) time is less than or equal to three hundred (300) cubic yards. (4-2-03)

02. Tier I Facilities. Tier I facilities shall comply with the requirements identified in Section 011. A facility shall be classified as a Tier I facility if the Department determines the facility is: (4-2-03)

a. A landfill that only accepts for disposal materials that are not likely to produce leachate including, but not limited to, glass, plastic, cardboard, wood, composition roofing material, roofing paper, or ceramics, and which has a total disposal capacity of less than or equal to two thousand (2000) cubic yards. (4-2-03)

b. A processing facility that only processes wastes including, but not limited to, untreated or unpainted wood, yard waste, sheet rock, clean paper products, animal manures, plant or crop residues, or garbage without meats or animal fats, and the cumulative volume of wastes at the facility at any one time is less than or equal to six hundred (600) cubic yards. (4-2-03)

c. A processing facility that only manages PCS not excluded under Subsection 001.03.a.ix. or pumpable wastes and the cumulative volume of material at the facility at any one (1) time is less than or equal to two hundred (200) cubic yards; or (4-2-03)

d. An emergency solid waste management facility that only accepts debris resulting from a natural disaster. (4-2-03)

03. Tier II Facility. Tier II facilities shall comply with the Tier II general siting, operational and closure requirements and any applicable Tier II facility specific requirements. Tier II facilities are not required to install ground water monitoring wells, leachate collection systems or liners. Facilities shall be classified as a Tier II facility if the Department determines the facility is not: (1) landfilling or disposing of CESQG hazardous waste; (2) landfilling or disposing of materials with a high human pathogenic potential; (3) managing solid waste in a manner or volume that will form toxic leachate or gas; or (4) managing solid waste in a manner or volume that is likely to pose a substantial risk to human health or the environment. A Tier II facility is one that meets the four (4) above criteria and is identified below: (4-2-03)

a. A NMSW landfill which has a total disposal capacity greater than two thousand (2000) cubic yards; or (4-2-03)

b. A processing facility or incinerator that has a cumulative volume of wastes at the facility at any one time that is greater than six hundred (600) cubic yards; or (4-2-03)

c. A processing facility that only manages PCS not excluded under Subsection 001.03.a.ix or pumpable wastes and the cumulative volume of material at the facility at any one (1) time is greater than two hundred (200) cubic yards; or (4-2-03)

d. A transfer station or CESQG waste management facility. (4-2-03)

04. Tier III Facility. Tier III facilities shall comply with the Tier III general siting, operating and closure requirements, ground water monitoring requirements, install leachate collection systems, liners, air contaminant control systems and any applicable Tier III facility specific requirements. Facilities shall be classified as a Tier III facility if the Department determines the facility is: (1) a facility landfilling or disposing of CESQG hazardous waste; (2) a facility landfilling or disposing of materials with a high human pathogenic potential; (3) a facility managing solid waste in a manner or volume that will form toxic leachate or gas; or (4) a facility managing

solid waste in a manner or volume that is likely to pose a substantial risk to human health or the environment. (4-2-03)

05. Wood or Mill Yard Debris Facilities. For the period of one (1) year after April 1, 2003, all Wood or Mill Yard Debris Facilities that are not exempt from these Rules as provided in Section 001.03 shall be regulated as Tier I Facilities. Thereafter, all Wood and Mill Yard Debris Facilities that are not exempt from these Rules as provided in Section 001.03 shall be regulated as Tier I Facilities unless, based on site-specific criteria including but not limited to site geology, site soils, groundwater characteristics, distance to surface waters, and site climatic data, the Department determines the facility is more appropriately regulated under a different tier classification. Facilities not regulated as a Tier I Facility shall be regulated as a Tier II Facility unless the Department determines the facility manages waste in a manner that will form toxic leachate or gas. (4-2-03)

06. Site Specific Classification. An owner or operator of a facility classified as a Tier I, Tier II or Tier III facility may request to be regulated pursuant to the requirements of a lower classification. An owner or operator requesting site specific classification must submit information demonstrating to the Department that, when in compliance with the requirements of a lower classification, the facility would not cause contamination, toxic leachate or gas, or concentrations of a substance that exceed standards in the IDAPA 58.01.01 "Rules for the Control of Air Pollution in Idaho." The information included in any request under this subsection shall include: (4-2-03)

a. Characterization of waste and expected quantities of waste; (4-2-03)

b. Site characterization including; (4-2-03)

i. Site geology report; (4-2-03)

ii. Site soils report; (4-2-03)

iii. Ground water report; (4-2-03)

iv. Site climatic data; (4-2-03)

c. Facility Design Plan; (4-2-03)

d. Operating Plan; and (4-2-03)

e. Closure Plan. (4-2-03)

07. General and Site Specific Classification Process. The Department's review of a request for a site specific classification shall be conducted pursuant to the process set forth in Section 032. (4-2-03)

010. BELOW REGULATORY CONCERN FACILITIES.

01. Applicable Requirements. The owner and operator of a new BRC facility shall comply with the following requirements prior to accepting waste. The owner and operator of an existing BRC facility shall comply with the following requirements within two (2) years from April 26, 2002. During the two-year period from April 26, 2002, existing facilities shall operate in compliance with their approved operating plan and 40 CFR 257.1 through 257.3: (4-2-03)

a. Prohibited Activities. The following activities are prohibited: (4-2-03)

i. Disposal in a landfill of regulated waste from any business that provides health care, support to health care businesses, or medical diagnostic services that has not been decontaminated. "Regulated waste" and "decontaminated" for the purpose of Section 010 shall have the same meaning as defined at 29 CFR 1910.1030; (4-2-03)

ii. Speculative accumulation, unless otherwise approved by the Department in writing; and (4-2-03)

iii. Disposal of radioactive waste except in a facility regulated pursuant to Section 39-4405(9), Idaho Code, and rules adopted thereunder or a facility regulated under the authority of The Atomic Energy Act of 1954, as amended. (4-2-03)

b. Nuisance Control. The owner and operator shall control nuisances, including but not limited to: (4-2-03)

i. Disease or discomfort. Operations at any facility shall not provide sustenance to rodents or insects that cause human disease or discomfort; (4-2-03)

ii. Vector. Vector control procedures shall prevent or control vectors that may cause health hazards or nuisances; (4-2-03)

iii. Odor. The facility shall be operated to control malodorous gases; and (4-2-03)

iv. Litter. Effective measures shall be taken to minimize the loss of debris from the facility. Debris blown from or within the facility shall be collected and properly disposed to prevent objectionable accumulations. (4-2-03)

c. Bird Hazards to Aircraft. No facility may handle putresible wastes in such a manner that may attract birds and increase the likelihood of bird/aircraft collisions. Facilities that are located within ten thousand (10,000) feet of any airport runway used by turbojet aircraft, or within five thousand (5,000) feet of any airport used by only piston-type aircraft shall operate the facility in such a manner that birds are not a hazard to aircraft; and (4-2-03)

d. Open Burning and Fires. Open burning is prohibited at facilities except as authorized by these rules and IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

i. No open burning shall be conducted during an air pollution episode, declared in accordance with IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

ii. Open burning is authorized only if it is infrequent and the materials are agricultural wastes, silviculture wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations. Materials burned shall not include garbage, dead animals, asphalt, petroleum products, paints, tires or other rubber products, plastics, paper (other than that necessary to start the fire), cardboard, treated wood, construction debris, metal, pathogenic wastes, hazardous wastes, or any other substance (other than natural vegetation) that when burned releases toxic emissions, dense smoke or strong odors. (4-2-03)

iii. Open burning shall be conducted pursuant to conditions set forth by the Department or local fire authority. The owner and operator of the facility shall contact the Department and the local fire authority prior to conducting open burning to report its nature and location. (4-2-03)

02. Application Content, Review and Approval Requirements. The owner and operator of a BRC facility are not required to submit an application. (4-2-03)

03. Documentation Requirements. The owner and operator shall maintain on site documentation, such as a daily log of the quantity and type of waste received or managed, that verifies the facility's BRC status. (4-2-03)

011. APPLICABLE REQUIREMENTS FOR TIER I FACILITIES.

01. Applicable Requirements. The owner and operator of a new Tier I facility shall comply with the following requirements prior to accepting waste. The owner and operator of an existing Tier I facility shall comply with the following requirements within two (2) years from April 26, 2002. During the two-year period from April 26, 2002, existing facilities shall operate in compliance with their approved operating plan, if any, and 40 CFR 257.1 through 257.3: (4-2-03)

a. Prohibited Activities. The following activities are prohibited: (4-2-03)

i. Disposal in a landfill of regulated waste from any business that provides health care, support to health care businesses, or medical diagnostic services that has not been decontaminated. "Regulated waste" and "decontaminated" for the purpose of Section 011 shall have the same meaning as defined at 29 CFR 1910.1030; (4-2-03)

ii. Speculative accumulation, unless otherwise approved by the Department in writing; and (4-2-03)

iii. Disposal of radioactive waste except in a facility regulated pursuant to Section 39-4405(9), Idaho Code, and rules adopted thereunder or a facility regulated under the authority of The Atomic Energy Act of 1954, as amended. (4-2-03)

b. Signs. Facilities open to the general public shall clearly post visible and legible signs at each entrance to the facility. The signs shall specify at a minimum the name of the facility, the hours of operation, the waste accepted at the facility and an emergency phone number. (4-2-03)

c. Nuisance Control. The owner and operator shall control nuisances, including but not limited to: (4-2-03)

i. Disease or Discomfort. Operations at any facility shall not provide sustenance to rodents or insects that cause human disease or discomfort; (4-2-03)

ii. Vector. Vector control procedures shall prevent or control vectors that may cause health hazards or nuisances; (4-2-03)

iii. Odor. The facility shall be operated to control malodorous gases; and (4-2-03)

iv. Litter. Effective measures shall be taken to minimize the loss of debris from the facility. Debris blown from or within the facility shall be collected and properly disposed to prevent objectionable accumulations. (4-2-03)

d. Facility Access. Unauthorized vehicles and persons shall be prohibited access to the facility. A facility open to the public shall accept waste only when an attendant is on duty. The facility shall be fenced or otherwise blocked to access when an attendant is not on duty. The owner and operator shall maintain the fencing or other access controls for a period of ten (10) years after closure, or another timeframe approved in writing by the Department. (4-2-03)

e. Bird Hazards to Aircraft. No facility may handle putresible wastes in such a manner that may attract birds and increase the likelihood of bird/aircraft collisions. Facilities that are located within ten thousand (10,000) feet of any airport runway used by turbojet aircraft, or within five thousand (5,000) feet of any airport used by only piston-type aircraft shall operate the facility in such a manner that birds are not a hazard to aircraft. (4-2-03)

f. Open Burning and Fires. Open burning is prohibited at facilities except as authorized by these rules and IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

i. No open burning shall be conducted during an air pollution episode, declared in accordance with IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

ii. Open burning is authorized only if it is infrequent and the materials are agricultural wastes, silviculture wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations. Materials burned shall not include garbage, dead animals, asphalt, petroleum products, paints, tires or other rubber products, plastics, paper (other than that necessary to start the fire), cardboard, treated wood, construction debris, metal, pathogenic wastes, hazardous wastes, or any other substance (other than natural vegetation) that when burned releases toxic emissions, dense smoke or strong odors. (4-2-03)

iii. Open burning shall be conducted pursuant to conditions set forth by the Department or local fire

authority. The owner and operator of the facility shall contact the Department and the local fire authority prior to conducting open burning to report its nature and location. (4-2-03)

g. Storm Water Run-On/Run-Off Controls. Implement sufficient storm water management provisions, which may incorporate a NPDES storm water pollution prevention plan, to prevent contamination of surface or ground water and prevent the spread and impact of contamination beyond the boundary of the facility. (4-2-03)

h. Variance Request. An owner and operator may submit a written variance request for a variance from the requirements listed in Section 011. The owner and operator must demonstrate to the Department that the variance is at least as protective of human health and the environment as the requirements listed in Section 011. (4-2-03)

02. Application Content, Review and Approval Requirements. The owner and operator of a Tier I facility shall submit notification to the Department prior to operating. The notice shall include; the owners name, operators name, physical location of site, mailing address, facility phone number and type of solid waste management facility. (4-2-03)

03. Documentation Requirements. The owner and operator shall maintain on site documentation, such as a daily log of the quantity and type of waste received, that verifies the facility's Tier I status. (4-2-03)

012. APPLICABLE REQUIREMENTS FOR TIER II FACILITIES.
The owner and operator of a new Tier II facility shall establish compliance with the requirements of Section 012 by obtaining Department approval of the applications required in Subsection 012.02 before beginning construction and Subsection 012.04 prior to accepting waste. The owner and operator of an existing Tier II facility shall establish compliance with the requirements of Section 012 by obtaining Department approval of the applications required in Subsection 012.04 within two (2) years from April 26, 2002, and Subsection 012.02 within five (5) years from April 26, 2002. During the two (2) year period from April 26, 2002, existing facilities shall operate in compliance with their approved operating plan, if any, and 40 CFR 257.1 through 257.3. In lieu of submitting an application, the owner and operator of existing facilities may demonstrate to the Department, compliance with Section 012 by submitting copies of existing permits and other approvals that establish compliance with the applicable siting, design, operating, closure, and post-closure requirements of Section 012 and Subsection 032.01. The owner and operator of a Tier II facility shall meet the requirements of Subsection 012.05 prior to facility closure; except that owners and operators closing Tier II facilities within eighteen (18) months from April 26, 2002 shall comply with applicable cover, seeding, grading and closure requirements of the former Solid Waste Management Rules and Standards, as enumerated in Subsection 001.04.d. of these rules. (4-2-03)

01. General Siting Requirements. The owner and operator of a Tier II facility shall comply with the following siting requirements: (4-2-03)

a. Flood Plain Restriction. A facility shall not be located within a one hundred (100) year flood plain if the facility will restrict the flow of the one hundred (100) year flood, reduce the temporary water storage capacity of the flood plain, or result in a washout of solid waste so as to pose a hazard to human health and the environment. (4-2-03)

b. Endangered or Threatened Species Restriction. The facility shall not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 CFR Part 17. (4-2-03)

c. Surface Water Restriction. The active portion of a facility shall be located such that the facility shall not cause contamination of surface waters, unless such surface waters are an integral part of the non-municipal solid waste management facility's operation for storm water and/or leachate management. (4-2-03)

d. Park, Scenic or Natural Use Restriction. The active portion of a facility shall not be located closer than one thousand (1,000) feet from the boundary of any state or national park, or land reserved or withdrawn for scenic or natural use including, but not limited to, wild and scenic areas, national monuments, wilderness areas, historic sites, recreation areas, preserves and scenic trails. (4-2-03)

e. Variance from Siting Requirement. An owner or operator of an existing or planned facility that cannot meet the siting requirements of Section 012 may apply for a variance from the Department. The Department shall approve a written request for a variance provided the owner and operator demonstrate to the Department that the variance is at least as protective of public health and the environment as the siting requirements in Section 012. (4-2-03)

02. Siting Application. Documentation shall be submitted to the Department demonstrating compliance with the siting requirements and restrictions specified in Subsection 012.01 within the time frames specified in Section 012. If the documentation has been certified by a qualified professional, the Director shall approve the siting application unless the Director finds the evidence supports a contrary opinion. A map indicating the following shall also be submitted to the Department as part of a Siting Application: (4-2-03)

a. Highways, roads, and adjacent communities; (4-2-03)

b. Property boundaries; (4-2-03)

c. Total acreage of the site; (4-2-03)

d. Off-site and on-site access roads and service roads; (4-2-03)

e. Type(s) of land use adjacent to the facility and a description of all facilities on the site; (4-2-03)

f. All water courses, ponds, lakes, reservoirs, canals, irrigation systems, and existing water supplies, within one-quarter (1/4) mile of the proposed facility property lines; (4-2-03)

g. High tension power line rights-of-way, fuel transmission pipeline rights-of-way, and proposed and existing utilities; (4-2-03)

h. Proposed or existing fencing; (4-2-03)

i. Proposed and existing structures at the facility and within five hundred (500) feet of the facility boundary. This shall include location of employee buildings, and scales (if provided); and (4-2-03)

j. Direction of prevailing winds. (4-2-03)

03. General Operating Requirements. The owner and operator of a Tier II facility shall comply with the following operating requirements: (4-2-03)

a. Prohibited Activities. The following activities are prohibited: (4-2-03)

i. Disposal in a landfill of regulated waste from any business that provides health care, support to health care businesses, or medical diagnostic services that has not been decontaminated. “Regulated waste” and “decontaminated” for the purpose of Section 012 shall have the same meaning as defined at 29 CFR 1910.1030; (4-2-03)

ii. Speculative accumulation, unless otherwise approved in an operating plan; and (4-2-03)

iii. Disposal of radioactive waste except in a facility regulated pursuant to Section 39-4405(9), Idaho Code, and rules adopted thereunder or a facility regulated under the authority of The Atomic Energy Act of 1954, as amended. (4-2-03)

b. Signs. Facilities open to the general public shall clearly post visible and legible signs at each entrance to the facility. The signs shall specify at a minimum the name of the facility, the hours of operation, the waste accepted at the facility and an emergency phone number. (4-2-03)

c. Waste Types. Only the solid waste types listed in the approved operating plan may be accepted for disposal or processing. (4-2-03)

d. Waste Monitoring and Measurement. Provisions shall be made for monitoring or measuring all solid waste delivered to a facility. The waste monitoring program shall include: (4-2-03)

i. A daily written log listing the types and quantities of wastes received; (4-2-03)

ii. A plan for monitoring and handling receipt of unauthorized wastes; (4-2-03)

iii. Routine characterization of the wastes received; and (4-2-03)

iv. Other measures included in an approved Operating Plan. (4-2-03)

e. Communication. Communication devices shall be available or reasonably accessible at the site. (4-2-03)

f. Fire Prevention and Control. Adequate provisions shall be made for controlling or managing fires at the site. (4-2-03)

g. Facility Access. Unauthorized vehicles and persons shall be prohibited access to the facility. A facility open to the public shall accept waste only when an attendant is on duty. The facility shall be fenced or otherwise blocked to access when an attendant is not on duty. (4-2-03)

h. Scavenging and Salvaging. Scavenging by the public at a facility is prohibited; however, salvaging may be conducted in accordance with a written operations plan and only by the owner, operator or an authorized agent. (4-2-03)

i. Nuisance Control. The owner and operator shall control nuisances, including but not limited to: (4-2-03)

i. Disease or Discomfort. Operations at any facility shall not provide sustenance to rodents or insects that cause human disease or discomfort; (4-2-03)

ii. Vector. Vector control procedures shall prevent or control vectors that may cause health hazards or nuisances; (4-2-03)

iii. Odor. The facility shall be operated to control malodorous gases; and (4-2-03)

iv. Litter. Effective measures shall be taken to minimize the loss of debris from the facility. Debris blown from or within the facility shall be collected and properly disposed to prevent objectionable accumulations. (4-2-03)

j. Bird Hazards to Aircraft. No facility may handle putresible wastes in such a manner that may attract birds and increase the likelihood of bird/aircraft collisions. Facilities that are located within ten thousand (10,000) feet of any airport runway used by turbojet aircraft, or within five thousand (5,000) feet of any airport used by only piston-type aircraft shall operate the facility in such a manner that birds are not a hazard to aircraft. (4-2-03)

k. Open Burning and Fires. Open burning is prohibited at facilities except as authorized by these rules and IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

i. No open burning shall be conducted during an air pollution episode, declared in accordance with IDAPA 58.01.01, "Rules for the Control of Air Pollution in Idaho." (4-2-03)

ii. Open burning is authorized only if it is infrequent and the materials are agricultural wastes, silviculture wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations. Materials burned shall not include garbage, dead animals, asphalt, petroleum products, paints, tires or other rubber products, plastics, paper (other than that necessary to start the fire), cardboard, treated wood, construction debris, metal, pathogenic wastes, hazardous wastes, or any other substance (other than natural vegetation) that when burned

releases toxic emissions, dense smoke or strong odors. (4-2-03)

iii. Open burning shall be conducted pursuant to conditions set forth by the Department or local fire authority. The owner and operator of the facility shall contact the Department and the local fire authority prior to conducting open burning to report its nature and location. (4-2-03)

l. Storm Water Run-On/Run-Off Controls. The operating plan shall include sufficient storm water management provisions, which may incorporate a NPDES storm water pollution prevention plan, to prevent contamination of surface and ground water and prevent the spread and impact of contamination beyond the boundary of the facility. (4-2-03)

m. Variance Request. An owner and operator of an existing or planned facility may submit to the Department a written variance request for a variance from the operating requirements listed in Section 012. The Department shall approve a written request for a variance provided the owner and operator demonstrate to the Department that the variance is at least as protective of human health and the environment as the requirements listed in Section 012. (4-2-03)

04. Operating Plan. The owner and operator of a Tier II facility shall submit to the Department an Operating Plan containing that information required by Subsection 012.03, within the time frames stated in Section 012. An Operating Plan shall include a description of the wastes to be accepted, the methods for maintaining compliance with each of the applicable general operating requirements of Subsection 012.03, and complies with any applicable facility specific requirements found in Subsections 012.09 through 012.11. (4-2-03)

05. Closure Requirement. The owner and operator of a Tier II facility shall comply with the following closure and post-closure care requirements: (4-2-03)

a. Public Notice. For a facility open to the public the owner and operator shall provide public notice of the facility's closure by publishing a notice in the local newspaper and posting signs at the facility's entrance. This notice shall be published and the signs posted; (4-2-03)

i. At least thirty (30) days and no more than ninety (90) days prior to the date of last receipt of waste for a facility that has reached disposal capacity; or (4-2-03)

ii. If the facility has remaining capacity and there is a reasonable likelihood that the facility will receive additional waste, a notice shall be published and signs posted at least thirty (30) days and no more than ninety (90) days prior to closure. (4-2-03)

b. Facility Closure. Unless the Department establishes an alternate closure time period, the owner and operator shall close the facility within six (6) months of the Department's approval of the Closure Plan. The facility shall be closed in accordance with the approved Closure Plan. (4-2-03)

c. Clean Site/Access Control. The owner and operator shall close the facility by managing or removing all solid waste to prevent impact to human health or the environment and installing a gate or other device to prevent public access after the last receipt of waste; and (4-2-03)

d. Drainage and Erosion Control. The owner and operator shall install appropriate measures to control erosion and install appropriate measures to control the run-on and runoff from a twenty-five (25) year, twenty-four (24) hour storm event and to provide for the diversion of other surface waters from the closed facility. (4-2-03)

e. Closure Plan Certification. Within thirty (30) days of closure, the owner and operator shall notify the Department in writing that the facility was closed in accordance with the approved Closure Plan. If closure of the facility is different from the approved Closure Plan, the owner and operator shall submit for Department review and approval documents, such as "as-built" plans, showing the final conditions of the facility. (4-2-03)

06. Closure Plan Application. Except as specified in Subsection 012.10, the owner and operator of a Tier II facility shall submit to the Department a Closure Plan Application containing the following information no later than ninety (90) days before the date on which the facility receives the known final receipt of wastes or, if the facility has remaining capacity and there is a reasonable likelihood that the facility will receive additional wastes, no

later than one (1) year after the most recent receipt of wastes: (4-2-03)

a. A complete and accurate legal description of the facility; (4-2-03)

b. A map of the facility, showing pertinent facility features, including: (4-2-03)

i. Facility boundaries, drainage patterns, location of fill areas, and location of access control measures; (4-2-03)

ii. All water courses, ponds, lakes, reservoirs, canals, irrigation systems, and existing water supplies, within one-quarter (1/4) mile of the facility boundary; (4-2-03)

iii. Location of disposal trenches and description of waste disposed; and (4-2-03)

iv. Proposed final contours of the closed facility, drawn to a reasonable scale with five (5) foot intervals for the operational area, and ten (10) foot intervals for the remainder of the facility; (4-2-03)

c. Estimated date of last receipt of waste; (4-2-03)

d. A description of how public access to the closed facility will be controlled; (4-2-03)

e. Estimated total cubic yards, or tons, of waste in place; (4-2-03)

f. Total acreage of the facility and acres containing waste; (4-2-03)

g. Closure equipment and procedures to be used; (4-2-03)

h. Texture, depth and permeability of final cover material; (4-2-03)

i. Design and construction plan for any necessary final cover; (4-2-03)

j. Placement, design, and management of run-on and run-off storm water controls; (4-2-03)

k. Types of vegetation and planting procedures to be used for establishing vegetative cover; (4-2-03)

l. Other closure information the Department determines is necessary to protect human health and the environment. (4-2-03)

07. Documentation Requirements. The owner and operator of a Tier II facility shall maintain on site a copy of each Department-approved Application and Plan required by Section 012. (4-2-03)

08. Modification Application. The owner and operator shall submit to the Department for review and approval a Modification Application describing any proposed modification. The owner and operator of a Tier II facility shall not implement the modification prior to Department approval. If a proposed modification alters the classification of a facility, the owner and operator shall comply with the application content, review and approval requirements for the new classification. (4-2-03)

09. Tier II Processing Facilities. In addition to the requirements in Subsections 012.01 through 012.08, the owner and operator of a Tier II processing facility shall also comply with the following requirements: (4-2-03)

a. Siting Requirements: (4-2-03)

i. Ground Water. The active portion of a facility shall be located, designed and constructed such that the facility shall not cause contamination to a drinking water source or cause contamination of the ground water. (4-2-03)

ii. Geologic Restrictions. No facility may be located on land that would threaten the integrity of the design. (4-2-03)

iii. Property Line Restriction. The active portion of a facility shall not be located closer than one hundred (100) feet to the property line. (4-2-03)

b. Siting Application. The owner and operator shall provide in the Siting Application documentation that demonstrates compliance with the siting requirements specified in Subsection 012.01 and 012.09.a. (4-2-03)

c. Operating Requirements: (4-2-03)

i. Odor Management Plan. The owner and operator of a Tier II processing facility shall implement a Department approved Odor Management Plan designed to minimize malodorous gases. An Odor Management Plan shall include specific operating criteria for oxygen, moisture and temperature levels appropriate for the wastes to be processed and processing technologies to be employed, methods used to maintain the specific operating criteria and a monitoring strategy that includes the frequency and parameters for monitoring the specific operating criteria. (4-2-03)

ii. Documentation requirement. The owner and operator of a processing facility shall maintain documentation of compliance with Section 012, including an operational log of the methods used to maintain the operating criteria and sampling results. (4-2-03)

d. Operating Plan. The operating plan required in Subsection 012.04 shall identify methods used for maintaining compliance with each applicable operating requirement of Subsection 012.03 and Subsection 012.09.c. (4-2-03)

10. Tier II Incinerators, CESQG Management Facility and Transfer Stations. In addition to the requirements in Subsections 012.01 through 012.04 and Subsections 012.07 and 012.08, the owner and operator of a Tier II incinerator, CESQG management facility or transfer station shall comply with the following requirements: (4-2-03)

a. Design Requirements. The owner and operator shall comply with the following design requirements; (4-2-03)

i. A tipping floor design constructed of impermeable and durable material and designed to contain, collect, and convey any liquids to a storage or leachate management system. Any transfer station that accepts only waste tires will not be required to construct a tipping floor; (4-2-03)

ii. A leachate storage or management system. (4-2-03)

b. Design Application. The following information shall be submitted to the Department in a Design Application: (4-2-03)

i. A description of the tipping floor design; (4-2-03)

ii. A description of the storage or leachate management system design; (4-2-03)

iii. Building and construction design blueprints; (4-2-03)

iv. A map illustrating a storm water run-on/run-off system designed to prevent contamination of surface and ground water, and prevent the spread and impact of contamination beyond the boundary of the facility; and (4-2-03)

v. Operational design and capacity information including a description of the waste types and projected daily and annual waste volumes. (4-2-03)

c. Operating Requirements. The owner and operator of a Tier II facility shall comply with the

following operating requirements: (4-2-03)

i. Implement cleaning procedures and waste residency times to maintain sanitary conditions on the surface of the tipping floor; and (4-2-03)

ii. Implement and operate a leachate storage or management system. (4-2-03)

d. Waste Tire Collection Site Requirements. Individual tire piles shall not exceed five thousand (5000) square feet of continuous area, nor fifty thousand (50,000) cubic feet in volume or ten (10) feet in height. (4-2-03)

e. Closure Requirement. The owner and operator of a Tier II facility shall comply with the following closure and post-closure care requirements: (4-2-03)

i. Public Notice. For a facility open to the public the owner and operator shall provide public notice of the facility's closure by publishing a notice in the local newspaper and posting signs at the facility's entrance. This notice shall be published and the signs posted at least thirty (30) days prior to closure. (4-2-03)

ii. Facility Closure. The owner and operator shall close the facility by removing all solid waste to prevent impact to human health or the environment and installing a gate or other device to prevent public access after the last receipt of waste; and (4-2-03)

iii. Closure Time Period. Unless the Department establishes an alternate closure time period, the owner and operator shall close the facility within two (2) months of the Department's approval of the Closure Plan. The facility shall be closed in accordance with the approved Closure Plan. (4-2-03)

iv. Closure Plan Certification. Within thirty (30) days of closure, the owner and operator shall notify the Department in writing that the facility was closed in accordance with the approved Closure Plan. If closure of the facility is different from the approved Closure Plan, the owner and operator shall submit for Department review and approval documents, such as "as-built" plans, showing the final conditions of the facility. (4-2-03)

f. Closure Plan Application. The owner and operator shall submit to the Department a Closure Plan Application containing the following information no later than ninety (90) days before the date on which the facility receives the known final receipt of wastes: (4-2-03)

i. A complete and accurate legal description of the facility; (4-2-03)

ii. A map of the facility, showing pertinent facility features, including facility boundaries, drainage patterns, and location of access control measures; (4-2-03)

iii. Estimated date of last receipt of waste; (4-2-03)

iv. A description of how public access to the closed facility will be controlled; (4-2-03)

v. Closure equipment and procedures to be used; (4-2-03)

vi. Anticipated future uses for the facility; (4-2-03)

vii. Other closure information the Department determines is necessary to protect human health and the environment. (4-2-03)

11. Tier II NMSWLF. In addition to the requirements in Subsections 012.01 through 012.08, the owner and operator of a Tier II NMSWLF shall also comply with the following requirements: (4-2-03)

a. Siting Requirements: (4-2-03)

i. Wetlands. A facility shall not be located in wetlands, except as provided in 40 CFR 257.9. (4-2-03)

ii. Ground Water. The active portion of a facility shall be located, designed and constructed such that the facility shall not cause contamination to a drinking water source or cause contamination of the ground water. (4-2-03)

iii. Geologic Restrictions. No facility may be located on land that would threaten the integrity of the design. (4-2-03)

iv. Property Line Restriction. The active portion of a facility shall not be located closer than one hundred (100) feet to the property line. (4-2-03)

b. Siting Application. The owner and operator shall provide in the Siting Application documentation that demonstrates compliance with the siting requirements specified in Subsections 012.01 and 012.11.a.; (4-2-03)

c. Design Application. The owner and operator shall provide the following information for design approval: (4-2-03)

i. A facility map illustrating: (4-2-03)

(1) Surface water and erosion control systems; (4-2-03)

(2) Proposed fill area, including the location of waste disposal trenches or cells, noting the locations of trenches used for separated wastes such as animal carcasses, tree trunks, stumps, bulky wastes, car bodies, asbestos, and petroleum contaminated soils; (4-2-03)

(3) Location of borrow areas; (4-2-03)

(4) Design elevation grade of final cover; (4-2-03)

(5) Soil and water table test boring holes, wells, or excavations; (4-2-03)

(6) Proposed receiving, storage, and processing areas; (4-2-03)

(7) Proposed trench layout and development; and (4-2-03)

(8) Contour lines at five (5) foot intervals within the operating area and ten (10) foot intervals to the facility boundary. (4-2-03)

d. Operating Requirements: The owner and operator of a NMSWLF shall comply with the following operating requirements: (4-2-03)

i. Compaction and placement of waste in locations consistent with the approved operating plan; (4-2-03)

ii. Provision for storage of waste during periods when the NMSWLF is inaccessible; (4-2-03)

iii. Application of a six (6) inch compacted soil cover layer on exposed waste as necessary to prevent nuisance and vector conditions at periods consistent with the approved operating plan. An owner and operator may request that the Department approve an alternate cover that addresses vectors, litter, fire, odor, and scavenging concerns; (4-2-03)

iv. Placement of an interim cover layer of twelve (12) inches of compacted soil between lifts to provide erosion control and structural stability. An owner and operator may request that the Department approve an alternate interim cover that addresses erosion, and stability for subsequent lifts; (4-2-03)

v. Preservation of existing vegetation where attainable. (4-2-03)

e. Operating Plan. The operating plan required in Subsection 012.04 shall identify the methods used for maintaining compliance with each applicable operating requirement of Subsection 012.03 and Subsection 012.11.d.; (4-2-03)

f. Closure Requirements. The owner and operator of a Tier II NMSWLF shall comply with the following closure requirements: (4-2-03)

i. Final Cover. Within seven (7) days of the date of last receipt of waste, a cover layer shall be applied to prevent nuisances and vector conditions. Within one hundred and twenty (120) days of the date of last receipt of waste, a final cover layer of eighteen (18) inches of compacted soil with an approved in-place permeability designed to minimize infiltration, or its functional equivalent, and, a six (6) inch soil layer that minimizes erosion and sustains plant growth shall be constructed; (4-2-03)

ii. Facility Stabilization. All disturbed portions of the facility shall be stabilized. Stabilization practices may include but are not limited to: establishment of vegetation, mulching, geotextiles, and sod stabilization; (4-2-03)

iii. Slope Stability. Finished grade shall be at a minimum of two percent (2%) and a maximum of thirty- three percent (33%) slope on the final surface of the completed fill area, after settlement; and (4-2-03)

iv. Drainage Control. The completed landfill shall be graded to prevent surface water ponding and erosion, and to conform to the local topography. (4-2-03)

g. Closure Plan. The owner and operator shall provide in the Closure Plan documentation that demonstrates compliance with closure requirements specified in Subsections 012.05 and 012.11.f. (4-2-03)

h. Deed Notation: (4-2-03)

i. After completion and certification of closure of a NMSWLF, the owner and operator shall record a notation on the deed to the landfill facility property, or some other recorded instrument that is normally examined during title search and is commonly recorded in the County where the landfill facility property is located, to provide notice to any potential purchaser that the property has been used as a solid waste processing or disposal facility and its future use may be restricted in accordance with a post-closure care plan. A copy of the notated deed, or other recorded instrument shall be sent to the Department after recording with the county clerk; (4-2-03)

ii. The owner may request permission from the Department to remove the notation from the deed, or to remove the other recorded instrument, if all wastes are removed from the facility; (4-2-03)

iii. Federal agencies with responsibility for management of landfills on federal property shall make a notation in the federal property records for the affected property. If the subject property is ever sold or transferred by the federal government, a notation on the deed or patent shall be made. (4-2-03)

i. Post-Closure Care Plan. Owners and operators of a NMSWLF shall submit, in accordance with the time frames specified in Subsection 012.06, to the Department for review and approval a Post-Closure Care Plan, shall obtain Department approval of the Plan, and shall conduct post-closure care in accordance with the Plan. The Post-Closure Care Plan shall typically contain: (4-2-03)

i. The name and address of an agent authorized to accept communications or service during the post-closure period. The name may be changed during the post-closure period by providing the Department with twenty (20) days advance written notice of the change; (4-2-03)

ii. Provisions to maintain the integrity and effectiveness of the final cover; (4-2-03)

iii. Provisions to continue to maintain and operate the systems required in the operating plan including run-on/run-off control systems; (4-2-03)

iv. Provisions to maintain appropriate security of the closed facility; (4-2-03)

v. Provisions for routine facility inspections by the owner and operator to insure compliance with the Post-Closure Care Plan; and (4-2-03)

vi. A description of the planned use(s) of the property during the post-closure care period: (4-2-03)

j. Post-closure care for the NMSWLF shall be conducted for a period of five (5) years, unless the Department establishes in writing an alternate facility-specific post-closure care period. (4-2-03)

k. Post-Closure Standards and Inspection. Post-closure use or operation of the site shall not disturb any final cover or storm water control systems in a manner that will increase the potential to threaten human health or the environment. (4-2-03)

l. The approved Post-Closure Care Plan shall be maintained and available for review on request by the Department. (4-2-03)

013. APPLICABLE REQUIREMENTS FOR TIER III FACILITIES.
The owner and operator of a new Tier III facility shall establish compliance with the requirements of Section 013 by obtaining Department approval of the applications required in Subsection 013.02 before beginning construction and Subsection 013.04 prior to accepting waste. The owner and operator of an existing Tier III facility shall establish compliance with the requirements of Section 013 by obtaining Department approval of the applications required in Subsection 013.04 within two (2) years from April 26, 2002, and Subsection 013.02 within five (5) years from April 26, 2002. During the two (2) year period from April 26, 2002, existing facilities shall operate in compliance with their approved operating plan and 40 CFR 257.1 through 257.3. In lieu of submitting an application, the owner and operator of existing facilities may demonstrate to the Department, compliance with Section 013 by submitting copies of existing permits and other approvals that establish compliance with the applicable siting, design, operating, closure, and post-closure requirements of Section 013 and Subsection 032.01. The owner and operator of a Tier III facility shall meet the requirements of Subsection 012.07 prior to facility closure; except that owners and operators closing Tier III facilities within eighteen (18) months from April 26, 2002 shall comply with applicable cover, seeding, grading and closure requirements of the former Solid Waste Management Rules and Standards, as enumerated in Subsection 001.04.d. of these rules. (4-2-03)

01. General Siting Requirements. The owner and operator of a Tier III facility shall comply with the following siting requirements: (4-2-03)

a. Flood Plain Restriction. A facility shall not be located within a one hundred (100) year flood plain if the facility will restrict the flow of the one hundred (100) year flood, reduce the temporary water storage capacity of the flood plain, or result in a washout of solid waste so as to pose a hazard to human health and the environment. (4-2-03)

b. Endangered or Threatened Species Restriction. The facility shall not cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife or result in the destruction or adverse modification of the critical habitat of endangered or threatened species as identified in 50 CFR Part 17. (4-2-03)

c. Surface Water Restriction. The active portion of a facility shall be located such that the facility shall not cause contamination of surface waters, unless such surface waters are an integral part of the non-municipal solid waste management facility's operation for storm water and/or leachate management. (4-2-03)

d. Ground Water. The active portion of the facility shall be located, designed and constructed such that the facility shall not cause contamination to a drinking water source or cause contamination of ground water. (4-2-03)

e. Geologic Restrictions. No facility may be located on land that would threaten the integrity of the design. (4-2-03)

f. Property Line Restriction. The active portion of a facility shall not be located closer than one hundred (100) feet to the property line. (4-2-03)

g. Park, Scenic or Natural Use Restriction. The active portion of a facility shall not be located closer than one thousand (1,000) feet from the boundary of any state or national park, or land reserved or withdrawn for scenic or natural use including, but not limited to, wild and scenic areas, national monuments, wilderness areas, historic sites, recreation areas, preserves and scenic trails. (4-2-03)

h. Variance from Siting Requirement. Any existing or planned facility that does not meet the siting requirements of Section 013 may apply for a variance from the Department. The Department may approve a written request for a variance provided the owner and operator demonstrate to the Department that the variance is at least as protective of public health and the environment as the siting requirements in Section 013. (4-2-03)

02. Siting Application. Documentation shall be submitted to the Department demonstrating compliance with the siting requirements and restrictions specified in Subsection 013.01 within the time frames specified in Section 013. If the documentation has been certified by a qualified professional, the Director shall approve the siting application unless the Director finds the evidence supports a contary opinion. A map indicating the following shall also be submitted to the Department as part of a Siting Application: (4-2-03)

a. Highways, roads, and adjacent communities; (4-2-03)

b. Property boundaries; (4-2-03)

c. Total acreage of the site; (4-2-03)

d. Off-site and on-site access roads and service roads; (4-2-03)

e. Type(s) of land use adjacent to the facility and a description of all facilities on the site; (4-2-03)

f. All water courses, ponds, lakes, reservoirs, canals, irrigation systems, and existing water supplies, within one-quarter (1/4) mile of the proposed facility property lines; (4-2-03)

g. High tension power line rights-of-way, fuel transmission pipeline rights-of-way, and proposed and existing utilities; (4-2-03)

h. Proposed or existing fencing; (4-2-03)

i. Proposed and existing structures at the facility and within five hundred (500) feet of the facility boundary. This shall include location of employee buildings, and scales (if provided); and (4-2-03)

j. Direction of prevailing winds. (4-2-03)

03. General Operating Requirements. The owner and operator of a Tier III facility shall comply with the following operating requirements: (4-2-03)

a. Prohibited Activities. The following activities are prohibited: (4-2-03)

i. Disposal in a landfill of regulated waste from any business that provides health care, support to health care businesses, or medical diagnostic services that has not been decontaminated. “Regulated waste” and “decontaminated” for the purpose of Section 013 shall have the same meaning as defined at 29 CFR 1910.1030; (4-2-03)

ii. Speculative accumulation, unless otherwise approved in an operating plan; and (4-2-03)

iii. Disposal of radioactive waste except in a facility regulated pursuant to Section 39-4405(9), Idaho Code and rules adopted thereunder or a facility regulated under the authority of The Atomic Energy Act of 1954, as amended. (4-2-03)

b. Signs. Facilities open to the general public shall clearly post visible and legible signs at each

entrance to the facility. The signs shall specify at a minimum the name of the facility, the hours of operation, the waste accepted at the facility and an emergency phone number. (4-2-03)

c. Waste Types. Only the solid waste types listed in the approved operating plan may be accepted for disposal or processing. (4-2-03)

d. Waste Monitoring and Measurement. Provisions shall be made for monitoring or measuring all solid waste delivered to a facility. The waste monitoring program shall include: (4-2-03)

i. A daily written log listing the types and quantities of wastes received; (4-2-03)

ii. A plan for monitoring and handling receipt of unauthorized wastes; (4-2-03)

iii. Routine characterization of the wastes received; and (4-2-03)

iv. Other measures included in an approved Operating Plan. (4-2-03)

e. Communication. Communication devices shall be available or reasonably accessible at the site. (4-2-03)

f. Fire Prevention and Control. Adequate provisions shall be made for controlling or managing fires at the site. (4-2-03)

g. Facility Access. Unauthorized vehicles and persons shall be prohibited access to the facility. A facility open to the public shall accept waste only when an attendant is on duty. The facility shall be fenced or otherwise blocked to access when an attendant is not on duty. (4-2-03)

h. Scavenging and Salvaging. Scavenging by the public at a facility is prohibited; however, salvaging may be conducted in accordance with a written operating plan and only by the owner, operator or an authorized agent. (4-2-03)

i. Nuisance Control. The owner and operator shall control nuisances, including but not limited to: (4-2-03)

i. Disease or Discomfort. Operations at any facility shall not provide sustenance to rodents or insects that cause human disease or discomfort; (4-2-03)

ii. Vector. Vector control procedures shall prevent or control vectors that may cause health hazards or nuisances; (4-2-03)

iii. Odor. The facility shall be operated to control malodorous gases; and (4-2-03)

iv. Litter. Effective measures shall be taken to minimize the loss of debris from the facility. Debris blown from or within the facility shall be collected and properly disposed to prevent objectionable accumulations. (4-2-03)

j. Bird Hazards to Aircraft. No facility may handle putresible wastes in such a manner that may attract birds and increase the likelihood of bird/aircraft collisions. Facilities that are located within ten thousand (10,000) feet of any airport runway used by turbojet aircraft, or within five thousand (5,000) feet of any airport used by only piston-type aircraft shall operate the facility in such a manner that birds are not a hazard to aircraft. (4-2-03)

k. Open Burning and Fires. Open burning is prohibited at facilities except as authorized by these rules and IDAPA 58.01.01, “Rules for the Control of Air Pollution in Idaho.” (4-2-03)

i. No open burning shall be conducted during an air pollution episode, declared in accordance with IDAPA 58.01.01, “Rules for the Control of Air Pollution in Idaho.” (4-2-03)

ii. Open burning is authorized only if it is infrequent and the materials are agricultural wastes, silviculture wastes, land clearing debris, diseased trees, or debris from emergency cleanup operations. Materials burned shall not include garbage, dead animals, asphalt, petroleum products, paints, tires or other rubber products, plastics, paper (other than that necessary to start the fire), cardboard, treated wood, construction debris, metal, pathogenic wastes, hazardous wastes, or any other substance (other than natural vegetation) that when burned releases toxic emissions, dense smoke or strong odors. (4-2-03)

iii. Open burning shall be conducted pursuant to conditions set forth by the Department or local fire authority. The owner and operator of the facility shall contact the Department and the local fire authority prior to conducting open burning to report its nature and location. (4-2-03)

l. Storm Water Run-On/Run-Off Controls. The operating plan shall include sufficient storm water management provisions, which may incorporate a NPDES storm water pollution prevention plan, to prevent contamination of ground or surface water and prevent the spread and impact of contamination beyond the boundary of the facility. (4-2-03)

m. Variance Request. An owner and operator may submit to the Department a written variance request for a variance from the operating requirements listed in Section 013. The Department shall approve a written request for a variance provided the owner and operator demonstrate to the Department that the variance is at least as protective of human health and the environment as the requirements listed in Section 013. (4-2-03)

04. Operating Plan. The owner and operator of a Tier III facility shall submit to the Department an Operating Plan containing that information required by Subsection 013.03, within the time frames stated in Section 013. An Operating Plan shall included a description of the wastes to be accepted, the methods for maintaining compliance with each of the applicable general operating requirements of Subsection 013.03, and complies with any applicable facility specific requirements found in Subsections 013.11 through 013.13. (4-2-03)

05. Ground Water Monitoring Requirements. The owner and operator of a new Tier III facility shall comply with the following ground water monitoring requirements: (4-2-03)

a. Install and maintain ground water monitoring wells at the point of compliance as approved by the Department; (4-2-03)

b. Within thirty (30) days of completion of each well, submit a copy of the geologic log and record of well construction to the Department; (4-2-03)

c. Monitor the ground water quarterly, unless otherwise directed by the Department. Constituents to be monitored shall be those listed in 40 CFR Part 257.24 unless otherwise authorized by the Department; and (4-2-03)

d. The owner and operator of any facility required to monitor ground water pursuant to Section 013 shall continue the approved monitoring schedule for five (5) years following facility closure, unless otherwise approved by the Department upon request of the owner and operator for a modified monitoring schedule. (4-2-03)

06. Ground Water Monitoring Application. The following information shall be submitted to the Department in a Ground Water Monitoring Application: (4-2-03)

a. A map showing soil types, depth to ground water, ground water flow direction and locations of proposed ground water monitoring wells; and (4-2-03)

b. A monitoring schedule indicating sample frequency and constituents to be analyzed. (4-2-03)

07. Closure Requirement. The owner and operator of a Tier III facility shall comply with the following closure requirements: (4-2-03)

a. Public Notice. For a facility open to the public the owner and operator shall provide public notice of the facility's closure by publishing a notice in the local newspaper and posting signs at the facility's entrance. This

notice shall be published and the signs posted; (4-2-03)

i. At least thirty (30) days and no more than ninety (90) days prior to the date of last receipt of waste for a facility that has reached disposal capacity; or (4-2-03)

ii. If the facility has remaining capacity and there is a reasonable likelihood that the facility will receive additional waste, a notice shall be published and signs posted at least thirty (30) days and no more than ninety (90) days prior to closure. (4-2-03)

b. Facility Closure. Unless the Department establishes an alternate closure time period, the owner and operator shall close the facility within six (6) months of the Department's approval of the Closure Plan. The facility shall be closed in accordance with the approved Closure Plan. (4-2-03)

c. Clean Site/Access Control. The owner and operator shall close the facility by managing or removing all solid waste to prevent impact to human health or the environment and shall install a gate or other device to prevent public access after the last receipt of waste; (4-2-03)

d. Drainage and Erosion Control. The owner and operator shall install appropriate measures to control erosion and install appropriate measures to control the run-on and runoff from a twenty-five (25) year, twenty-four (24) hour storm event and to provide for the diversion of other surface waters from the closed facility; and (4-2-03)

e. Closure Plan Certification. Within thirty (30) days of closure, the owner and operator shall notify the department in writing that the facility was closed in accordance with the approved Closure Plan. If closure of the facility is different from the approved Closure Plan, the owner and operator shall submit for Department review and approval documents, such as "as-built" plans, showing the final conditions of the facility. (4-2-03)

08. Closure Plan Application. The owner and operator of a Tier III facility shall submit to the Department a Closure Plan Application containing the information no later than ninety (90) days before the date on which the facility receives the known final receipt of wastes or, if the facility has remaining capacity and there is a reasonable likelihood that the facility will receive additional wastes, no later than one (1) year after the most recent receipt of wastes. The following information shall be submitted to the Department in a Closure Application: (4-2-03)

a. A complete and accurate legal description of the facility; (4-2-03)

b. A map of the facility, showing pertinent facility features, including: (4-2-03)

i. Facility boundaries, drainage patterns, location of fill areas, and location of access control measures; (4-2-03)

ii. All water courses, ponds, lakes, reservoirs, canals, irrigation systems, and existing water supplies, within one-quarter (1/4) mile of the facility boundary; (4-2-03)

iii. Location of disposal trenches and description of waste disposed; and (4-2-03)

iv. Proposed final contours of the closed facility, drawn to a reasonable scale with five (5) foot intervals for the operational area, and ten (10) foot intervals for the remainder of the facility; (4-2-03)

c. Estimated date of last receipt of waste; (4-2-03)

d. A description of how public access to the closed facility will be controlled; (4-2-03)

e. Estimated total cubic yards, or tons, of waste in place; (4-2-03)

f. Total acreage of the facility and acres containing waste; (4-2-03)

g. Closure equipment and procedures to be used; (4-2-03)

h. Texture, depth and permeability of final cover material; (4-2-03)

i. Design and construction plan for any necessary final cover; (4-2-03)

j. Placement, design, and management of run-on and run-off storm water controls; (4-2-03)

k. Types of vegetation and planting procedures to be used for establishing vegetative cover; (4-2-03)

l. Details of any proposed changes to any existing groundwater monitoring system; (4-2-03)

m. Details of any proposed changes to any existing landfill gas control system; (4-2-03)

n. Details of any proposed changes to any existing leachate collection system; and (4-2-03)

o. Other closure information the Department determines is necessary to protect human health and the environment. (4-2-03)

09. Documentation Requirements. The owner and operator of a Tier III facility shall maintain on site each Department-approved application required by Section 013. (4-2-03)

10. Modification Application. The owner and operator shall submit to the Department a Modification Application describing the proposed modification no less than sixty (60) days prior to the proposed modification of the facility. The owner and operator of a Tier III facility shall not implement the modification prior to Department approval. If a proposed modification alters the classification of a facility, the owner and operator shall comply with the application content, review and approval requirements for the new classification. (4-2-03)

11. Tier III Processing Facilities. In addition to the requirements in Subsections 013.01 through 013.10, the owner and operator of a Tier III processing facility shall comply with the following requirements: (4-2-03)

a. Odor Management Plan. The owner and operator of a Tier III processing facility shall implement a Department approved Odor Management Plan designed to minimize malodorous gases. An Odor Management Plan shall include specific operating criteria for oxygen, moisture and temperature levels appropriate for the wastes to be processed and processing technologies to be employed; methods used to maintain the specific operating criteria and a monitoring strategy that includes the frequency and parameters for monitoring the specific operating criteria; (4-2-03)

b. Additional Requirements for PCS. Owners and operators of Tier III PCS processing facilities shall comply with the following applicable requirements: (4-2-03)

i. Leachate collection and control system to prevent contamination of ground and surface waters; (4-2-03)

ii. Liner designed to prevent ground and surface water contamination. The liner design shall account for the types of wastes handled and the potential for migration of liquids and gaseous contaminants to ground water; and (4-2-03)

iii. Air emission control system to prevent discharges of air pollutants. (4-2-03)

iv. An owner and operator of a PCS processing facility may submit a written request for a variance from the leachate control and liner requirements. The owner and operator must demonstrate that the variance is at least as protective of surface and ground water as the leachate collection system and liner. (4-2-03)

c. Design Application. The following information shall be submitted to the Department in a Design Application: (4-2-03)

i. Building and construction design blueprints; (4-2-03)

ii. A map illustrating a storm water run-on/run-off system designed to prevent contamination of ground or surface water or and prevent contamination beyond the boundary of the facility; (4-2-03)

iii. Operational design and capacity information including a description of the waste types and projected daily and annual waste volumes; and (4-2-03)

iv. Design and Construction Requirements. The owner and operator of a Tier III PCS processing facility shall submit for Department review and approval the following information as part of the Design Application: (4-2-03)

(1) A hydrogeologic evaluation, including the potential for migration of contamination to ground or surface water; (4-2-03)

(2) A detailed description of treatment methods to be used; (4-2-03)

(3) Design plans for a leachate collection and control system to prevent ground and surface water contamination from the leachate control system; (4-2-03)

(4) Design plans for an air emissions control system to prevent discharges of air pollutants; and (4-2-03)

(5) Design plans for a liner designed to prevent ground or surface water contamination. The liner design shall account for the types of wastes handled and the potential for migration of liquid and gaseous contaminants to ground water. (4-2-03)

d. Operating Plan. The owner and operator of a PCS processing facility shall submit for Department review and approval the following information as part of the Subsection 013.04, Operating Plan: (4-2-03)

i. A sampling plan that describes the methods and frequency that the owner and operator will use to sample and analyze the wastes when received, during processing, and on final testing of processed material; and (4-2-03)

ii. A description of how the owner and operator will maintain and operate the liner, leachate collection and control system, and air emission control system consistent with the approved design application. (4-2-03)

e. Documentation Requirement. The owner and operator of a processing facility shall maintain documentation of compliance with Section 013, including an operational log of the methods used to maintain the operating criteria and sampling results. (4-2-03)

12. Tier III Incinerators. In addition to the requirements in Subsections 013.01 through 013.04 and Subsections 013.09 and 013.10, the owner and operator of a Tier III incinerator shall comply with the following requirements: (4-2-03)

a. Design Requirements. The owner and operator of an incinerator comply with the following design requirements: (4-2-03)

i. A tipping floor constructed of impermeable and durable material and designed to contain, collect, and convey any liquids to a storage or leachate management system. Any facility that accepts only waste tires will not be required to construct a tipping floor. (4-2-03)

ii. A storage or leachate management system. (4-2-03)

b. Design Application. The following information shall be submitted to the Department in a Design Application: (4-2-03)

i. A description of the tipping floor design; (4-2-03)

ii. A description of the storage or leachate management system design; (4-2-03)

iii. Building and construction design blueprints; (4-2-03)

iv. A map illustrating a storm water run-on/run-off system designed to prevent ground or surface water contamination, or contamination from the facility beyond the boundary of the facility; (4-2-03)

v. Operational design and capacity information including a description of the waste types and projected daily and annual waste volumes; and (4-2-03)

vi. Any facility specific design elements required by these rules. (4-2-03)

c. Operating Requirements. The owner and operator of an incinerator shall comply with the following operating requirements: (4-2-03)

i. Maintain and operate the tipping floor to control odors, insects, and rodents; (4-2-03)

ii. Implement cleaning procedures and waste residency times used to maintain sanitary conditions on the surface of the tipping floor; and (4-2-03)

iii. Implement a storage or leachate management system operation. (4-2-03)

d. Waste Tire Collection Site Requirements. Individual tire piles shall not exceed five thousand (5000) square feet of continuous area, nor fifty thousand (50,000) cubic feet in volume or ten (10) feet in height. (4-2-03)

e. If it is determined that the tipping floor or leachate management system integrity has been breached, or waste has been handled or stored outside of the containment of the tipping floor, unless allowed in the facility Operating Plan, the owner and operator of the Tier III incinerator shall comply with Subsections 013.05 through 013.08. (4-2-03)

13. Tier III NMSWLFs. In addition to the requirements in Subsection 013.01 through 013.10, the owner and operator of a Tier III NMSWLF shall comply with the following requirements: (4-2-03)

a. Siting Requirements: A facility shall not be located in wetlands, except as provided in 40 CFR 257.9; (4-2-03)

b. Siting Application. The owner and operator shall include in the Siting Application documentation demonstrating compliance with the requirement specified in Subsection 013.13.a.; (4-2-03)

c. Design and Construction Requirements: The owner and operator of a new NMSWLF shall comply with the following design and construction requirements: (4-2-03)

i. Leachate Collection and Control System. A leachate collection and control system shall be constructed to prevent ground and surface water contamination; (4-2-03)

ii. Liner. A liner designed to prevent ground or surface water contamination shall be installed. The liner design shall account for the types of wastes handled and the potential for migration of liquid and gaseous contamination to ground or surface water; (4-2-03)

iii. Landfill Emission Control System. Appropriate toxic and flammable gas monitoring devices shall be installed where the location, geophysical condition, and waste characteristics indicate that there is a reasonable probability that the facility will generate toxic and flammable gas: exceeding twenty-five (25) percent of the lower explosive limit for gases in facility structures (excluding gas control or gas recovery system components); exceeding the lower explosive limit at the property boundary; or otherwise presenting a potential threat to public health or the environment; and (4-2-03)

iv. An owner or operator may submit a written request for a variance from the leachate collection and control system, liner, or emission control system requirements. The Department may approve the variance upon demonstration by the owner or operator that the variance is at least as protective of human health and the environment as the leachate collection and control system, liner, or emission control system. (4-2-03)

d. Design Application. The following information shall be submitted to the Department in a Design Application: (4-2-03)

i. Design plans shall address the need for and include as required a leachate collection and control system, liner, and emission control systems in Subsection 013.13.c.; (4-2-03)

ii. A facility map illustrating: (4-2-03)

(1) Surface water and erosion control systems; (4-2-03)

(2) Proposed fill area, including the location of waste disposal trenches or cells, noting the locations of trenches used for separated wastes such as animal carcasses, tree trunks, stumps, bulky wastes, car bodies, asbestos, and petroleum contaminated soils; (4-2-03)

(3) Location of borrow areas; (4-2-03)

(4) Design elevation grade of final cover; (4-2-03)

(5) Soil and water table test boring holes, wells, or excavations; (4-2-03)

(6) Proposed receiving, storage, and processing areas; (4-2-03)

(7) Proposed trench layout and development; and (4-2-03)

(8) Contour lines at five (5) foot intervals within the operating area and ten (10) foot intervals to the facility boundary. (4-2-03)

(9) Building and construction design blueprints; (4-2-03)

(10) Operational design and capacity information including a description of the waste types and projected daily and annual waste volumes; and (4-2-03)

e. Operating Requirements: The owner and operator of a NMSWLF shall comply with the following operating requirements: (4-2-03)

i. Compaction and placement of waste in locations consistent with the approved operations plan; (4-2-03)

ii. Provision for storage of waste during periods when the NMSWLF is inaccessible; (4-2-03)

iii. Application of a six (6) inch compacted soil cover layer on exposed waste as necessary to prevent nuisance and vector conditions at periods consistent with the approved operations plan. An owner and operator may request that the Department approve an alternate cover that addresses vectors, litter, fire, odor, and scavenging concerns; (4-2-03)

iv. Placement of an interim cover layer of twelve (12) inches of compacted soil between lifts to provide erosion control and structural stability. An owner and operator may request that the Department approve an alternate interim cover that addresses erosion, and stability for subsequent lifts; (4-2-03)

v. Maintenance and operation of a leachate collection and control system and air emission control system consistent with the approved design application; and (4-2-03)

vi. Preservation of existing vegetation where attainable. (4-2-03)

f. Operating Plan. The operating plan required in Section 013 shall identify the methods used for maintaining compliance with each applicable operating requirement of Subsection 013.03. and Subsection 013.13.e. including but not limited to the type, the method of compaction and the frequency of application of respective cover materials; (4-2-03)

g. Closure Requirements. The owner and operator of a NMSWLF shall comply with the following closure requirements: (4-2-03)

i. Final Cover. Within seven (7) days of the date of last receipt of waste, a cover layer shall be applied to prevent nuisances and vector conditions. Within one hundred and twenty (120) days of the date of last receipt of waste, a final cover layer of eighteen (18) inches of compacted soil with an approved in-place permeability designed to minimize infiltration, or its functional equivalent, and, a six (6) inch soil layer that minimizes erosion and sustains plant growth shall be constructed; (4-2-03)

ii. Facility Stabilization. All disturbed portions of the facility shall be stabilized. Stabilization practices may include but are not limited to: establishment of vegetation, mulching, geotextiles, and sod stabilization; (4-2-03)

iii. Slope Stability. Finished grade shall be at a minimum of two percent (2%) and a maximum of thirty- three percent (33%) slope on the final surface of the completed fill area, after settlement; and (4-2-03)

iv. Drainage Control. The completed landfill shall be graded to prevent surface water ponding and erosion, and to conform to the local topography. (4-2-03)

h. Deed Notation: (4-2-03)

i. After completion and certification of closure of a NMSWLF, the owner and operator shall record a notation on the deed to the landfill facility property, or some other recorded instrument that is normally examined during title search and is commonly recorded in the County where the landfill facility property is located, to provide notice to any potential purchaser that the property has been used as a solid waste processing or disposal facility and its future use may be restricted in accordance with a post-closure care plan. A copy of the notated deed, or other recorded instrument, shall be sent to the Department after recording with the county clerk. (4-2-03)

ii. The owner may request permission from the Department to remove the notation from the deed, or the other recorded instrument, if all wastes are removed from the facility. (4-2-03)

iii. Federal agencies with responsibility for management of landfills on federal property shall make a notation in the federal property records for the affected property. If the subject property is ever sold or transferred by the federal government, a notation on the deed or patent shall be made. (4-2-03)

i. Closure Plan. The owner and operator shall provide in the Closure Plan documentation that demonstrates compliance with closure requirements specified in Subsections 013.07 and 013.13.g. (4-2-03)

j. Post-Closure Care Plan. Owners and operators of a NMSWLF shall submit, in accordance with the time frames specified in Subsection 013.08, to the Department for review and approval a Post-Closure Care Plan, shall obtain Department approval of the Plan, and shall conduct post-closure care in accordance with the Plan: (4-2-03)

i. Unless the Department determines otherwise, the Post-Closure Care Plan shall contain: (4-2-03)

(1) The name and address of an agent authorized to accept communications or service during the post-closure period. The name may be changed during the post-closure period by providing the Department with twenty (20) days advance written notice of the change; (4-2-03)

(2) Provisions to maintain the integrity and effectiveness of the final cover; (4-2-03)

(3) Provisions to continue to maintain and operate the systems required in the operating plan, including: run-on/run-off control systems, leachate collection and control systems, groundwater monitoring systems, and gas monitoring systems; (4-2-03)

(4) Provisions to maintain appropriate security of the closed facility; (4-2-03)

(5) Provisions for routine facility inspections by the owner and operator to insure compliance with the Post-Closure Care Plan; and (4-2-03)

(6) A description of the planned use(s) of the property during the post-closure care period. (4-2-03)

ii. Post-closure care for the NMSWLF shall be conducted for a minimum of five (5) years, but not more than thirty (30) years, as necessary to protect human health and the environment. (4-2-03)

iii. Post-Closure Standards and Inspection. Post-closure use or operation of the site shall not disturb any final cover, liner or other component of the containment system in a manner that will increase the potential to threaten human health or the environment. (4-2-03)

iv. The approved Post-Closure Care Plan shall be maintained and available for review on request by the Department. (4-2-03)

v. The requirements in Subsection 013.07 shall apply to owners and operators and their successors and assigns. (4-2-03)

014. -- 031. (RESERVED).

032. TIER II AND TIER III APPLICATION AND PLAN REVIEW AND APPROVAL.

01. Application Submittal. The owner and operator shall submit three (3) copies of each required application to the Department. The owner and operator may submit applications for siting, design, operation, or ground water monitoring approval sequentially or concurrently. (4-2-03)

02. Preapplication Conference. The owner or operator may request that the Department convene a preapplication conference with any interested federal, state and local entities to discuss the approval procedures, application content, time tables for application processing, siting and design requirements. (4-2-03)

03. Application Review. (4-2-03)

a. On receipt of an application the Department shall, within thirty (30) days, notify the owner and operator in writing whether the submission is complete and whether the application identifies an appropriate Tier level. The notice shall identify any deficiencies in the application, and the information relied upon in making the determination, and shall state that an applicant may submit additional information in the form of an amended application, withdraw the application or request a conference to discuss the Department's determination. (4-2-03)

b. Upon receipt of the Department's determination that a siting application is complete, the owner and operator shall publish a notice in a newspaper of general circulation as determined in Section 31-819, Idaho Code, in the county and the immediate vicinity of the proposed facility and shall also provide notice to local government. The notice shall include the name and location of the proposed facility, a general description of the proposed operations, the location where the application may be reviewed, and instructions directing the public to submit comments to the Department within thirty (30) days of the date of publication. The owner and operator shall provide a copy of the published notice and notice to local government to the Department within five (5) business days of publication. (4-2-03)

c. The Department shall approve, deny, or approve with conditions each application. Failure to issue a decision within the stated time shall be deemed approval. Approval conditions shall relate to protection of human

health and the environment as required in these rules. (4-2-03)

i. For a siting application, the Department shall notify the owner and operator in writing of the Department's decision within thirty (30) days of the date of the close of the public comment period. The Department and the owner and operator may agree, in writing to a longer period of time for the Department's determination. Design, Operating and Ground Water Monitoring Applications shall not be reviewed until the Siting Application is approved. (4-2-03)

ii. For the Design, Operating and Ground Water Monitoring applications, the Department shall notify the owner and operator in writing of the Department's decision within sixty (60) days from the date the application is determined to be complete. (4-2-03)

d. If the Department denies an application, the written decision shall state the basis for the denial, and the information relied upon in making the determination. (4-2-03)

04. Application Valid for Two Years. Unless otherwise stated in the Department's approval of the facility's application, the Department's approval shall become invalid if the owner and operator fail to begin construction within two (2) years from the date of approval, or if after construction has begun, work is suspended for more than two (2) years. Owners and operators may apply for an extension provided that the written request is received by the Department no less than one (1) month prior to expiration of the approval. Within fifteen (15) days from Department receipt of extension request, the Department shall approve the extension request or deny the extension request and state the basis for denial. (4-2-03)

033. -- 059. (RESERVED).

060. VIOLATIONS.

01. Failure to Comply. Failure by any person to comply with the provisions of these rules shall be deemed a violation of these rules. (4-2-03)

02. Falsification of Statements and Records. It shall be a violation of these rules for any person to knowingly make a false statement, representation, or certification in any application, document, or record developed, maintained, or submitted pursuant to these rules or the conditions of an approval. (4-2-03)

03. Penalties. Any person violating any provision of these rules or any approved conditions or order issued thereunder shall be liable for civil penalty in accordance with Title 39, Chapter 1, Idaho Code. (4-2-03)

061. -- 993. (RESERVED).

994. COMMERCIAL SOLID WASTE SITING LICENSE FEE.
An application for a commercial solid waste siting license required by the Idaho Solid Waste Facilities Act shall be accompanied by a siting license fee in an amount established by these rules. The license fee shall not exceed seven thousand five hundred dollars ($7,500) and shall be submitted with the siting license application. (4-2-03)

01. Commercial Solid Waste Siting License Fee Criteria. The commercial solid waste siting license fee required by the Idaho Solid Waste Facilities Act and these rules shall apply to commercial MSWLFs only and shall be based on the cost of the Department's review and the characteristics of the proposed commercial solid waste facility, including the projected site size, projected waste volume, and the hydrogeological and atmospheric characteristics surrounding the site. (4-2-03)

02. Commercial Solid Waste Siting License Fee Scale. The commercial solid waste siting license fee required by the Idaho Solid Waste Facilities Act and these rules shall be determined using the table below. The fee determined using the table below may then be adjusted by the Department if necessary to reflect the cost of the Department's review, taking into account the hydrogeological and atmospheric characteristics surrounding the site.

COMMERCIAL SOLID WASTE SITING LICENSE FEE SCALE PROJECTED SOLID WASTE VOLUME Tons per day (TPD)			
Site Size	**Up to 20 TPD**	**20 to 100 TPD**	**More than 100 TPD**
5 acres or less	$3,500	$4,500	$5,500
5 to 50 acres	$4,500	$5,500	$6,500
more than 50 acres	$5,500	$6,500	$7,500

(4-2-03)

03. Notification of Adjustment of Fee. Within thirty (30) days of receipt of the application and fee, the Department shall notify the applicant if the fee has been adjusted and the date by which any additional fee must be paid by the applicant. (4-2-03)

04. Expansion or Enlargement of a Commercial Solid Waste Facility. The expansion or enlargement of a commercial solid waste facility constitutes a new proposal for which a commercial solid waste siting license is required and for which a siting license fee must be paid. All commercial solid waste facilities not in operation on March 20, 1996 must submit a commercial solid waste license application and fee. (4-2-03)

05. Commercial Solid Waste Siting License Fee Not Refundable. The commercial solid waste siting license fee required by the Idaho Solid Waste Facilities Act and by these rules shall not be refundable and may not be applied toward any subsequent application should the commercial solid waste siting license application be canceled, withdrawn or denied. (4-2-03)

995. COMMERCIAL SOLID WASTE SITING LICENSE APPLICATION.
In addition to the contents of a Siting License Application as required in the Idaho Solid Waste Facilities Act, these rules require the applicant to include in the application the following items: (4-2-03)

01. Location. A map indicating the location of the proposed commercial solid waste facility; (4-2-03)

02. Copies of Application. Ten (10) copies of the completed application; and (4-2-03)

03. Application Format. A copy of the application in a format prepared for photocopying. (4-2-03)

996. -- 998. (RESERVED).

999. CONFIDENTIALITY OF RECORDS.
Information obtained by the Department under these rules is subject to public disclosure pursuant to the provisions of Chapter 3, Title 9, Idaho Code. Information submitted under a trade secret claim may be entitled to confidential treatment by the Department as provided in Section 9-342A, Idaho Code, and IDAPA 58.01.21, "Rules Governing the Protection and Disclosure of Records in the Possession of the Department of Environmental Quality." (4-2-03)

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 830
STANDARDS FOR COMPOST FACILITIES

SUBPART A: GENERAL PROVISIONS

Section

SUBPART B: STANDARDS FOR OWNERS AND OPERATORS OF LANDSCAPE WASTE COMPOST FACILITIES

Section

SUBPART E: QUALITY OF END-PRODUCT COMPOST

Section

SUBPART F: FINANCIAL ASSURANCE

Section

AUTHORITY: Implementing Sections 5, 21, 22.33, 22.34, 22.35 and 39 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/5, 21, 22.33, 22.34, 22.35, 27 and 39].

SOURCE: Adopted at 18 Ill. Reg. 17017, effective November 15, 1994; amended in R97-29 at 22 Ill. Reg. 21052, effective November 23, 1998.

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

NOTE: In this Part, unless the context clearly indicates otherwise, superscript numbers or letters are denoted by parentheses; subscript are denoted by brackets.

SUBPART A: GENERAL PROVISIONS

Section 830.101 Purpose, Scope and Applicability

a) The purpose of this Part is to establish:

1) Performance standards for landscape waste compost facilities operating in the State of Illinois; and

2) Testing procedures and standards for end-product compost offered, by a facility, for sale or use in the State of Illinois.

b) General applicability.

1) The provisions of this Part apply to all landscape waste compost facilities operating in the State of Illinois, except those expressly exempted pursuant to Section 830.104 and those regulated pursuant to 35 Ill. Adm. Code 391 and 40 CFR Part 503.

2) Facilities regulated pursuant to this Part are not subject to 35 Ill. Adm. Code 807 or 810 through 815, except that any accumulation of materials meeting the 35 Ill. Adm. Code 810 definition of a waste pile shall be subject to 35 Ill. Adm. Code 810 through 815.

3) Facilities regulated pursuant to Subpart B shall accept only landscape waste for composting.

c) Specific applicability.

1) The provisions of this Subpart apply to all facilities subject to this Part; the definitions set forth in Section 830.102 apply for purposes of this Part, 35 Ill. Adm. Code 831, and 35 Ill. Adm. Code 832.

2) The performance standards set forth in Subpart B are applicable to landscape waste composting facilities subject to this Part.

3) The performance standards set forth in Subpart E are applicable to all general use compost offered for sale or use in Illinois; the testing requirements set forth in Subpart E are applicable to facilities offering general use compost for sale or use in Illinois.

4) The financial assurance requirements set forth in Subpart F are applicable to all facilities subject to this Part that are required to have a permit pursuant to 35 Ill. Adm. Code 831.

Section 830.102 Definitions

Except as stated in this Section, the definition of each word or term used in this Part, 35 Ill. Adm. Code 831 and 35 Ill. Adm. Code 832 shall be the same as that applied to the same word or term in the Environmental Protection Act ("Act") [415 ILCS 5].

"Act" means the Environmental Protection Act [415 ILCS 5].

"Additive" means components, other than landscape waste, added to composting material to maximize the decomposition process by adjusting any of the following: moisture, temperature, oxygen transfer, pH, carbon to nitrogen ratio, biology or biochemistry of the composting material.

"Aerated static pile" means a composting system that uses a series of perforated pipes or equivalent air distribution systems running underneath a compost pile and connected to a blower that either draws or blows air through the piles. Little or no pile agitation or turning is performed.

"Aerobic composting" means a process managed and maintained to promote maturation of organic materials by microbial action in the presence of free oxygen contained within the gas in the composting material.

"Aerobic" means done in the presence of free oxygen.

"Agency" means the Illinois Environmental Protection Agency.

"Agronomic Rates" means the application of not more than 20 tons per acre per year, except that the Agency may allow a higher rate for individual sites where the owner or operator has demonstrated to the Agency that the site's soil characteristics or crop needs require a higher rate. (Section 21(q) of the Act.)

"Anaerobic composting" means a process managed and maintained to promote maturation of organic materials by microbial action in the absence of free oxygen within the gas in the composting material.

"Bad Load" means a load of material that would, if accepted, cause or contribute to a violation of the Act, even if managed in accordance with these regulations and any facility permit conditions.

"Batch" means material used to fill the vessel of a contained composting system.

"Board" means the Illinois Pollution Control Board.

"Bulking agent" means a material used to increase porosity, to improve aeration, or to absorb moisture from decomposing waste.

"Closure" means the process of terminating composting facility operations pursuant to applicable Sections in this Part, 35 Ill. Adm. Code 831 and 35

Ill. Adm. Code 832, beginning upon permit expiration without filing for renewal, intentional cessation of waste acceptance or cessation of waste acceptance for greater than 180 consecutive days, unless an alternative time frame is approved in a closure plan.

"Commercial activity" means any activity involving the transfer of money.

"Compost" means the humus-like product of the process of composting waste, which may be used as a soil conditioner. (Section 3.70 of the Act.)

"Composting" means the biological treatment process by which microorganisms decompose the organic fraction of the waste, producing compost. (Section 3.70 of the Act.) Land application is not composting.

"Composting area" means the area of a composting facility in which waste, composting material or undistributed end-product compost is unloaded, stored, staged, stockpiled, treated or otherwise managed.

"Composting material" means solid wastes that are in the process of being composted.

"Composting operation" means an enterprise engaged in the production and distribution of end-product compost.

"Contained composting process" means a method of producing compost in which the composting material is confined or contained in a vessel or structure which both protects the material from the elements and controls the moisture and air flow.

"Designated use compost" means end-product compost which does not meet the standards set forth in Section 830.503 of this Part.

"Dewar flask" means an insulated container used especially to store liquefied gases, having a double wall, an evacuated space between the walls and silvered surfaces.

"Domestic sewage" means waste water derived principally from dwellings, business or office buildings, institutions, food service establishments, and similar facilities.

"End-product compost" means organic material that has been processed to maturity and classified as general use compost or designated use compost in accordance with this Part.

"Facility" means any landscape waste compost facility.

"Garbage" is waste resulting from the handling, processing, preparation, cooking, and consumption of food, and wastes from the handling, processing, storage, and sale of produce. (Section 3.11 of the Act.)

"Garden compost operation" means an operation which (1) has no more than 25 cubic yards of landscape waste, composting material or end-product compost on-site at any one time and (2) is not engaging in commercial activity.

"General use compost" means end-product compost which meets the standards set forth in Section 830.503 of this Part.

"Groundwater" means underground water which occurs within the saturated zone and geologic materials where the fluid pressure in the pore space is equal to or greater than atmospheric pressure. (Section 3(b) of the Groundwater Protection Act [415 ILCS 55].)

"In-vessel composting" means a diverse group of composting methods in which composting materials are contained in a building, reactor, or vessel.

"In-vessel continuous feed system" means a method of producing compost in which the raw composting material is delivered on a continuous basis to a reactor.

"Insulating material" means material used for the purpose of preventing the passage of heat out of a windrow or other pile. Insulating material includes, but is not limited to, end-product compost, foam, or soil. Insulating material does not include composting material that has not reached maturity.

"Land application" means the spreading of waste, at an agronomic rate, as a soil amendment to improve soil structure and crop productivity.

"Landscape Waste" means all accumulations of grass or shrubbery cuttings, leaves, tree limbs and other materials accumulated as the result of the care of lawns, shrubbery, vines and trees. (Section 3.20 of the Act.)

"Landscape waste compost facility" means an entire landscape waste composting operation, with the exception of a garden compost operation.

"Landscape waste leachate" means a liquid containing any of the following: waste constituents originating in landscape waste; landscape waste composting material; additives; and end-product compost.

"Maturity" means a state which is characteristically: generally dark in color; humus-like; crumbly in texture; not objectionable in odor;

resembling rich topsoil; and bearing little resemblance in physical form to the waste from which it is derived.

"Modification" means a permit revision authorizing either an extension of the current permit term or a physical or operational change at a composting facility which involves different or additional processes, increases the capacity of the operation, requires construction, or alters a requirement set forth as a special condition in the existing permit.

"MPN" means most probable number, a mathematical inference of the viable count from the fraction of cultures that fail to show growth in a series of tubes containing a suitable medium.

"Nearest residence" means an occupied dwelling and adjacent property commonly used by inhabitants of the dwelling.

"Non-compostable material" means items not subject to microbial decomposition under conditions used to compost waste.

"Off-site" means not on-site.

"On-farm landscape waste compost facility" means a landscape compost facility which satisfies all of the criteria set forth in Section 830.106.

"On-site" means on the same or geographically contiguous property which may be divided by public or private right-of-way, provided the entrance and exit between the properties is at a crossroads intersection and access is by crossing as opposed to going along the right-of-way. Noncontiguous properties owned by the same person but connected by a right-of-way which the owner controls and to which the public does not have access are also considered on-site property.

"On-site commercial facility" means a landscape waste compost facility at which the landscape waste composted is generated only on-site and the end-product is offered for off-site sale or use.

"On-site facility" means a landscape waste compost facility at which the landscape waste composted is generated only on-site and the end-product is not offered for off-site sale or use.

"Open composting process" means a method of producing compost without protecting the compost from weather conditions.

"Operator" means the individual, partnership, co-partnership, firm, company, corporation, association, joint stock company, trust, estate, political subdivision, State agency, or any other legal entity that is

responsible for the operation of the facility. The property owner, if different from the operator, shall be deemed the operator in the event that the operator abandons the facility.

"Origin" means the legal entity from which a substance has been obtained.

"Processing into windrows or other piles" means placement of waste materials into windrows or other piles of a size, structure, and mixture adequate to begin the composting process.

"Property owner" means the owner of the land on which the composting operation is located or proposed to be located, except that if the operator has obtained a lease for at least the duration of the proposed facility permit plus one year, then "property owner" shall mean the operator of the composting operation. "Registered professional engineer" means a person registered under the Illinois Professional Engineering Practice Act [225 ILCS 325].

"Relatively impermeable soil" means a soil located above the water table that has a hydraulic conductivity no greater than 1 x 10(-5) centimeters per second for a thickness of at least one foot.

"Runoff" means water resulting from precipitation that flows overland before it enters a defined stream channel, excluding any portion of such overland flow that infiltrates into the ground before it reaches the stream channel, and any precipitation that falls directly into a stream channel.

"Runon" means any rainwater, leachate or other liquid that drains over land onto any part of a facility.

"Salvaging" means the return of waste materials to beneficial use.

"Salvaging operations" means those activities that recover waste for beneficial use, so long as the activity is done under the supervision of the compost facility's operator, does not interfere with or otherwise delay the operations of the compost facility, and results in the removal of all materials for salvaging from the compost facility daily or separation by type and storage in a manner that does not create a nuisance, harbor vectors, or cause an unsightly appearance.

"Septage" means the liquid portions and sludge residues removed from septic tanks.

"Sewage" means water-carried human and related waste from any source.

"Site" means any location, place, tract of land, and facilities, including but

not limited to buildings, and improvements used for purposes subject to regulation or control by the *Act* and 35 Ill. Adm. Code 830, 831 and 832. (Section 3.43 of the Act.)

"Sludge" means any solid, semisolid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility, or any other such waste having similar characteristics and effects. (Section 3.44 of the Act.)

"Special waste" means any industrial process waste, pollution control waste or hazardous waste, except as determined pursuant to Section 22.9 of the Act and 35 Ill. Adm. Code 808. (Section 3.45 of the Act.)

"Stability" means a state in which the compost decomposes slowly even under conditions favorable for microbial activity.

"Staging area" means an area within a facility where raw material for composting is processed, temporarily stored in accordance with the standards set forth in 830.205(a)(1)(A), loaded or unloaded.

"Surface water" means all tributary streams and drainage basins, including natural lakes and artificial reservoirs, which may affect a specific water supply above the point of water supply intake. Such term does not include treatment works (such as a retention basin).

"Ten (10) year, 24 hour precipitation event" means a precipitation event of 24 hour duration with a probable recurrence interval of once in 10 years.

"20-20-20 NPK" means a fertilizer containing 20 percent total nitrogen (N), 20 percent available phosphoric acid (P[2]O[5]) and 20 percent soluble potash (K[2]O).

"Unacceptable load" means a load containing waste a facility is not authorized to accept.

"Underground water" means all water beneath the land surface.

"Vector" means any living agent, other than human, capable of transmitting, directly or indirectly, an infectious disease.

"Water table" means the boundary between the unsaturated and saturated zones of geologic materials or the surface on which the fluid pressure in the pores of a porous medium is exactly at atmospheric pressure.

"Windrow" means an elongated pile of solid waste or composting material constructed to promote composting.

"Woody landscape waste" means plant material greater than two inches in diameter.

Section 830.103 Incorporations by Reference

The Board incorporates the following material by reference. These incorporations include no later amendments or editions.

a) American Public Health Association et al., 1015 Fifteenth Street, N.W., Washington, D.C. 20005, "Standard Methods for the Examination of Water and Wastewater," 18th Edition, 1992.

b) "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," Third Edition (September, 1986), as amended by Revision I (December, 1987), Final Update I (November, 1992) and Proposed Update II (July, 1992), United States Environmental Protection Agency, Washington, D.C., EPA Publication Number SW-846.

c) North Dakota Agricultural Experiment Station, North Dakota State University, Fargo, North Dakota 58105, "Recommended Chemical Soil Test Procedures for the North Central Region," North Central Regional Publication No. 221 (Revised), Bulletin No. 499 (Revised), October, 1988.

Section 830.104 Exempt Operations and Activities

a) The requirements of this Part shall not apply to a garden compost operation as defined at Section 830.102.

b) The testing requirements set forth in Subpart E of this Part *shall not apply to end-product compost used as a daily cover or vegetative amendment in the final layer* of a landfill. (Section 22.33(c) of the Act.)

c) Notwithstanding subsection (b) of this Section, end-product compost shall not be used as daily cover or vegetative amendments in the final layer of a landfill unless such use is approved in the landfill's permit.

Section 830.105 Permit-Exempt Facilities and Activities

The following types of facilities or activities are not required to have a permit pursuant to this Part:

a) *A landscape waste composting operation for landscape wastes generated by such* facility's *own activities which are stored, treated or disposed of within the site where such wastes are generated* (Section 21(q)(1) of the Act);

b) *Applying landscape waste or composted landscape waste at agronomic rates* (Section 21(q)(2) of the Act); *or*

c) *A landscape waste composting facility on a farm which meets all of* the criteria set forth at Section 830.106 (Section 21(q)(3) of the Act).

Section 830.106 On-Farm Landscape Waste Compost Facility

a) A landscape compost operation on a farm must satisfy all of the following criteria:

1) *The composting facility is operated by the farmer on property on which the composting material is utilized, and the composting facility constitutes no more than 2% of the property's total acreage, except that the Agency may allow a higher percentage for individual sites where the owner or operator has demonstrated to the Agency that the site's soil characteristics or crop needs require a higher rate*;

2) *The property on which the composting facility is located, and any associated property on which the compost is used, is principally and diligently devoted to the production of agricultural crops and is not owned, leased or otherwise controlled by any waste hauler or generator of nonagricultural compost materials, and the operator of the composting facility is not an employee, partner, shareholder, or in any way connected with or controlled by any such waste hauler or generator*;

3) *All compost generated by the composting facility is applied at agronomic rates and used as mulch, fertilizer or soil conditioner on land actually farmed by the person operating the composting facility, and the finished compost is not stored at the composting site for a period longer than 18 months prior to its application as mulch, fertilizer, or soil conditioner*; and

4) *All composting material was placed more than 200 feet from the nearest potable water supply well, was placed outside the boundary of the 10-year floodplain or on a part of the site that is floodproofed, was placed at least 1/4 mile from the nearest residence (other than a residence located on the same property as the facility) and there are not more than 10 occupied non-farm residences within 1/2 mile of the boundaries of the site on the date of application, and was placed more than 5 feet above the water table*.

b) *The owner or operator, by January 1, 1991 (or the January 1 following commencement of operation, whichever is later) and January 1 of each year thereafter* shall:

1) *register the site with the Agency*, by obtaining an Illinois Inventory Identification Number from the Agency;

2) File a report with the Agency, on a form provided by the Agency, certifying at a minimum:

A) *The volume of composting material received and used at the site* during the previous calendar year; and

B) The volume of compost produced during the previous calendar year;

C) That the facility is in compliance with the requirements set forth in subsection (a) of this Section. (Section 21 of the Act)

Section 830.107 Compliance Dates

a) All operators of existing facilities shall comply with the applicable minimum performance standards and recordkeeping requirements set forth in Section 830.202 of this Part by the effective date of these regulations. (Section 21(q) of the Act.)

b) By November 10, 1995, all operators of existing facilities shall certify compliance with the applicable provisions set forth in Sections 830.206, 830.210, 830.211, 830.504 and 830.507. Certification of compliance with Sections 830.206, 830.210, 830.211, 830.504 and 830.507 shall be done by completing and filing with the Agency a form provided by the Agency.

c) By November 10, 1995, all operators of existing permitted facilities shall certify compliance with Subpart F of this Part. Such certification of compliance shall be done as specified in Section 830.606.

d) Each existing permitted facility shall, in addition, remain in compliance with all conditions set forth in its current facility permit, pending permit expiration or modification authorizing construction, resulting in an increase in capacity, transferring ownership or extending the current permit term.

e) Upon application either for permit renewal or for modification authorizing construction, resulting in an increase in capacity, extending the current permit term or initiated by the Agency pursuant to 35 Ill. Adm. Code 832.201, an existing permitted facility shall demonstrate, as part of the permit application, compliance with all provisions of this Part applicable to permitted facilities.

Section 830.108 Severability

If any provision of this Part is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of either this Part as a whole or any Subpart, Section, subsection, sentence or clause thereof not adjudged invalid.

SUBPART B: STANDARDS FOR OWNERS AND OPERATORS OF LANDSCAPE WASTE COMPOST FACILITIES

Section 830.201 Scope and Applicability

a) Garden compost facilities are exempt from all the requirements of Part 830.

b) On-site landscape waste compost facilities are subject to the location standards in Section 830.203.

c) On-site commercial landscape waste compost facilities are subject to the minimum performance standards in Section 830.202, the location standards in Section 830.203, and the end-product quality standards in Subpart E of this Part.

d) On-farm landscape waste compost facilities which satisfy all the requirements in Section 830.106(a) are subject to the minimum performance standards in Section 830.202.

e) Permitted landscape waste compost facilities are subject to the minimum performance standards in Section 830.202, the location standards in Section 830.203, the additional operating standards and requirements in Sections 830.204 through 830.213, the end-product quality standards of Subpart E of this Part and the financial assurance requirements of Subpart F of this Part.

Section 830.202 Minimum Performance Standards and Reporting Requirements for Landscape Waste Compost Facilities

With the exception of on-site landscape waste compost facilities, all landscape waste compost facilities subject to this Part shall comply with the following requirements:

a) The composting material shall not contain any domestic sewage, sewage sludge or septage.

b) Any bulking agent used which is otherwise a waste as defined at Section 3.53 of the Act, other than landscape waste, may only be used as authorized by the Agency in writing or by permit.

c) The operator shall take specific measures to control odors and other sources of nuisance so as not to cause or contribute to a violation of the Act. Specific measures an operator should take to control odor include but are not limited to: adherence to the contents of the odor minimization plan required at subsection (e). Specific measures an operator should take to control other sources of nuisance include preventative measures to control litter, vectors, and dust and noise generated from truck or equipment operation.

d) The operator shall have available for inspection a *plan for the intended* purposes of end-product compost and a contingency plan for handling end-product compost and composting material that does not meet the general use compost standards set forth in Section 830.503 of this Part. Such a plan may include, but is not limited to, consideration of the following: on-site usage; identification of potential buyers including but not limited to gardeners, landscapers, vegetable farmers, turf growers, operators of golf courses, and ornamental crop growers; maintaining consistent product quality for such factors as stability, color, texture, odor, pH, and man-made inerts; and removal of end-product compost that cannot be used in the expected manner because it does not meet the general use compost standards. (Section 22.33(a)(4) of the Act.)

e) The operator shall have a plan for minimizing odors. The plan must include:

1) Specifications of a readily-available supply of bulking agents, additives or odor control agents;
2) Procedures for avoiding delay in processing and managing landscape waste during all weather conditions;
3) Methods for taking into consideration the following factors prior to turning or moving composting material:
   A) Time of day;
   B) Wind direction;
   C) Percent moisture;
   D) Estimated odor potential; and
   E) Degree of maturity.

f) Landscape waste must be processed within five days after receipt into windrows or other piles which promote proper conditions for composting. Incoming leaves, brush or woody landscape waste may be stored in designated areas for use as a carbon source and bulking agent, rather than being processed into windrows or other piles.

g) The facility must be designed and constructed so that runon is diverted around the composting area. The runoff from the facility resulting from precipitation less than or equal to the 10 year, 24 hour precipitation event must be controlled so as not to cause or contribute to a violation of the Act.

h) The facility must be constructed and maintained to have an accessible clear space between windrows or other piles, suitable for housekeeping operations, visual inspection of piling areas and fire fighting operations.

i) Except for on-farm landscape waste compost facilities, the operator shall post permanent signs at each entrance, the text of which specifies in letters not less than three inches high:
   1) The name and mailing address of the operation;
   2) The operating hours;
   3) Materials which can be accepted; and
   4) The statement, "COMPLAINTS CONCERNING THIS FACILITY CAN BE MADE TO THE FOLLOWING PERSONS, followed by the name and telephone number of the operator, and the name and telephone number of the Bureau of Land, Illinois Environmental Protection Agency, Springfield, Illinois.

j) General use compost, if offered for sale or use, must meet the performance standards set forth in Section 830.503.

k) Reporting Requirements.
   1) The operator of any facility required, pursuant to 35 Ill. Adm. Code 831, to have a permit *shall submit a written annual statement to the Agency*, on a form provided by the Agency, *on or before April 1 of each year that includes*:
      A) *An estimate of the amount of material, in tons, received for composting* in the previous calendar year (Section 39(m) of the Act);

B) An estimate of the amount and disposition of compost material (i.e., end-product compost, chipped/shredded brush) in the previous calendar year; and

C) A Composting Facility Financial Assurance Plan Compliance Certification in accordance with the requirements set forth in Section 830.606.

2) For any permit-exempt facility with over 100 cubic yards of composting material on-site at one time, a report must be filed by April 1 of each year with the Agency, on a form provided by the Agency, stating, at a minimum, the facility location, an estimate of the amount of material, in cubic yards or tons, received for composting in the previous calendar year, and the total amount of end-product compost still on-site, used or sold during the previous calendar year.

l) Closure.

1) Unless otherwise authorized in a facility permit, all landscape waste, composting material, end-product compost, and additives must be removed from the facility within 180 days following the beginning of closure.

2) An operator of a facility regulated under this Subpart shall close the facility in a manner which:

A) Minimizes the need for further maintenance; and

B) Controls, minimizes or eliminates the release of landscape waste, landscape waste constituents, landscape waste leachate, and composting constituents to the groundwater or surface waters or to the atmosphere to the extent necessary to prevent threats to human health or the environment.

3) By April 1 of the year following completion of closure, the operator of a facility required to report pursuant to subsection (k)(2) of this Section shall file a report with the Agency verifying that closure was completed in accordance with this Section in the previous calendar year.

m) Odor complaints.

1) Except for on-farm landscape waste compost facilities, for every odor complaint received, the operator shall:

A) Record and report to the Agency within 24 hours after receiving the complaint, the date and time received, the name of complainant, the address and phone number of complainant, if volunteered upon request, and the name of the personnel receiving the complaint.

B) Record the date, time, and nature of any action taken in response to an odor complaint, and report such information to the Agency within 7 days after the complaint.

Section 830.203 Location Standards for Landscape Waste Compost Facilities

a) With the exception of on-farm landscape waste operations, all landscape waste compost facilities subject to this Part shall comply with the following:

1) The composting area of the facility must include *a setback of at least 200 feet from the nearest potable water supply well*. (Section 39(m) of the Act)

2) The composting area of the facility must be *located outside the boundary of the 10-year floodplain or the site shall be floodproofed*. (Section 39(m) of the Act)

3) The composting area of the facility must be *located so as to minimize incompatibility with the character of the surrounding area, including at least a 200 foot setback from any residence, and in the case of a facility that is developed or the permitted composting area of which is expanded after November 17, 1991, the composting area* shall be *located at least 1/8 mile from the nearest residence (other than a residence located on the same property as the facility*). (Section 39(m) of the Act) In addition, in the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, the composting area shall be located at least 1/8 mile from the property line of each of the following:

A) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year;

B) Primary and secondary schools and adjacent areas that the school uses for recreation; and

C) Any facility for child care licensed under Section 3 of the Child Care Act of 1969 [225 ILCS 10/3]; preschools; and adjacent areas that the facility or preschool uses for recreation.

4) If, at the time the facility permit application is deemed complete by the Agency pursuant to 35 Ill. Adm. Code 832, the composting area of the facility is located within 1/4 mile of the nearest off-site residence or within 1/2 mile of the nearest platted subdivision

containing a residence, or if more than 10 residences are located within 1/2 mile of the boundaries of the facility, in order to minimize incompatibility with the character of the surrounding area, landscape waste must be processed by the end of the operating day on which the landscape waste is received into windrows, other piles or a contained composting system providing proper conditions for composting.

5) The composting area of the facility must be designed *to prevent any compost material from being placed within 5 feet of the water table, to adequately control runoff from the site, and* to *collect and manage any* landscape waste *leachate that is generated on the site*. (Section 39(m) of the Act) Compliance with the water table distance requirement may be demonstrated by either of the following means:

   A) Using published water table maps or other published documentation to establish the location of the water table in relation to site elevation; or

   B) Actual measuring of the water table elevation at least once per month for three consecutive months.

6) The facility must meet all requirements under the Wild and Scenic Rivers Act (16 USC 1271 et seq.).

7) The facility must not restrict the flow of a 100-year flood, result in washout of landscape waste from a 100-year flood, or reduce the temporary water storage capacity of the 100-year floodplain, unless measures are undertaken to provide alternative storage capacity, such as lagoons, holding tanks, or provision of drainage around structures at the facility.

8) The facility must not be located in any area where it may pose a threat of harm or destruction to the features for which:

   A) An irreplaceable historic or archaeological site has been listed pursuant to the National Historic Preservation Act (16 USC 470 et seq.) or the Illinois Historic Preservation Act [20 ILCS 3410];

   B) A natural landmark has been designated by the National Park Service or the Illinois State Historic Preservation Office; or

C) A natural area has been designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act [525 ILCS 30].

9) The facility must not be located in any area where it may jeopardize the continued existence of any designated endangered species, result in the destruction or adverse modification of the critical habitat for such species, or cause or contribute to the taking of any endangered or threatened species of plant, fish or wildlife listed pursuant to the Endangered Species Act (16 USC 1531 et seq.) or the Illinois Endangered Species Protection Act [520 ILCS 10].

b) A facility's compliance with the location standards set forth in subsection (a) of this Section shall be determined at the time described below:

1) For a facility that is required to obtain a permit under Section 21(d) of the Act, at the time that a complete permit application for a new or expanded facility is filed with the Agency under 35 Ill. Adm. Code 832; or

2) For a facility that is not required to obtain a permit under Section 21(d) of the Act, at the time that construction of the new or expanded facility begins.

(Source: Amended at 22 Ill. Reg. 21052, effective November 23, 1998)

Section 830.204 Additional Stormwater and Landscape Waste Leachate Controls at Permitted Landscape Waste Compost Facilities

In addition to the leachate control requirement set forth in Section 830.202(g), all permitted landscape waste compost facilities must comply with the following:

a) Stormwater or other water which comes into contact with landscape waste received, stored, processed or composted, or which mixes with landscape waste leachate, must be considered landscape waste leachate and must be collected and reused in the process, properly disposed of off-site, or treated as necessary prior to discharge off-site to meet applicable standards of 35 Ill. Adm. Code Subtitle C.

b) Ponding of landscape waste leachate within the facility must be prevented, except to the extent done by design and approved in the facility permit.

c) Soil surfaces used for composting must be allowed to dry periodically in order to promote aerobic conditions in the soil subsurface.

Section 830.205 Additional Operating Standards for Permitted Landscape Waste Compost Facilities

All permitted landscape waste compost facilities must comply with the following operating standards, in addition to those set forth in Sections 830.202 and 830.204:

a) Composting Process

1) All permitted landscape waste compost facilities must meet the following composting process standards:

A) Landscape waste must be processed within 24 hours after receipt at the facility into windrows, other piles or a contained composting system providing proper conditions for composting. Incoming leaves, and brush or woody landscape waste, may be stored in designated areas for use as a carbon source and bulking agent, if so provided as a permit condition, rather than being processed in windrows or other piles.

B) Unless the facility is designed for anaerobic composting, the operator shall take measures to adjust the oxygen level, as necessary, to promote aerobic composting. Aeration intensity must be altered to suit the varying oxygen requirements that different landscape wastes may have.

C) The operator shall take measures to maintain the moisture level of the composting material within a range of 40% to 60% on a dry weight basis.

D) The staging area must be adequate in size and design to facilitate the unloading of landscape waste from delivery vehicles and the unobstructed maneuvering of vehicles and other equipment.

E) Neither landscape waste nor composting material may be mixed with end-product compost ready to be sold or offered for use. This prohibition shall not apply to the use of end-product compost as an amendment to composting material.

F) The facility must have sufficient equipment and personnel to process incoming volumes of landscape waste accepted within the time frames required in this Section, and sufficient capacity to handle projected incoming volumes of landscape waste.

G) The operator shall obtain written authorization from the Agency to use any additive, other than water, prior to its use. Unless otherwise authorized any additive, or combination of additives, other than water, must not exceed 10%, by volume, of the composting material.

2) An operator of a permitted landscape waste compost facility using an open composting process shall turn each windrow or other pile at least four times per year and not less than once every six

months. This provision does not apply to composting systems designed for anaerobic conditions.

3) An operator of a permitted landscape waste compost facility using a contained composting process shall have mechanisms to control moisture, air flow and air emissions. These mechanisms must be operated and maintained throughout the landscape waste composting process as specified in any permit required pursuant to 35 Ill. Adm. Code 831.

4) Operators of permitted facilities required to process composting material to further reduce pathogens shall comply with the applicable thermal processing requirement among the following:

A) If the facility uses a windrow composting process, during a 15 consecutive day period the temperature throughout each windrow must be maintained at 55°C or greater and, during the same period, each windrow must be turned a minimum of 5 times;

B) If the facility uses an aerated static pile composting process, the composting material must be covered with 6 to 12 inches of insulating material, and the temperature throughout each pile material must be maintained at 55°C or greater for 3 consecutive days; and

C) If the facility uses an in-vessel composting process, the temperature of the composting material throughout the mixture must be maintained at 55°C or greater for 3 consecutive days.

b) Composting Surface

1) Open Composting Processes

A) Composting areas must be:

i) located on relatively impermeable soils, as demonstrated by actual measurement;

ii) located on a base with resistance to saturated flow equivalent to the resistance of relatively impermeable soil; or

iii) subject to an early detection and monitoring program, pursuant to subsection (m)(3) of this Section.

B) The composting surface must be constructed and maintained to allow:

i) Diversion of runon waters away from the landscape waste and compost;

ii) Management of runoff waters and landscape waste leachate in accordance with Section 830.204; and

iii) Facility operation during all weather conditions.

C) The surface of the landscape waste composting area of the facility must be sloped at two percent or greater unless an alternative water management system to promote drainage

and to prevent surface water ponding is approved in the facility permit.

2) Contained Composting Processes

A) Composting areas at facilities at which composting material or leachate comes into contact with an open surface must be:

i) Located on relatively impermeable soils, as demonstrated by actual measurement;

ii) located on a base with resistance to saturated flow equivalent to the resistance of relatively impermeable soil; or

iii) Subject to an early detection and groundwater monitoring program, pursuant to subsection (m)(4) of this Section.

B) The composting surface must support all structures and equipment.

c) Utilities. All utilities necessary for safe operation in compliance with the requirements of this Part, including, but not limited to, lights, power, water supply and communications equipment, must be available at the facility at all times.

d) Maintenance. The operator shall maintain and operate all systems and related appurtenances and structures in a manner that facilitates proper operations in compliance with the requirements of this Part. If a breakdown of equipment occurs, standby equipment must be used or additional equipment brought on site as necessary to comply with the requirements of this Part and any pertinent permit conditions.

e) Open Burning. Open burning is prohibited except in accordance with 35 Ill. Adm. Code 200 through 245.

f) Dust Control. The operator shall implement methods for controlling dust in accordance with Subparts B and K of 35 Ill. Adm. Code 212.

g) Noise Control. The facility must be designed, constructed, operated and maintained so as not to cause or contribute to a violation of 35 Ill. Adm. Code 900 through 905 or of Section 24 of the Act.

h) Vector Control. Insects, rodents, and other vectors must be controlled so as not to cause or contribute to a violation of the Act.

i) Fire Protection. The operator shall institute fire protection measures including, but not limited to, maintaining a supply of water and radio or telephone access to the nearest fire department. Fire extinguishers must be provided at two separate locations within the facility.

j) Litter Control. The operator shall control litter at the facility. At a minimum:

1) The operator shall patrol the facility daily to check for litter accumulation. All litter must be collected in a secure container for later disposal; and

2) Litter must be confined to the property on which the facility is located. At the conclusion of each day of operation, any litter

strewn beyond the confines of the facility must be collected and disposed of at a facility approved to receive such waste in accordance with the applicable Board regulations.

k) Management of Non-compostable Wastes. The operator shall develop management procedures for collection, containment and disposal of non-compostable wastes received at the facility. Disposal must be at a facility approved to receive such waste in accordance with applicable Board regulations at 35 Ill. Adm. Code 810 through 815.

l) Mud Tracking. The operator shall implement measures, such as the use of wheel washing units or rumble strips, to prevent tracking of mud by delivery vehicles onto public roadways.

m) Monitoring

1) At a minimum, for batch, windrow and pile systems:

A) The temperature of each batch, windrow or pile of composting material must be monitored on a weekly basis;

B) The moisture level in each batch, windrow or pile of composting material must be monitored once every two weeks; and

C) For aerobic composting, the oxygen level of each batch, windrow or pile of composting material must be monitored weekly.

2) At a minimum, for in-vessel continuous feed systems:

A) The temperature of the composting material must be monitored daily;

B) The moisture of the composting material must be monitored daily, unless otherwise authorized by the Agency in a facility permit; and

C) For aerobic composting by means of an in-vessel continuous feed system, the oxygen level of the composting material must be monitored daily.

3) Early detection and groundwater monitoring, if required pursuant to Section 830.205(b)(1)(A) or Section 830.205(b)(2)(A), shall be done in accordance with 35 Ill. Adm. Code 830.Appendix A.

Section 830.206 Operating Plan for Permitted Landscape Waste Compost Facilities

All activities at a permitted facility associated with composting must be conducted in accordance with an operating plan containing, at a minimum, the following information:

a) Designation of personnel, by title, responsible for operation, control and maintenance of the facility;

b) A description of the anticipated quantity and variation throughout the year of waste to be received;

c) Methods for measuring incoming waste;

d) Methods to control the types of waste received, in accordance with Section 830.209, and methods for removing, recovering and disposing of

non-compostables, in accordance with Sections 830.205(k), 830.207 and 830.209;

e) Methods to control traffic and to expedite unloading in accordance with Section 830.205(a)(1)(D);

f) Management procedures that will be used in composting, which must include:

1) A description of any treatment the wastes will receive prior to windrowing (e.g., chipping, shredding) and the maximum length of time required to process each day's receipt of waste into windrows;

2) The specifications to which the windrows will be constructed (width, height, and length) and calculation of the capacity of the facility;

3) A list of additives, including the type, amount and origin, that will be used to adjust moisture, temperature, oxygen transfer, pH, carbon to nitrogen ratio, or biological characteristics of the composting material, and rates and methods of application of such additives; and

4) An estimate of the length of time necessary to complete the composting process.

g) Methods to minimize odors. In addition to the requirements specified in 830.202(e), the operating plan must include:

1) A management plan for bad loads;

2) A demonstration that the processing and management of anticipated quantities of landscape waste can be accomplished during all weather conditions;

3) Procedures for receiving and recording odor complaints, investigating immediately in response to any odor complaints to determine the cause of odor emissions, and remedying promptly any odor problem at the facility;

4) Additional odor-minimizing measures, which may include the following:

A) Avoidance of anaerobic conditions in the composting material;

B) Use of mixing for favorable composting conditions;

C) Formation of windrows or other piles into a size and shape favorable to minimizing odors; and

D) Use of end-product compost as cover to act as a filter during early stages of composting.

h) Methods to control stormwater and landscape waste leachate, in accordance with Section 830.204;

i) Methods to control noise, vectors and litter, in accordance with Section 830.205;

j) Methods to control dust emissions, in accordance with Section 830.205(f), which must include:

1) Consideration of the following factors prior to turning or moving the composting material:

A) Time of day;

B) Wind direction;
C) Percent moisture;
D) Estimated emission potential; and
E) Degree of maturity; and

2) Maintenance of roads, wetting of roads, use of dust control agents, or any combination of these methods;

k) Methods for monitoring temperature, oxygen level and moisture level of the composting material, in accordance with Section 830.205(m);

l) Methods for adjusting temperature, oxygen level and moisture level of the composting material, in accordance with Section 830.205(a);

m) Recordkeeping and reporting procedures required pursuant to Section 830.211; and

n) Methods to obtain composite samples and test end-product compost to demonstrate compliance with Subpart E of this Part.

Section 830.207 Salvaging at Permitted Landscape Waste Compost Facilities

a) Salvaging operations at permitted landscape waste compost facilities must not interfere with the operation of the landscape waste facility or result in a violation of any standard in this Part.

b) All salvaging operations must be performed in a safe and sanitary manner in compliance with the requirements of this Part.

c) Salvageable materials:

1) May be accumulated on-site by the operator, provided they are managed so as not to create a nuisance, harbor vectors, cause malodors, or create an unsightly appearance; and

2) Must not be accumulated in a manner meeting the definition of a waste pile.

Section 830.208 Access Control at Permitted Landscape Waste Compost Facilities

The operator of a permitted landscape waste compost facility shall implement controls to limit unauthorized access, in order to prevent random dumping and to ensure safety at the facility.

Section 830.209 Load Checking at Permitted Landscape Waste Compost Facilities

a) Each load received at a permitted landscape waste compost facility must be inspected, upon receipt, for its acceptability at the facility and must be visually checked, prior to processing, for noncompostable waste.

b) The facility must reject unacceptable loads.

Section 830.210 Personnel Training for Permitted Landscape Waste Compost Facilities

a) The operator of a permitted landscape waste compost facility shall provide training to all personnel prior to initial operation of a composting facility. In addition, annual personnel training shall be provided, which must include, at a minimum, a thorough explanation of the operating procedures for both normal and emergency situations.

b) New employees shall be trained, prior to participating in operations at the facility, in facility operations, maintenance procedures, and safety and emergency procedures relevant to their employment.

c) The operator shall have personnel sign an acknowledgement stating that they have received the training required pursuant to this Section.

d) The facility operating plan required pursuant to Section 830.206 must be made available and explained to all employees.

Section 830.211 Recordkeeping for Permitted Landscape Waste Compost Facilities

a) Copies of the facility permit, design plans, operating plan, and any required reports must be kept at the facility, or at a definite location specified in the operating plan or permit, so as to be available during inspection of the facility.

b) The operator shall record the following information:
   1) The quantity of each load of landscape waste received;
   2) The origin, type and quantity of any additive accepted, when received at the facility;
   3) The type and quantity of any additive used in the composting process (water added during composting need not be quantified), as quantified based on a monthly review of additives remaining;
   4) The dates of turning of each windrow or other pile;
   5) All monitoring data required pursuant to a facility permit;
   6) Conditions evaluated pursuant to Section 830.206;
   7) For any odor complaint received, the information collected pursuant to Section 830.202(m);
   8) Details of all incidents that require implementation of the facility's contingency plan, in accordance with Section 830.212, and methods used to resolve them;
   9) Records pertaining to sampling and testing, as follows:
      A) Locations in the composting area from which samples are obtained;
      B) Number of samples taken;
      C) Volume of each sample taken;
      D) Date and time of collection of samples;
      E) Name and signature of person responsible for sampling;

F) Name and address of the laboratory receiving samples, if applicable; and

G) Signature of the person responsible for sample analysis.

10) The daily quantity of each type of end-product compost removed from the facility, according to the end-product compost classifications provided in Subpart E of this Part; and

11) Verification that requisite personnel training has been done, in accordance with Section 830.210.

c) The operator shall keep dated copies of the end-product compost analyses required pursuant to Section 830.504.

d) The records required pursuant to this Section shall be made available during normal business hours for inspection and photocopying by the Agency. Such records must be kept for a period of three years, subject to extension upon written request by the Agency and automatic extension during the course of any enforcement action relating to the facility. Records must be sent to the Agency upon request.

Section 830.212 Contingency Plan for Permitted Landscape Waste Compost Facilities

a) A contingency plan must be established, addressing the contingencies set forth in Section 830.202(c) and the following additional contingencies:

1) Equipment breakdown;

2) Odors;

3) Unacceptable waste delivered to the facility;

4) Groundwater contamination;

5) Any accidental release of special waste; and

6) Conditions such as fires, dust, noise, vectors, power outages and unusual traffic conditions.

b) The facility contingency plan must be available on-site and implemented as necessary.

Section 830.213 Closure Plan for Permitted Landscape Waste Compost Facilities

a) A written closure plan must be developed which contains, at a minimum, the following:

1) Steps necessary for the premature final closure of the facility under circumstances during its intended operating permit term when the cost of closure would be the greatest;

2) Steps necessary for, and a schedule for the completion of, the routine final closure of the facility at the end of its intended operating life; and

3) Steps necessary to prevent damage to the environment during temporary suspension of landscape waste acceptance if the facility

permit allows temporary suspension of landscape waste acceptance at the facility without initiating final closure.

b) Until completion of closure has been certified, the operator shall maintain a copy of the closure plan at the facility or at a definite location, specified in the facility permit, so as to be available during inspection of the facility.

c) An operator of a facility shall develop and file a revised closure plan upon modification of the operations of the facility which affect the cost of closure of the facility or any portion thereof, which include, but are not limited to:

1) A temporary suspension of landscape waste acceptance at the facility; or

2) An increase in the design capacity at the facility to process landscape waste.

d) The operator shall initiate implementation of the closure plan within 30 days following the beginning of closure.

e) Not later than 30 days following the beginning of closure, the operator shall post signs, easily visible at all access gates leading into the facility. The text of such signs must read, in letters not less than three inches high: "This facility is closed for all composting activities and all receipt of landscape waste materials. No dumping allowed. Violators will be prosecuted." Such signs must be maintained in legible condition until certification of completion of closure is issued for the facility by the Agency.

f) Notice of Closure. The operator shall send notice of closure to the Agency within 30 days following the beginning of closure. A compost closure report must be submitted to the Agency, on a form provided by the Agency, which must cover the time elapsed since the end of the last annual report period.

g) Certificate of Completion of Closure.

1) Upon completion of closure, the operator shall prepare and submit to the Agency an affidavit, on a form provided by the Agency, stating that the facility has been closed in accordance with the closure plan.

2) Upon finding that the facility has been closed in accordance with the closure plan, the Agency shall issue a certificate of completion of closure and shall terminate the facility permit.

h) The operator of a permitted facility shall maintain financial assurance as provided in Subpart F.

SUBPART E: QUALITY OF END-PRODUCT COMPOST

Section 830.501 Scope and Applicability

a) *End-product compost used as daily cover or vegetative amendment in the final layer* of a landfill is exempt from the requirements set forth in this Subpart. (Section 22.33(c) of the Act.)

b) The provisions set forth in Sections 830.502, 830.503, and 830.507 of this Subpart apply to all end-product compost subject to this Part.

c) In addition, the provisions set forth in Sections 830.504 and 830.508 apply to all end-product compost derived from landscape waste and subject to this Part.

Section 830.502 Compost Classes

For the purpose of this Part, end-product compost must be classified in the following manner:

a) General Use Compost: End-product compost which meets the standards set forth in Section 830.503.

b) Designated Use Compost: End-product compost which does not qualify as general use end-product compost. Designated use compost must be used only *as daily cover or vegetative amendment in the final layer* at a landfill. (Section 22.33(c) of the Act.)

Section 830.503 Performance Standards for General Use Compost

General-use compost:

a) Must be free of any materials which pose a definite hazard to human health due to physical characteristics, such as glass or metal shards;

b) Must not contain man-made materials larger than four millimeters in size exceeding 1% of the end-product compost, on a dry weight basis;

c) Must have a pH between 6.5 and 8.5;

d) Must have reached stability, as demonstrated by one of the methods prescribed in Section 830.Appendix B;

e) Must not exceed, on a dry weight basis, the inorganic concentrations set forth in Section 830.Table A; and

f) Must not contain fecal coliform populations that exceed 1000 MPN per gram of total solids (dry weight basis), or Salmonella species populations that exceed 3 MPN per 4 grams of total solids (dry weight basis).

Section 830.504 Testing Requirements for End-Product Compost Derived from Landscape Waste

a) Operators shall perform testing to demonstrate compliance with the standards set forth in subsections (b) - (e) of Section 830.503. Such testing must be done in accordance with the methods set forth in Section 830.Appendix B, except that an alternative method or methods may be used to demonstrate compliance with any of these standards, if approved in writing by the Agency.

b) Operators of facilities which are authorized to use an additive pursuant to Section 830.205(a)(1)(G) which may cause an exceedence of Section 830.503(f) shall test for pathogens using the method set forth in Section 830.Appendix B, except that an alternative method or methods may be

used to demonstrate compliance with any of these standards, if approved in writing by the Agency.

c) For any facility not required to have a permit, no testing need be done to demonstrate compliance with the inorganics standards set forth in Section 830.Table A for general use compost derived from landscape waste.

d) End-product compost derived from landscape waste must be tested for the parameters set forth in Section 830.503 at a frequency of:

1) Once every 5,000 cubic yards of end-product compost transported off-site; or

2) Once per year, if less than 5,000 cubic yards of end-product compost are transported off-site per year.

Section 830.507 Sampling Methods

Sample collection, preservation, and analysis must be done in a manner which assures valid and representative results. A composite sample must be prepared by one of the following methods:

a) Twelve grab samples, each 550 milliliters in size, must be taken from the end-product compost at the facility, in the following manner:

1) Four grab samples from points both equidistant throughout the length and at the center of the windrow or other pile, at a depth not less than one meter from the surface of the windrow or other pile;

2) Four grab samples from points both equidistant throughout the length and one quarter the width of the windrow or other pile, at a depth not less than half the distance between the surface and the bottom of the windrow or other pile; and

3) Four grab samples from points both equidistant throughout the length and one eighth the width of the windrow or other pile, at a depth not less than half the distance between the surface and the bottom of the windrow or other pile.

4) The twelve grab samples must be thoroughly mixed to form a homogenous composite sample. Analyses must be of a representative subsample. The sample holding times, sample container types and minimum collection volumes listed in Section 830.Table B shall apply; or

b) Sampling methods set forth in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), incorporated by reference at 35 Ill. Adm. Code 830.103.

Section 830.508 Off-Specification Compost

End-product compost derived from landscape waste which does not meet the standards for general use compost set forth in this Subpart must be further managed as landscape waste or as designated use compost.

SUBPART F: FINANCIAL ASSURANCE

Section 830.601 Scope and Applicability

a) This Subpart provides procedures by which the operator of any composting facility required, pursuant to 35 Ill. Adm. Code 831, to have a permit shall demonstrate compliance with the financial assurance plan requirement set forth in Sections 22.33 of the Act.

b) The operator is not required to comply with the provisions of this Subpart if the operator demonstrates that:

1) Closure and post-closure care plans filed pursuant to 35 Ill. Adm. Code 724, 725, 807 or 811 will result in closure of the facility in accordance with the requirements of this Part; and

2) The operator has provided financial assurance adequate to provide for such closure and post-closure care pursuant to 35 Ill. Adm. Code 724, 725, 807 or 811.

Section 830.602 Financial Assurance Plan

The operator shall develop and have at the facility, and submit to the Agency in accordance with 35 Ill. Adm. Code 831.112, a financial assurance plan containing, at a minimum, the following information:

a) A written cost estimate, determined pursuant to Section 830.603, covering the maximum cost of premature final closure; and

b) The financial mechanism chosen by the operator to comply with the requirement set forth in Section 830.604(a).

Section 830.603 Written Cost Estimate

a) The written cost estimate required pursuant to Section 830.602(a) must be based on the steps necessary to complete closure in accordance with Section 830.213, and must include an itemization of the cost to complete each step.

b) The operator shall revise the current cost estimate whenever a change in the closure plan increases the cost estimate.

Section 830.604 Financial Assurance Fund

a) The operator must maintain financial assurance equal to or greater than the amount provided as a written cost estimate in the financial assurance plan.

b) The funds comprising financial assurance must be used to cover the cost of closure.

c) Upon certification of completion of closure, any financial assurance funds remaining will be made available for unrestricted use.

Section 830.605 Financial Assurance Mechanism

a) The operator may utilize either of the following mechanisms to comply with Section 830.604:
   1) A cash reserve fund; or
   2) Self-insurance.

b) An operator choosing to use a cash reserve account as the mechanism by which to comply with Section 830.604 shall:
   1) Fully fund the account within one year after the initial receipt of waste, except that facilities in operation on the November 10, 1994 shall fully fund the account by November 10, 1995; and
   2) Thereafter maintain full funding pending the expenditure of such funds to cover the costs of closure.

c) An operator choosing to use self-insurance as the mechanism by which to comply with subsection (a) of this Section shall have:
   1) Net working capital and tangible net worth each at least six times the current cost estimate;
   2) Tangible net worth of at least $10 million;
   3) Assets in the United States amounting to at least 90 percent of the operator's total assets and at least six times the current cost estimate; and
   4) Either:
      A) Two of the following three ratios: a ratio of total liabilities to net worth of less than 2.0; a ratio of the sum of net income plus depreciation, depletion and amortization to total liabilities of greater than 0.1; or a ratio of current assets to current liabilities of greater than 1.5; or
      B) A current rating of AAA, AA, A or BBB for its most recent bond issuance, as issued by Standard and Poor, or a rating of Aaa, Aa, A or Bbb, as issued by Moody.

Section 830.606 Financial Assurance Certification

The operator shall submit to the Agency, by November 10, 1995 and thereafter as part of the annual report, a Composting Facility Financial Assurance Plan Compliance Certification, so titled, which contains the following information:

a) Operator name;
b) Illinois Inventory Identification Number and Permit Number assigned by the Agency;
c) Facility name;
d) Address and county in which the facility is located; and
e) A statement certifying compliance with the provisions of this Subpart.

Section 830.APPENDIX A: Early Detection and Groundwater Monitoring Program

The operator of a compost facility subject to the monitoring requirements of 35 Ill. Adm. Code 830.205(b)(1)(A) or 35 Ill. Adm. Code 830.205(b)(2)(A) shall implement an Agency-approved monitoring program using, at a minimum, the procedures and standards set forth in this Appendix.

a) Program.
   1) The operator shall perform a hydrogeologic site investigation pursuant to subsection (b) of this Appendix to characterize the subsurface and determine the location and quality of groundwater beneath the facility.
   2) An appropriate monitoring system must be designed, capable of determining the compost facility's impact or potential impact on the quality of groundwater beneath the facility.
   3) If the water table is located greater than ten (10) feet below ground surface and the soil has been classified as a soil exhibiting moderate or poor drainage by the U.S. Department of Agriculture's Soil Conservation Service on a published county soil survey map, the owner of operator shall install either an early detection system, pursuant to subsection (d)(1) of this Section, or a groundwater monitoring system, pursuant to subsection (d)(2) of this Section. Otherwise, a groundwater monitoring system must be installed, pursuant to subsection (d)(2) of this Section.
   4) If either early detection monitoring or groundwater monitoring indicates an impact on underground water beneath the facility, a site evaluation must be performed, using the procedures set forth in subsection (e) of this Section, and remedial action implemented, if appropriate.
   5) The results of the hydrogeologic site investigation and the proposed monitoring system design must be submitted to the Agency as part of an application for a facility permit.

b) Hydrogeologic Site Investigation. The operator shall conduct a hydrogeologic site investigation to obtain the following information:
   1) The regional hydrogeologic setting of the facility, using material available from Illinois scientific surveys, state and federal organizations, water well drilling logs and previous investigations. A complete list of references and any well logs utilized must be submitted to the Agency with the results of the hydrogeologic site investigation;
   2) The site-specific hydrogeologic setting of the facility, using continuously sampled borings of the site and information collected from on-site piezometers or monitoring wells. At a minimum, borings must be to a depth of ten (10) feet;
   3) Soil characteristics, including soil types and physical properties of the underlying strata, including the potential pathways for contaminant migration. Any confining unit relative to waste constituents expected to be present must be identified;

4) Water-bearing sediments or geologic units beneath the facility, their classification pursuant to 35 Ill. Adm. Code 620 and the direction and rate of groundwater flow. Also, regional and local areas of groundwater discharge and recharge affecting groundwater at the facility must be identified; and

5) Water quality beneath the facility, including any potential impact on groundwater. The groundwater quality analysis must take into account the type of compost facility and its expected leachate constituents.

c) All drill holes, including exploration borings that are not converted into monitoring wells, monitoring wells that are no longer necessary to the operation of the facility, and other holes that may cause or facilitate contamination of groundwater, must be sealed in accordance with the standards of 35 Ill. Adm. Code 811.316.

d) Monitoring System

1) Early Detection System

A) Monitoring device(s) must be installed:

i) Hydraulically upgradient from the facility or at sufficient distance from the composting area so as not to be affected by it, to establish representative background water quality in the waters beneath (or near) the facility; and

ii) Beneath and around the composting area, sufficient to enable early detection of the downward migration of constituents related to the composting activities at the facility.

B) The parameters monitored must be those expected to be in the leachate, taking into consideration the type of compost facility.

C) If lysimeters are utilized, the following requirements must be used in designing an adequate monitoring system;

i) Lysimeters must be located, when possible, in a depression in the path of site runoff in each direction of flow and topographically low areas associated with the unit(s).

ii) At a minimum, each lysimeter must be sampled within 48 hours after each rain event exceeding 0.5 inches, provided that the rain event is not within two weeks after the date previous samples were successfully collected.

iii) Any lysimeter placed around the perimeter must be installed at an angle so that the cup of the lysimeter is beneath the unit(s).

2) Groundwater Monitoring System

A) Monitoring well(s) must be installed:

i) Hydraulically upgradient from the facility, to establish representative background water quality in the groundwater beneath (or near) the facility; and

ii) Hydraulically downgradient (i.e., in the direction of decreasing static head) from the compost facility. Locations and depths of monitoring wells must ensure detection of waste constituents that migrate from the waste management unit to the groundwater.

B) The parameters monitored must be those expected to be in the leachate, taking into consideration the type of compost facility.

C) The groundwater monitoring system must be installed at the closest practicable distance from the composting area boundary, or at an alternative distance specified by permit.

3) Approval of any early detection monitoring system or groundwater monitoring system must be obtained from the Agency prior to operation.

e) Evaluation

1) Further evaluation of an impact to underground water shall be required if:

A) An exceedence of the appropriate standard as stated in 35 Ill. Adm. Code 620 is confirmed;

B) A progressive increase in measured parameters other than pH is observed over two consecutive sampling events; or

C) Where groundwater monitoring wells are used, a statistical increase over background or upgradient concentrations, calculated in accordance with 35 Ill. Adm. Code 811.320(e), is observed.

2) An impact as described in subsection (e)(1)(A) or (e)(1)(C) of this Section must be confirmed by resampling the underground water within 30 days after the date on which the first sample analyses are received. The operator shall provide notification to the Agency of the results of the resampling analysis within 30 days after the date on which the sample analyses are received, but no later than 90 days after the first samples were taken.

3) Within 60 days after the confirmation of impact but no later than 120 days after the date on which the first sample was taken, the operator shall propose as a permit modification a plan to address the impact, which may include further evaluation of data, including the use of appropriate statistical methods, groundwater monitoring or remedial action.

Section 830.APPENDIX B: Performance Test Methods

a) Man-made materials

1) Take four 250 gram samples.
2) Dry samples at 70°C for 24 hours. Let sample cool to room temperature (20 to 25°C).
3) Weigh each sample and pass through a four millimeter screen. Inspect material remaining on the screen, and separate and weigh man-made materials. Calculate percent man-made materials relative to the total dry weight of the sample prior to screening.

b) Pathogens

The end product compost must be tested to demonstrate compliance with one of the pathogen reduction standards set forth in Section 830.503(f). Such testing must be done in accordance with Standard Methods for the Examination of Water and Wastewater Part 9221 E or Part 9222 D, incorporated by reference at 35 Ill. Adm. Code 830.103, for fecal coliform, and Standard Methods for the Examination of Water and Wastewaters Part 9260 D incorporated by reference at 35 Ill. Adm. Code 830.103, for Salmonella sp. bacteria.

c) pH

The following protocol must be used to determine the pH of the compost: North Central Regional Publication 221, Method 14; or EPA Method 9045 in Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (SW-846), both incorporated by reference at 35 Ill. Adm. Code 830.103.

d) Stability

The operator shall demonstrate that the composite sample has reached stability by showing either:

1) That the compost does not reheat, upon standing, to greater than 20^{o} C above room temperature (20 to 25^{o} C). The degree of reheating must be measured using the following method:
   A) Take 4 liters of composite sample and adjust the moisture of the end-product compost so it falls within the range of 45 to 55% water on a dry weight basis;
   B) Fill a 2 liter Dewar flask (100 millimeters, inside diameter) loosely with sample within the acceptable moisture range and gently tap to simulate natural settling. Keep at room temperature (20 to 25^{o} C).
   C) Insert thermometer into Dewar flask to a point 5 centimeters from bottom of flask. Do not push thermometer against bottom of flask.
   D) Record time and temperature each day for 15 days to determine when the highest point is reached. After each reading, shake down the thermometer; or
2) That the end-product compost supports a germination rate of 70% for annual ryegrass and radish using the following protocol:
   A) Mix 4 liters vermiculite with 4 grams of air-dried soil.
   B) Take 1 liter of the composite sample with a moisture level within the range of 45 to 55 percent, on a dry weight basis;

if necessary, adjust the moisture level until within such range.

C) In three 2-liter containers, combine the vermiculite-soil mix with the compost sample at the following ratios:

Blend	Vermiculite-Soil Mix (45 to 55% moisture) (dry weight basis) (grams)	Compost (grams)
A (75% compost, w/w)	320	960
B (50% compost, w/w)	640	640
C (Control)	1,280	0

D) Break up lumps of compost with a spatula or trowel. Moisten the blend with water.

E) Cover each container with plastic wrap and mix well by inverting each container 20 times.

F) Transfer each blend into four 4-inch pots. Fill the pots to the brim and firm the surface by pressing down with the bottom of another 4-inch pot. Leave about 2 to 5 centimeters of space between surface of the blend and the top of the pot.

G) Add approximately 50 milliliters of water soluble fertilizer (e.g., 20-20-20 NPK, fish emulsion) diluted to half-strength to each pot.

H) Place 10 seeds of annual ryegrass and 10 radish seeds onto the surface of the moistened blend. Cover the seeds with about 1 centimeter dry vermiculite.

I) Set the pots in a tray of warm water and let them remain there until capillary action has drawn water up and moistened the surface of the blend. Remove the pots from the tray when moisture from the bottom-watering is observed.

J) Put pots in an environment suitable for plant growth (e.g., 8 to 12 hours of light daily, 30 to 60% humidity, 20 to 25°C). Check pots daily to determine if watering is needed. Blends should be kept evenly moist. If necessary, cover each pot with plastic wrap until the seedlings emerge. Remove plastic wrap at the first sign of emergence.

K) Seven days after planting the seeds, count emergent seedlings in each pot and record visual observations of relative plant conditions identified in Section 830.Table C.

L) Calculate the percent germination of plants in each blend relative to the control pot, using the formula set forth in Section 830.Table C.

Section 830.TABLE A: Inorganic Concentration Limits for General Use Compost

	Maximum Concentration Limit (mg/kg dry weight basis)	Test Method (SW-846)
Arsenic	41	7060 or 7061
Cadmium	21	7130 or 7131 or 6010
Chromium	1,200	7190 or 7191 or 6010
Copper	1,500	7210 or 7211 or 6010
Lead	300	7420 or 7421 or 6010
Mercury	17	7471
Nickel	420	7520 or 6010
Selenium	36	7740 or 7741
Zinc	2,800	7950 or 7951 or 6010

Section 830.TABLE B: Sampling and Handling Requirements

Parameter	Container Type	Minimum Sample Size (ml)	Preservation	Maximum Storage Time
Man-made materials	P, G	1,000	Do not freeze	28 days
pH	P, G	50	Analyze immediately	
Seed Germination	P, G	1,000	Analyze immediately	
Self-heating	P, G	4,000	Analyze immediately	
Pathogens	P, G	500	Cool to 4°C	2 weeks
Inorganic	P(A), G(A)	500	Cool to 4°C	6 months

P = plastic; G = glass; G(A), P(A) = rinsed with acid cleaning solution (1 part water to 1 part concentrated HNO_3)

Section 830.TABLE C: Seed Germination Record Sheet

Date Test Initiated:
Date Test Read:

Person responsible for test:

% Germination

Blend	Pot ID	Number of Annual Ryegrass Seedlings	Number of Radish Seedlings
A	A_1		
A	A_2		
A	A_3		
A	A_4		
B	B_1		
B	B_2		
B	B_3		
B	B_4		
C	C_1		
C	C_2		
C	C_3		
C	C_4		

Annual Ryegrass

Blend A = $\frac{(A_1 + A_2 + A_3 + A_4)/4}{(C_1 + C_2 + C_3 + C_4)/4}$ X 100% = _____ % Germination

Blend B = $\frac{(B_1 + B_2 + B_3 + B_4)/4}{(C_1 + C_2 + C_3 + C_4)/4}$ X 100% = _____ % Germination

Radish

Blend A = $\frac{(A_1 + A_2 + A_3 + A_4)/4}{(C_1 + C_2 + C_3 + C_4)/4}$ X 100% = _____ % Germination

Blend B = $\frac{(B_1 + B_2 + B_3 + B_4)/4}{(C_1 + C_2 + C_3 + C_4)/4}$ X 100% = _____ % Germination

General Plant Conditions

BLEND A
Condition

Pots	Seedling	Parameter	None	Slight	Moderate	High
A_1 - A_4	Ryegrass	Wilting				
A_1 - A_4	Ryegrass	Chlorosis				
A_1 - A_4	Ryegrass	Discoloration				
A_1 - A_4	Ryegrass	Malodorous				
A_1 - A_4	Ryegrass	Fungal Growth				

Other Comments:

BLEND B
Condition

Pots	Seedling	Parameter	None	Slight	Moderate	High
B_1 - B_4	Ryegrass	Wilting				
B_1 - B_4	Ryegrass	Chlorosis				
B_1 - B_4	Ryegrass	Discoloration				
B_1 - B_4	Ryegrass	Malodorous				
B_1 - B_4	Ryegrass	Fungal Growth				

Other Comments:

BLEND C
Condition

Pots	Seedling	Parameter	None	Slight	Moderate	High
C_1 - C_4	Ryegrass	Wilting				
C_1 - C_4	Ryegrass	Chlorosis				
C_1 - C_4	Ryegrass	Discoloration				
C_1 - C_4	Ryegrass	Malodorous				
C_1 - C_4	Ryegrass	Fungal Growth				

Other Comments:

General Conclusion on the Stability of the Compost tested:

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 832
PROCEDURAL REQUIREMENTS FOR PERMITTING COMPOST FACILITIES

SUBPART A: GENERAL PROVISIONS

Section

SUBPART B: ADDITIONAL PROCEDURES FOR MODIFICATION OF PERMITS

Section

SUBPART C: ADDITIONAL PROCEDURES FOR THE RENEWAL OF PERMITS

Section

AUTHORITY: Implementing Sections 5, 21, 22.26, 22.33, 22.34, 22.35, 39 and 40 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/5, 21, 22.26, 22.33, 22.34, 22.35, 39, 40 and 27].

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

SOURCE: Adopted at 18 Ill. Reg. 17009, effective November 15, 1994.

Section 832.101 Scope and Applicability

This Part contains the procedures to be followed by the Agency in processing permits required pursuant to Section 21(d) of the Act and 35 Ill. Adm. Code 831. The definitions set forth in 35 Ill. Adm. Code 830.102 apply to this Part.

Section 832.102 Severability

If any provision of this Rule is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of either this Part as a whole or any Subpart, Section, subsection, sentence or clause thereof not adjudged invalid.

Section 832.103 Form and Delivery of Permit Application

All permit applications must be made on forms prescribed by the Agency, and must be mailed or delivered to the address designated by the Agency on the forms. The Agency shall provide a dated, signed receipt upon request. The Agency's record of the date of filing shall be deemed conclusive unless a contrary date is proved by a dated, signed receipt. Permit applications which are hand-delivered must be delivered during the Agency's normal business hours.

Section 832.104 Required Notifications

The Agency shall not issue a development or construction permit after December 31, 1990 for any composting facility, unless the applicant has given notice thereof:

a) *In person or by mail to the members of the General Assembly from the legislative district in which the proposed facility is to be located*;

b) *By registered or certified mail to the owners of all real property located within 250 feet of the site of the proposed facility (determined as provided in subsection (b) of Section 39.2* of the Act); and

c) *To the general public by publication in a newspaper of general circulation in the county in which the proposed facility is to be located*. (Section 22.26 of the Act.)

1) At a minimum, the newspaper notification must meet the following requirements:

A) Publication in the legal notice section of a daily newspaper in circulation within the city or area in which the facility is proposed to be located;

B) Published once a week for three successive weeks, pursuant to Section 3 of the Illinois Notice by Publication Act [715 ILCS 5/3].

2) The newspaper notification should contain:
   A) A description of the type of facility being proposed;
   B) The location of the proposed facility;
   C) The name of the person or corporation proposing the facility with a contact person and phone number; and
   D) Instructions to direct comments to the Agency in writing within twenty-one (21) days after the date of last publication. The Agency address and the phone number(s) of the bureau(s) and section(s) reviewing the permit must be provided.
3) The notification must not be published more than 3 months before filing the application and must commence no later than the filing date. Copies of the newspaper notification must either accompany the application or be sent to the Agency within 30 days after filing the application.

Section 832.105 Agency Decision Deadlines

a) *If there is no final action by the Agency within 90 days after the filing of the application for permit, the applicant may deem the permit issued; except that this time period shall be extended to 180 days when notice and opportunity for public hearing are required by State or Federal law or regulation.* (Section 39(a) of the Act.)

b) An application for permit pursuant to this Part shall not be deemed filed until the Agency has received all information and documentation in the form and with the content required pursuant to this Part, 35 Ill. Adm. Code 830 and 35 Ill. Adm. Code 831. However, if, pursuant to the standards for the denial of a permit, the Agency fails to notify the applicant within 30 days following the filing of a purported application that the application is incomplete and the reason the Agency deems it incomplete, the application shall be deemed to have been filed as of the date of such purported filing as calculated pursuant to Section 832.103. The applicant may treat the Agency's notification that an application is incomplete as a denial of the application for the purpose of permit appeal.

c) The applicant may waive the right to a final decision within the decision deadline. Such waiver shall be submitted in writing to the Agency prior to the applicable deadline in subsection (a) of this Section.

d) The applicant may modify a permit application at any time prior to the Agency decision deadline date. Any modification of a permit application must constitute a new application for the purposes of calculating the Agency decision deadline date.

e) Final action must be deemed to have taken place on the date that such final action is signed.

f) The Agency shall mail all notices of final action by registered or certified mail, postmarked with a date stamp and accompanied by a return receipt request.

Section 832.106 Standards for Issuance of a Permit

a) *When the Board has by regulation required a permit for the construction, installation, or operation of any type of facility, equipment, vehicle, vessel, or aircraft, the applicant shall apply to the Agency for such permit and it shall be the duty of the Agency to issue such permit upon proof by the applicant that the facility, equipment, vehicle, vessel, or aircraft will not cause a violation of* the *Act or of regulations* set forth in 35 Ill. Adm. Code: Chapter I.

b) *In granting permits, the Agency may impose such conditions as may be necessary to accomplish the purposes of* the *Act, and as are not inconsistent with the regulations promulgated by the Board*.

c) *No permit shall be issued by the Agency under* the *act for construction or operation of any facility or site located within the boundaries of any setback zone established pursuant to* the *Act, where such construction or operation is prohibited*. (Section 39 of the Act.)

Section 832.107 Standards for Denial of a Permit

If the Agency denies any permit pursuant to this Section, *the Agency shall transmit to the applicant, within the time limitations* for Agency decision deadlines, *specific, detailed statements as to the reasons the permit application was denied. Such statements shall include but not be limited to the following*:

a) *The Sections of* the *Act that may be violated if the permit were granted*;

b) *The provision of the regulations* set forth in 35 Ill. Adm. Code: Chapter I, *promulgated pursuant to* the *Act, that may be violated if the permit were granted*;

c) *The specific information, if any, the Agency deems the applicant did not provide in its application to the Agency; and*

d) *A statement of specific reasons why the Act and the regulations* set forth in 35 Ill. Adm. Code: Chapter I *might be violated if the permit were granted*. (Section 39(m) of the Act.)

Section 832.108 Permit Appeals

If the Agency refuses to grant or grants with conditions a permit under Section 39 of the *Act, the applicant may, within 35 days, petition for a hearing before the Board to contest the decision of the Agency*. (Section 40(a)(1) of the Act.) The petition shall be filed, and the proceeding conducted, pursuant to the procedures of Section 40 of the Act and 35 Ill. Adm. Code 101 and 105.

Section 832.109 Permit No Defense

The issuance and possession of a permit shall not constitute a defense to a violation of the Act or any Board regulations, except for the development and operation of a facility without a permit.

Section 832.110 Term of Permit

No permit issued pursuant to this part shall have a term of more than 5 years.

Section 832.111 Transfer of Permit

A permit may be transferred to a new operator only upon permit modification, pursuant to this Part, to identify the new permittee and incorporate other requirements necessary under the Act. The application must be signed by the existing owner or duly authorized agent of the owner and the new owner and operator or duly authorized agents. The new operator to whom the permit is transferred shall comply with all terms and conditions specified in such permit.

SUBPART B: ADDITIONAL PROCEDURES FOR MODIFICATION OF PERMITS

Section 832.201 Agency-Initiated Modification of an Approved Permit

a) The Agency may modify a permit under the following circumstances:
   1) Discovery of a typographical, administrative, or calculation error;
   2) Discovery that a determination or condition was based upon false or misleading information;
   3) An order of the Board issued in an action brought pursuant to Title VII, IX or X of the Act; or
   4) Promulgation of new statutes or regulations affecting the permit.

b) Modifications initiated by the Agency shall not become effective until 45 days after receipt by the operator, unless stayed during the pendency of an appeal to the Board. The operator may request that the Agency reconsider the modification, or may file a petition for hearing with the Board pursuant to Section 832.108. All other time periods and procedures in 832.202 shall apply.

Section 832.202 Procedures for a Modification of an Approved Permit

Application for modification of an approved permit shall be subject to all requirements and time schedules set forth in this Part.

SUBPART C: ADDITIONAL PROCEDURES FOR THE RENEWAL OF PERMITS

Section 832.301 Time of Filing

An application for renewal of a permit must be filed with the Agency at least 90 days prior to the expiration date of the existing permit.

Section 832.302 Effect of Timely Filing

When a permittee has made timely and sufficient application for the renewal of a permit, the existing permit shall continue in full force and effect until the final Agency decision on the application and any final Board decision on any appeal pursuant to Section 40 have been made, unless a later date is fixed by order of a reviewing court.

Section 832.303 Procedures for Permit Renewal

Applications for permit renewal are to be subject to the requirements and time schedules set forth in Subpart A of this Part.

TITLE 35: ENVIRONMENTAL PROTECTION
SUBTITLE G: WASTE DISPOSAL
CHAPTER I: POLLUTION CONTROL BOARD
SUBCHAPTER i: SOLID WASTE AND SPECIAL WASTE HAULING

PART 831
INFORMATION TO BE SUBMITTED IN A COMPOST FACILITY PERMIT APPLICATION

SUBPART A: GENERAL INFORMATION REQUIRED FOR ALL COMPOST FACILITIES

Section

AUTHORITY: Implementing Sections 5, 21, 22.33, 22.34, 22.35 and 39 and authorized by Section 27 of the Environmental Protection Act [415 ILCS 5/5, 21, 22.33, 22.34, 22.35, 27 and 39].

BOARD NOTE: This Part implements the Illinois Environmental Protection Act as of July 1, 1994.

SOURCE: Adopted at 18 Ill. Reg. 16942, effective November 30, 1994; amended in R97-29 at 22 Ill. Reg. 21044, effective November 23, 1998.

SUBPART A: GENERAL INFORMATION REQUIRED FOR ALL COMPOST FACILITIES

Section 831.101 Scope and Applicability

This Part contains the procedures to be followed by all applicants in applying for permits required pursuant to Section 21(d) of the Act. The definitions set forth in 35 Ill. Adm. Code 830.102 apply to this Part.

Section 831.102 Severability

If any provision of this Part is adjudged invalid, or if the application thereof to any person or in any circumstance is adjudged invalid, such invalidity shall not affect the validity of either this Part as a whole or any Subpart, Section, subsection, sentence or clause thereof not adjudged invalid.

Section 831.103 Certification by Professional Engineer

All designs presented in the application must be prepared by, or under the supervision of, a professional engineer if required by the Illinois Professional Engineering Practice Act [225 ILCS 325]. The professional engineer shall affix the name of the engineer, date of preparation, registration number, a statement attesting to the accuracy of the information and design and a professional seal to all designs.

Section 831.104 Application Fees

The permit application must be accompanied by all filing fees required pursuant to Section 5(f) of the Act.

Section 831.105 Required Signatures

a) All permit applications must contain the full legal name, address and telephone number of the operator, the property owner, if different from the operator, and any duly authorized agent(s) of the operator or property owner to whom all inquiries and correspondence shall be addressed.

b) All permit applications must be signed by the operator and the property owner, if different from the operator, or the duly authorized agent(s) of the operator or property owner, accompanied by an oath or affidavit attesting to the agent's authority to sign the application, if applicable, and notarized. The following persons are considered duly authorized agents of the operator and the property owner:
   1) For corporations, a principal executive officer of at least the level of vice president;
   2) For a sole proprietorship or partnership, the proprietor or a general partner, respectively; and
   3) For a municipality, state, federal or other public agency, the head of the agency or ranking elected official.

Section 831.106 Site Identification

For existing permitted sites, the site name and the Illinois Inventory Identification Number previously assigned by the Agency shall be used in correspondence with the Agency regarding the facility. Permit applications for new facilities must include the proposed facility name, the latitude and longitude of the site, if available, the legal description of the site, if available, and the physical location, including at a minimum the city or township, county, state and zip code. An Illinois Inventory Identification Number will be assigned by the Agency.

Section 831.107 Site Location Map

All permit applications shall contain a site location map on the most recent United States Geological Survey (USGS) quadrangle of the area from the 7 1/2 minute series (topographic), or on such other map whose scale clearly shows the following information:

a) The permit area and all adjacent property, extending at least 1/2 mile beyond the boundary of the facility;

b) The prevailing wind direction;

c) All rivers designated for protection under the Wild and Scenic Rivers Act (16 USC 127 et seq.);

d) The limits of all 10-year floodplains;

e) All natural areas designated as a Dedicated Illinois Nature Preserve pursuant to the Illinois Natural Areas Preservation Act [525 ILCS 30];

f) All historic and archaeological sites designated by the National Historic Preservation Act (16 USC 470 et seq.) and the Illinois Historic Preservation Act [20 ILCS 3410];

g) All areas identified as a critical habitat pursuant to the Endangered Species Act (16 USC 1531 et seq.) and the Illinois Endangered Species Protection Act [520 ILCS 10];

h) All main service corridors, transportation routes, and access roads to the facility;

i) All residences and areas in which people congregate within 1/2 mile of the facility boundaries;

j) The locations of all on-site potable water supply wells and all potable water supply wells within 1/8 mile of the boundaries of the facility;

k) The types of land use for the properties immediately adjacent to the facility (i.e., residential, commercial, industrial, agricultural, etc.). This must include any zoning classifications of these properties and the location (and function) of all buildings within 1/2 mile of the facility; and

l) In the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, all of the following, the property line of which is within 1/8 mile of the nearest edge of the composting area:

1) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year;

2) Primary and secondary schools and adjacent areas that the school uses for recreation; and

3) Any facility for child care licensed under Section 3 of the Child Care Act of 1969 [225 ILCS 10/3]; preschools; and adjacent areas that the facility or preschool uses for recreation.

(Source: Amended at 22 Ill. Reg. 21044, effective November 23, 1998)

Section 831.108 Site Plan Map

The application must contain maps or plan sheets showing the location of the facility, on a scale no smaller than one inch equals 200 feet, containing five-feet contour intervals where the relief exceeds 20 feet and a two-feet contour interval where the relief is 20 feet or less, and referenced to a USGS datum. The following information shall be provided:

a) The boundaries of the facility;
b) The boundaries of the composting area(s);
c) The property boundaries, if different;
d) The location of all buildings on the property and any other pertinent location data with respect to the operation of the proposed facility (i.e., utilities, water supply, fencing, access roads, paved areas, etc.);
e) The location of all staging and stockpiling areas for landscape waste, end-product compost, windrow bulking agents or additives;
f) The drainage patterns of the composting facility and surrounding areas. At a minimum, the direction of both on-site and off-site drainage, as well as the location of any ditches, swales, berms or other structures that exist or will be constructed to control runoff and leachate generated by the facility's operation must be identified; and
g) Proof that all authorizations, permits, and approvals required from each Bureau of the Agency have been applied for or obtained.

Section 831.109 Narrative Description of the Facility

The permit application must contain a written description of the facility with supporting documentation describing the procedures and plans that will be used at the facility to comply with the requirements of this Part and any other applicable Parts of 35 Ill. Adm. Code: Chapter I. Such description must include, but not be limited to, the following information:

a) An estimate of the maximum annual volume and peak daily volume of landscape waste the facility will be able to process;

b) Proof of the following:

1) *The facility includes a setback of at least 200 feet from the nearest potable water supply well*;

2) *The facility is located outside the boundary of the 10-year floodplain or the site will be floodproofed*;

3) *The facility is located so as to minimize incompatibility with the character of the surrounding area, including at least a 200 foot setback from any residence and in the case of a facility that is developed or the permitted composting area of which is expanded after November 17, 1991 the composting area is located at least 1/8 mile from the nearest residence (other than a residence located on the same property as the facility).* In addition, in the case of a facility that is developed or the permitted composting area of which is expanded after January 1, 1999, the composting area is located at least 1/8 mile from the property line of each of the following:

A) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year;

B) Primary and secondary schools and adjacent areas that the school uses for recreation; and

C) Any facility for child care licensed under Section 3 of the Child Care Act of 1969 [225 ILCS 10/3]; preschools; and adjacent areas that the facility or preschool uses for recreation; and

4) *The design of the facility will prevent any compost material from being placed within 5 feet of the water table, will adequately control runoff from the site, and will collect and manage any leachate that is generated on the site* (Section 39(m) of the Act);

c) An operating plan, satisfying the requirements set forth in 35 Ill. Adm. Code 830.206;

d) An early detection or groundwater monitoring system design, in accordance with 35 Ill. Adm. Code 830.Appendix A, if required pursuant to 35 Ill. Adm. Code 830.205(b)(1)(A)(iii) or 830.205(b)(2)(A)(iii);

e) A contingency plan, satisfying the requirements set forth in 35 Ill. Adm. Code 830.212;

f) Specification of the operating hours of the facility;

g) The types of landscape waste that are proposed to be received by the facility;

h) Descriptions of the storage areas (including their capacities) that will be used to stage the waste before windrowing, to store bulking agent(s) or additives and to store the end-product compost; and

i) Description of personnel training procedures, satisfying the requirements of 35 Ill. Adm. Code 830.210.

(Source: Amended at 22 Ill. Reg. 21044, effective November 23, 1998)

Section 831.110 Legal Description

The permit application must contain a legal description of the facility boundary. Data supplied by any registered land surveyor contained in the permit application must bear the signature or seal of that registered land surveyor. References are to be included when such data are obtained from published sources.

Section 831.111 Proof of Land Ownership and Certification

The permit application must contain a certificate of ownership of the land on which the facility is located or a copy of the lease and its duration. The lease must clearly specify that the property owner authorizes the construction of a composting facility on the leased premises. The operator or property owner shall certify that the Agency will be notified 30 days prior to any changes in property ownership or conditions in the lease affecting the permit area.

Section 831.112 Closure Plan

The permit application must contain a written closure plan which contains a description of methods for compliance with all closure requirements in 35 Ill. Adm. Code 830.

Section 831.113 Financial Assurance

The permit application must contain methods to ensure financial assurance satisfying the requirements in 35 Ill. Adm. Code 830.Subpart F.

Section 831.114 Operator-Initiated Modification of an Approved Permit

a) To initiate a permit modification authorizing construction, resulting in an increase in capacity or extending the term of the existing permit, the operator shall file a complete permit application, on a form provided by the Agency, demonstrating compliance with all applicable requirements set forth in 35 Ill. Adm. Code 830.

b) To initiate any other permit modification, the operator shall submit, on a form provided by the Agency, a request for the desired modification. The applicant shall submit all information required pursuant to this Part which pertains to the desired modification.

Section 831.115 Modification to Obtain Operating Authorization

Unless otherwise authorized in the facility permit, prior to placing into service any structure constructed at a facility, the applicant shall obtain an operating authorization as a permit condition. In order to obtain such an operating authorization, the operator shall submit a report documenting that construction has been completed in accordance with the engineering design.

Section 831.116 Permit Renewal

a) The operator shall submit only that information required pursuant to this Part that has changed since the last permit review by the Agency.

b) The operator shall update any groundwater impact assessment, in accordance with 35 Ill. Adm. Code 830.Appendix A.

c) The operator shall provide a new cost estimate for closure pursuant to 35 Ill. Adm. Code 830.213 and 35 Ill. Adm. Code 830.Subpart F, based upon the maximum cost of premature final closure in the next permit term.

AN ACT concerning safety.

Be it enacted by the People of the State of Illinois, represented in the General Assembly:

Section 5. The Environmental Protection Act is amended by changing Sections 3.330, 22.26, and 22.34 and by adding Sections 3.197 and 3.282 as follows:

(415 ILCS 5/3.197 new)

Sec. 3.197. Food scrap. "Food scrap" means garbage that is (i) capable of being decomposed into compost by composting, (ii) separated by the generator from other waste, including, but not limited to, garbage that is not capable of being decomposed into compost by composting, and (iii) managed separately from other waste, including, but not limited to, garbage that is not capable of being decomposed into compost by composting. "Food scrap" includes, but is not limited to, packaging, utensils, and food containers composed of readily biodegradable material. For the purposes of this Section, packaging, utensils, and food containers are readily biodegradable if they meet the ASTM D6400 standard.

(415 ILCS 5/3.282 new)

Sec. 3.282. Livestock waste. "Livestock waste" means "livestock waste" as defined in the Livestock Management

Facilities Act.

(415 ILCS 5/3.330) (was 415 ILCS 5/3.32)

Sec. 3.330. Pollution control facility.

(a) "Pollution control facility" is any waste storage site, sanitary landfill, waste disposal site, waste transfer station, waste treatment facility, or waste incinerator. This includes sewers, sewage treatment plants, and any other facilities owned or operated by sanitary districts organized under the Metropolitan Water Reclamation District Act.

The following are not pollution control facilities:

(1) (blank);

(2) waste storage sites regulated under 40 CFR, Part 761.42;

(3) sites or facilities used by any person conducting a waste storage, waste treatment, waste disposal, waste transfer or waste incineration operation, or a combination thereof, for wastes generated by such person's own activities, when such wastes are stored, treated, disposed of, transferred or incinerated within the site or facility owned, controlled or operated by such person, or when such wastes are transported within or between sites or facilities owned, controlled or operated by such person;

(4) sites or facilities at which the State is performing removal or remedial action pursuant to Section 22.2 or 55.3;

(5) abandoned quarries used solely for the disposal of concrete, earth materials, gravel, or aggregate debris resulting from road construction activities conducted by a unit of government or construction activities due to the construction and installation of underground pipes, lines, conduit or wires off of the premises of a public utility company which are conducted by a public utility;

(6) sites or facilities used by any person to specifically conduct a landscape composting operation;

(7) regional facilities as defined in the Central Midwest Interstate Low-Level Radioactive Waste Compact;

(8) the portion of a site or facility where coal combustion wastes are stored or disposed of in accordance with subdivision (r)(2) or (r)(3) of Section 21;

(9) the portion of a site or facility used for the collection, storage or processing of waste tires as defined in Title XIV;

(10) the portion of a site or facility used for treatment of petroleum contaminated materials by application onto or incorporation into the soil surface and any portion of that site or facility used for storage of petroleum contaminated materials before treatment. Only those categories of petroleum listed in Section 57.9(a)(3) are exempt under this subdivision (10);

(11) the portion of a site or facility where used oil is collected or stored prior to shipment to a recycling or

energy recovery facility, provided that the used oil is generated by households or commercial establishments, and the site or facility is a recycling center or a business where oil or gasoline is sold at retail;

(11.5) processing sites or facilities that receive only on-specification used oil, as defined in 35 Ill. Admin. Code 739, originating from used oil collectors for processing that is managed under 35 Ill. Admin. Code 739 to produce products for sale to off-site petroleum facilities, if these processing sites or facilities are: (i) located within a home rule unit of local government with a population of at least 30,000 according to the 2000 federal census, that home rule unit of local government has been designated as an Urban Round II Empowerment Zone by the United States Department of Housing and Urban Development, and that home rule unit of local government has enacted an ordinance approving the location of the site or facility and provided funding for the site or facility; and (ii) in compliance with all applicable zoning requirements;

(12) the portion of a site or facility utilizing coal combustion waste for stabilization and treatment of only waste generated on that site or facility when used in connection with response actions pursuant to the federal Comprehensive Environmental Response, Compensation, and Liability Act of 1980, the federal Resource Conservation

and Recovery Act of 1976, or the Illinois Environmental Protection Act or as authorized by the Agency;

(13) the portion of a site or facility accepting exclusively general construction or demolition debris, located in a county with a population over 700,000 as of January 1, 2000, and operated and located in accordance with Section 22.38 of this Act;

(14) the portion of a site or facility, located within a unit of local government that has enacted local zoning requirements, used to accept, separate, and process uncontaminated broken concrete, with or without protruding metal bars, provided that the uncontaminated broken concrete and metal bars are not speculatively accumulated, are at the site or facility no longer than one year after their acceptance, and are returned to the economic mainstream in the form of raw materials or products;

(15) the portion of a site or facility located in a county with a population over 3,000,000 that has obtained local siting approval under Section 39.2 of this Act for a municipal waste incinerator on or before July 1, 2005 and that is used for a non-hazardous waste transfer station;

(16) a site or facility that temporarily holds in transit for 10 days or less, non-petruscible solid waste in original containers, no larger in capacity than 500 gallons, provided that such waste is further transferred to a recycling, disposal, treatment, or storage facility on a

non-contiguous site and provided such site or facility complies with the applicable 10-day transfer requirements of the federal Resource Conservation and Recovery Act of 1976 and United States Department of Transportation hazardous material requirements. For purposes of this Section only, "non-petruscible solid waste" means waste other than municipal garbage that does not rot or become putrid, including, but not limited to, paints, solvent, filters, and absorbents;

(17) the portion of a site or facility located in a county with a population greater than 3,000,000 that has obtained local siting approval, under Section 39.2 of this Act, for a municipal waste incinerator on or before July 1, 2005 and that is used for wood combustion facilities for energy recovery that accept and burn only wood material, as included in a fuel specification approved by the Agency; ~~and~~

(18) a transfer station used exclusively for landscape waste, including a transfer station where landscape waste is ground to reduce its volume, where the landscape waste is held no longer than 24 hours from the time it was received; and~~.~~

(19) the portion of a site or facility that (i) is used for the composting of food scrap, livestock waste, crop residue, uncontaminated wood waste, or paper waste, including, but not limited to, corrugated paper or

cardboard, and (ii) meets all of the following requirements:

(A) There must not be more than a total of 30,000 cubic yards of livestock waste in raw form or in the process of being composted at the site or facility at any one time.

(B) All food scrap, livestock waste, crop residue, uncontaminated wood waste, and paper waste must, by the end of each operating day, be processed and placed into an enclosed vessel in which air flow and temperature are controlled, or all of the following additional requirements must be met:

(i) The portion of the site or facility used for the composting operation must include a setback of at least 200 feet from the nearest potable water supply well.

(ii) The portion of the site or facility used for the composting operation must be located outside the boundary of the 10-year floodplain or floodproofed.

(iii) The portion of the site or facility used for the composting operation must be located at least one-eighth of a mile from the nearest residence, other than a residence located on the same property as the site or facility.

(iv) The portion of the site or facility used

for the composting operation must be located at least one-eighth of a mile from the property line of all of the following areas:

(I) Facilities that primarily serve to house or treat people that are immunocompromised or immunosuppressed, such as cancer or AIDS patients; people with asthma, cystic fibrosis, or bioaerosol allergies; or children under the age of one year.

(II) Primary and secondary schools and adjacent areas that the schools use for recreation.

(III) Any facility for child care licensed under Section 3 of the Child Care Act of 1969; preschools; and adjacent areas that the facilities or preschools use for recreation.

(v) By the end of each operating day, all food scrap, livestock waste, crop residue, uncontaminated wood waste, and paper waste must be (i) processed into windrows or other piles and (ii) covered in a manner that prevents scavenging by birds and animals and that prevents other nuisances.

(C) Food scrap, livestock waste, crop residue, uncontaminated wood waste, paper waste, and compost must not be placed within 5 feet of the water table.

(D) The site or facility must meet all of the requirements of the Wild and Scenic Rivers Act (16 U.S.C. 1271 et seq.).

(E) The site or facility must not (i) restrict the flow of a 100-year flood, (ii) result in washout of food scrap, livestock waste, crop residue, uncontaminated wood waste, or paper waste from a 100-year flood, or (iii) reduce the temporary water storage capacity of the 100-year floodplain, unless measures are undertaken to provide alternative storage capacity, such as by providing lagoons, holding tanks, or drainage around structures at the facility.

(F) The site or facility must not be located in any area where it may pose a threat of harm or destruction to the features for which:

(i) an irreplaceable historic or archaeological site has been listed under the National Historic Preservation Act (16 U.S.C. 470 et seq.) or the Illinois Historic Preservation Act;

(ii) a natural landmark has been designated by the National Park Service or the Illinois State Historic Preservation Office; or

(iii) a natural area has been designated as a Dedicated Illinois Nature Preserve under the Illinois Natural Areas Preservation Act.

(G) The site or facility must not be located in an area where it may jeopardize the continued existence of any designated endangered species, result in the destruction or adverse modification of the critical habitat for such species, or cause or contribute to the taking of any endangered or threatened species of plant, fish, or wildlife listed under the Endangered Species Act (16 U.S.C. 1531 et seq.) or the Illinois Endangered Species Protection Act.

(b) A new pollution control facility is:

(1) a pollution control facility initially permitted for development or construction after July 1, 1981; or

(2) the area of expansion beyond the boundary of a currently permitted pollution control facility; or

(3) a permitted pollution control facility requesting approval to store, dispose of, transfer or incinerate, for the first time, any special or hazardous waste.

(Source: P.A. 94-94, eff. 7-1-05; 94-249, eff. 7-19-05; 94-824, eff. 6-2-06; 95-131, eff. 8-13-07; 95-177, eff. 1-1-08; 95-331, eff. 8-21-07; 95-408, eff. 8-24-07; 95-876, eff. 8-21-08.)

(415 ILCS 5/22.26) (from Ch. 111 1/2, par. 1022.26)

Sec. 22.26. The Agency shall not issue a development or construction permit after December 31, 1990 for any composting facility, unless the applicant has given notice thereof (1) in person or by mail to the members of the General Assembly from

the legislative district in which the proposed facility is to be located, (2) by registered or certified mail to the owners of all real property located within 250 feet of the site of the proposed facility (determined as provided in subsection (b) of Section 39.2), and (3) to the general public by publication in a newspaper of general circulation in the county in which the proposed facility is to be located. The notice required under this Section must include: (i) a description of the type of facility being proposed, (ii) the location of the proposed facility, (iii) the name of the person proposing the construction or development of the facility and the contact information (including a phone number) for that person, (iv) instructions directing the recipient of the notice to send written comments relating to the construction or development of the facility to the Agency within 21 days after the notice is either received by mail or last published in a newspaper of general circulation, and (v) the Agency's address, as well as the phone numbers for the Bureaus and Sections responsible for issuing the permit.

(Source: P.A. 86-1195.)

(415 ILCS 5/22.34)

Sec. 22.34. Organic waste compost quality standards.

(a) The Agency may ~~By January 1, 1994, the Agency shall~~ develop and make recommendations to the Board concerning (i) performance standards for organic waste compost facilities and

(ii) testing procedures and standards for the end-product compost produced by organic waste compost facilities.

The Agency, in cooperation with the Department, shall appoint a Technical Advisory Committee for the purpose of developing these recommendations. Among other things, the Committee shall evaluate environmental and safety considerations, compliance costs, and regulations adopted in other states and countries. The Committee shall have balanced representation and shall include members representing academia, the composting industry, the Department of Agriculture, the landscaping industry, environmental organizations, municipalities, and counties.

Performance standards for organic waste compost facilities may include, but are not limited to ~~shall at a minimum include~~:

(1) the management of potential exposures for human disease vectors and odor;

(2) the management of surface water;

(3) contingency planning for handling end-product compost material that does not meet end-product compost standards adopted by the Board ~~requirements of subsection (b)~~;

(4) plans for intended purposes of end-use product; and

(5) a financial assurance plan necessary to restore the site as specified in Agency permit. The financial assurance plan may include, but is not limited to, posting with the Agency a performance bond or other security for the purpose

of ensuring site restoration.

(b) No later than one year after the Agency makes recommendations to the Board under subsection (a) of this Section ~~By December 1, 1997~~, the Board shall adopt, as applicable:

(1) performance standards for organic waste compost facilities; and

(2) testing procedures and standards for the end-product compost produced by organic waste compost facilities.

The Board shall evaluate the merits of different standards for end-product compost applications.

(c) On-site residential composting that is used solely for the purpose of composting organic waste generated on-site and that will not be offered for off-site sale or use is exempt from any standards promulgated under subsections (a) and (b). Subsection (b)(2) shall not apply to end-product compost used as daily cover or vegetative amendment in the final layer. Subsection (b) applies to any end-product compost offered for sale or use in Illinois.

(d) For the purposes of this Section, "organic waste" means food scrap ~~waste~~, landscape waste, wood waste, livestock waste, crop residue, paper waste, or other non-hazardous carbonaceous waste that is collected and processed separately from the rest of the municipal waste stream.

(e) Except as otherwise provided in Board rules, solid

waste permits for organic waste composting facilities shall be issued under the Board's Solid Waste rules at 35 Ill. Adm. Code 807. The permits must include, but shall not be limited to, measures designed to reduce pathogens in the compost.

(Source: P.A. 87-1227; 88-690, eff. 1-24-95.)

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IC 13-20-10
Chapter 10. Registration of Facilities for Composting Certain Vegetative Matter

IC 13-20-10-1
Applicability of chapter
Sec. 1. (a) This chapter applies to composting of vegetative matter resulting from landscaping maintenance and land clearing projects.
(b) This chapter does not apply to the following:
(1) A person who conducts a composting operation at the person's residence or farm for vegetative matter and other types of organic material that are:
(A) generated by the person's activities; and
(B) stored, treated, or disposed of at the person's residence or farm.
(2) A person who conducts a composting operation that processes less than two thousand (2,000) pounds of vegetative matter during a year.
(3) Temporary stores of vegetative matter where only an incidental amount of composting will occur before removal of the matter.
As added by P.L.1-1996, SEC.10.

IC 13-20-10-2
Registration of facility required for operation
Sec. 2. A person may operate a composting facility for vegetative matter only if the person registers the composting facility with the department.
As added by P.L.1-1996, SEC.10.

IC 13-20-10-3
Registration applications; contents
Sec. 3. To register a composting facility for vegetative matter with the department, a person must submit an application to the department that contains the following:
(1) A:
(A) legal description; and
(B) topographic map;
of the site on which the composting facility will be located.
(2) A description of the composting facility that indicates the area to be served by the composting operation.
(3) An estimate of the volume of materials that will be processed annually by the composting facility.
(4) Any other information that the department or the solid waste management board requires by rule.
As added by P.L.1-1996, SEC.10.

IC 13-20-10-4
Location of active areas of facilities
Sec. 4. Except as provided in sections 5 and 6 of this chapter, the

active area of a composting facility for vegetative matter:

(1) may not be located:

(A) within two hundred (200) feet of a well that supplies potable water; or

(B) within two hundred (200) feet of a residential structure that exists at the time that the composting facility initially registers under this chapter;

(2) must be located outside the ten (10) year floodplain, except a facility that is either:

(A) operated in conjunction with a publicly owned works permitted under IC 13-15-3; or

(B) designed and operated to provide adequate controls to prevent ground or surface water contamination in the event a ten (10) year flood occurs;

(3) must be designed and operated to:

(A) prevent compost from being placed within five (5) feet of a water table or provide adequate controls to prevent ground or surface water contamination;

(B) adequately control runoff from the composting facility; and

(C) manage leachate that is generated by the composting facility; and

(4) must include controls for the following:

(A) Dust.

(B) Odor.

(C) Noise.

As added by P.L.1-1996, SEC.10.

IC 13-20-10-5

Location of active areas of facilities; ordinances

Sec. 5. A unit of local government may adopt an ordinance providing the distance required between the active area of a composting facility for vegetative matter and an existing residence. An ordinance adopted under this section may not do any of the following:

(1) Allow the active area of a composting facility to locate less than two hundred (200) feet from an existing residence.

(2) Require the active area of a composting facility to locate more than six hundred (600) feet from an existing residence.

As added by P.L.1-1996, SEC.10.

IC 13-20-10-6

Location of active areas of facilities; prerequisite for facility near residence

Sec. 6. The active area of a composting facility for vegetative matter may be located less than two hundred (200) feet from a residence if:

(1) no unit of local government with jurisdiction over:

(A) the residence; or

(B) the composting facility;

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has adopted an ordinance under section 5 of this chapter or IC 13-7-35-6(b) (before its repeal); and

(2) the composting facility obtains written consent from the occupant and the owner of the residence.

As added by P.L.1-1996, SEC.10.

IC 13-20-10-7

Annual reports

Sec. 7. A person who operates a composting facility for vegetative matter that must be registered under this chapter shall submit an annual report to the department:

(1) before February 1 of each year; and

(2) that indicates the volume of material processed by the composting facility during the preceding year.

As added by P.L.1-1996, SEC.10.

IC 13-20-10-8

Expiration and renewal of registrations

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Sec. 8. A registration under this chapter:

(1) expires five (5) years after the date the composting facility for vegetative matter is registered; and

(2) may be renewed by the person who registered the composting facility if the person applies to the department.

As added by P.L.1-1996, SEC.10.

IC 13-20-10-9

Combination of vegetative matter with solid waste prohibited

Sec. 9. Except as provided in IC 13-20-9-1, a person may not knowingly combine vegetative matter resulting from landscaping maintenance and land clearing projects that is intended for:

(1) collection; and

(2) disposal at a solid waste landfill;

with another type of solid waste.

As added by P.L.1-1996, SEC.10.

IC 13-20-10-10

Rules

Sec. 10. The board may adopt rules under IC 4-22-2 to implement this chapter.

As added by P.L.1-1996, SEC.10.

Iowa Administrative Code 567
CHAPTER 105 ORGANIC MATERIALS COMPOSTING FACILITIES

567—105.1(455B,455D) General. This chapter shall apply to the composting of solid and yard wastes. Composting facilities may include vermicomposting, turned windrows, aerated static piles, aerated in-vessel systems, or other methods approved by the department. Composting facilities existing as of June 19, 2002, must comply with the requirements of this chapter within two years or by the permit renewal date, whichever is later.

105.1(1) Definitions. For the purposes of this chapter, the following definitions apply:

"Agricultural waste" means organic materials normally discarded during the production of plants and animals from agronomic, horticultural or silvicultural operations.

"Agricultural waste" includes but is not limited to manure, crop residuals, bedding, and other vegetative by-products produced during farm processing. Dead animals are not included.

"Best management practices" means the practices described in the most recent version of the Compost Facility Operating Guide published by the United States Composting Council or other best management practices as approved by the department.

"Bulking agent" means a material that contributes structure and porosity, usually a dry, rigid material such as shredded wood or tire chips.

"Compostable" means an organic material that undergoes degradation by biological processes during composting to yield carbon dioxide, water, inorganic compounds and biomass.

"Compostable plastics" means a plastic that undergoes degradation by biological processes at a rate consistent with other known compostable materials and leaves no visually distinguishable or toxic residue. Testing according to ASTM D6400-00 criteria should be used to designate compostable plastics.

"Composting" means the accelerated biological decomposition of organic matter under managed aerobic conditions resulting in a stable, innocuous final product.

"Composting facility" means all related receiving, processing, production, curing, and storage areas and necessary roads, buildings, equipment, litter control devices, pollution control devices, fire control devices, landscaping, gates, personnel and maintenance facilities, sewer and water lines, and process water.

"Compost leachate" means a liquid that has percolated through or drained from compost.

"Compost maturity," according to Test Methods for the Examination of Composting and Compost (TMECC), means an organo-chemical state of compost that indicates the presence or lack of organic phytotoxic chemicals in stable compost. Measurements for maturity are based on the amount of volatile fatty acids present. Mature compost will have fatty acids of no more than 2 mg/g dry weight solids or as specified in the most recent version of TMECC.

"Compost stability," according to TMECC, means a stage in the composting process when microbial activity is diminished with the corresponding decrease of available organic carbon and other energy sources. Stability is measured through respiration. Stable compost will have oxygen uptake rates in the range of 0-3.5 mg O2/g BVS/hr. or as specified in the most recent version of TMECC.

"Cured compost" means compost that is both stable and mature according to the definitions found in this chapter.

"Curing" means a process in which compost is further monitored to control pathogen regrowth while increasing stability and maturity.

"Finished compost" means cured and, if necessary, screened or refined.

"Household organic waste" means general household compostable items such as food residuals and paper produced on premises.

"Infectious waste" means waste that is infectious, including but not limited to contaminated sharps, cultures, and stocks of infectious agents, blood and blood products, pathological waste, and contaminated animal carcasses from hospitals or research laboratories.

"Municipality" means any city or county in the state.

"Nuisance" means whatever is injurious to health, indecent, or unreasonably offensive to the senses, or an obstruction to the free use of property, so as essentially to unreasonably interfere with the Ch 105, p.2 Environmental Protection[567] IAC 7/2/08 comfortable enjoyment of life or property, and a civil action by

ordinary proceedings may be brought to enjoin and abate the same and to recover damages sustained on account thereof.
“Organic materials” means any material of animal or plant origin.
“Premises” means a geographically contiguous property owned by a generator or noncontiguous property owned by a generator and that is connected by a controlled right-of-way to which the public does not have access. Two or more pieces of property that are geographically contiguous and divided by public or private right-of-way are a single premises.
“Small compost facilities” means facilities meeting the requirements set forth in rule 105.5(455B,455D).
“Solid waste composting” means the composting of any organic material with or without yard waste. For the purposes of this chapter, facilities exempt under 105.2(455B,455D) are not considered solid waste composting facilities. In addition, facilities in compliance with 105.4(455B,455D), 105.5(455B,455D) or 105.6(455B,455D) are not considered solid waste composting facilities. Only facilities that are required to obtain or have a permit are considered solid waste composting facilities.
“Vector” means a carrier organism that is capable of transmitting a pathogen from one organism to another. Vectors include, but are not limited to, birds, rats and other rodents, and insects.
“Yard waste” means vegetative matter such as grass clippings, leaves, garden waste, brush and trees, and any clean wood waste which is necessary as bulking agent and which is free of coatings and preservatives.
105.1(2) There are three different levels of compost facility regulation:
a. Exempt operations in accordance with 105.2(455B,455D).
b. Permit by rule. Yard waste composting facilities are exempt from permitting if operated in conformance with 105.3(455B,455D) and 105.4(455B,455D). Facilities that compost dead farm animals are exempt from permitting if operated in conformance with 105.3(455B,455D) and 105.6(455B,455D). Small quantity solid waste compost operations as defined in 105.5(455B,455D) are exempt from permitting if operated in conformance with 105.3(455B,455D) and 105.5(455B,455D).
c. Solid waste composting. Solid waste composting facilities must obtain a permit from the department. Solid waste composting facilities involving municipal sewage sludge shall also operate in conformance with 567—Chapter 67.
105.1(3) Burial of yard waste at a sanitary landfill is prohibited. Acceptance of yard waste by a hauling firm or at a transfer station for burial at a sanitary landfill is also prohibited. However, yard waste that has been separated at its source from other solid waste may be accepted by a sanitary landfill for the purposes of soil conditioning or composting. Yard waste accepted by a sanitary landfill for the purposes of soil conditioning shall be used only on finished areas of the landfill that have received the final earthen cover, developed areas with intermediate cover, and restoration of soil borrow areas. Burning of yard waste at a sanitary disposal project is prohibited. 105.1(4) Each city and county shall, by ordinance, require persons within the city or county to separate yard waste from other solid waste generated. Municipalities which provide for collection of solid waste shall also provide for separate collection of yard waste.
105.1(5) Land application of yard waste shall be in conformance with 567—Chapter 121.
567—105.2(455B,455D) Exemptions. The following projects are exempt from this chapter. This exemption is not a defense to a nuisance action brought pursuant to Iowa Code chapter 657.
105.2(1) Yard waste or household organic waste composted and used on the same premises where it originated.
105.2(2) Composting facilities involving agricultural waste, excluding dead animals, and clean wood waste which is necessary as bulking agent and which is free of coatings and preservatives. Use of any other materials as bulking agent shall require prior approval by the department. If agricultural waste is mixed with other wastes including dead animals for the purpose of composting, then this chapter shall apply unless the other wastes have been preapproved by the department as necessary as bulking agent.
105.2(3) Yard waste, household organic waste, and agricultural waste generated, composted together in any combination and used on the same premises where they originated.
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567—105.3(455B,455D) General requirements for all composting facilities not exempt pursuant to 105.2(455B,455D). This rule applies to all composting facilities not exempt under 105.2(455B,455D). Facilities exempt from permitting that do not operate in accordance with this chapter may as a result be required to obtain a solid waste composting permit. Composting facilities shall also operate in accordance with all applicable city and county ordinance and permitting requirements.

105.3(1) The composting facility shall be 500 feet from any existing inhabited residence, not including the residence of the person owning/operating the compost facility, at the time the permit application was received by the department. Composting must be done outside of wetlands, at least 200 feet from public wells, 100 feet from private wells, 50 feet from property lines, and 100 feet from flowing or intermittent streams, lakes, or ponds. Composting done inside the 100-year flood plain shall be in accordance with all local and department regulations including 567—71.5(455B). Sediment ponds, engineered wetlands or other constructed waterways for the purpose of pollution control are excluded from this requirement.
105.3(2) Composting shall be performed in a manner that minimizes the formation of compost leachate by the facility.
105.3(3) Measures shall be taken to prevent water from running onto the facility from adjacent land and to prevent compost leachate and runoff from leaving the composting facility. Runoff from the composting facility must be properly managed.
105.3(4) Facilities shall be designed, constructed, and maintained so as to minimize ponding of water or liquids. Any ponding that does occur shall be corrected through routine facility maintenance within 48 hours after the termination of the event causing the ponding.
105.3(5) Composting must be done on an all-weather surface of compacted soil, compacted granular aggregates, asphalt, concrete or similar relatively impermeable material that will permit accessibility during periods of inclement weather and prevent contamination of surface water and groundwater.
105.3(6) Solid waste which cannot be composted or which is removed during processing shall be properly disposed of. Infectious waste shall not be accepted for composting at any composting facility unless approved by the department in writing.
105.3(7) Solid waste materials shall be managed through the entire process in accordance with best management practices to minimize conditions such as odors, dust, noise, litter and vectors which may create nuisance conditions or a public health hazard.
105.3(8) Storage of cured or finished compost shall be limited to 18 months. The 18-month period may be extended with prior written approval from the department.
105.3(9) If compost is offered for sale as a soil conditioner or fertilizer, the compost must be registered by the department of agriculture and land stewardship under Iowa Code chapter 200, Fertilizers and Soil Conditioners. Sale shall be in compliance with all applicable federal and state laws and local ordinances and regulations.
105.3(10) Compost shall not be applied to land, sold or given away unless the concentration of human-made inert materials such as glass, metal, and plastic is less than 1.5 percent by dry weight. Compost shall not be applied to land, sold or given away unless the size of any human-made inert materials is less than 13 mm (0.512 inches).
567—105.4(455B,455D) Specific requirements for yard waste composting facilities. Yard waste composting facility operators are encouraged to be trained, tested, and certified by a department-approved certification program upon approval of such a program by the department. 105.4(1) Before the composting facility commences operation, the department and the field office of the department serving the composting facility's location shall be notified in writing of the following:
a. The location of the composting facility.
b. Legal description of the facility.
c. Landowner's name, telephone number, and mailing address.
d. Responsible party's name, telephone number, and mailing address.
e. Annual capacity of the facility.
f. Method of composting to be employed. Ch 105, p.4 Environmental Protection[567] IAC 7/2/08
g. Source of the yard waste and any necessary bulking agent. This description must include a description of service area defined in terms of municipalities wherein sources of the material are located.
105.4(2) The facility shall have a permanent sign posted at the entrance specifying:
a. Name of operation.
b. Operating hours.
c. Materials which are accepted or the statement "All materials must have prior approval."
d. Telephone number of 24-hour emergency contact person.
105.4(3) The area of the composting facility must be large enough for the volume of yard waste composted.
105.4(4) Yard waste must be taken out of containers before composting, unless the containers are compostable.
105.4(5) Aerobic conditions shall be maintained in accordance with best management practices.

105.4(6) An annual report for the previous fiscal year beginning July 1 and ending June 30 shall be submitted to the department by July 31 of each year. The report shall be submitted using Form 542-3276C, provided by the department and all applicable sections of the form must be completed.
These records shall be maintained by the facility for a period of three years for inspection and evaluation by the department.
567—105.5(455B,455D) Small composting facilities receiving off-premises materials. Small composting facilities are exempt from obtaining a solid waste composting permit provided the facility complies with 105.3(455B,455D) and 105.5(455B,455D).
105.5(1) Acceptable materials and amounts. Yard waste and food residuals may be received from off premises at a total rate of two tons or less per week for composting either singly, in combination, or with agricultural waste. Any clean wood waste free of coating and preservatives may be used as a bulking agent. The two tons per week combined weight limit does not apply to bulking agent. However, the amount of bulking agent received must be appropriate for the amount of compostable materials received. Facilities composting over two tons of food residuals and yard waste per week in any combination from off premises must obtain a permit (Form 50A (542-1542A)) and adhere to the solid waste composting requirements stipulated in 105.7(455B,455D) through 105.14(455B,455D). If only agricultural wastes are collected and composted, this rule does not apply. If only yard wastes are collected and composted, this rule does not apply.
105.5(2) Notification. Before the composting facility commences operation, the department and the field office of the department serving the composting facility's location shall be notified in writing of the following:
a. The location of the composting facility.
b. Legal description of the facility.
c. Landowner's name, telephone number, and mailing address.
d. Responsible party's name, telephone number, and mailing address.
e. Annual capacity of the facility.
f. Method of composting to be employed.
g. Source of the feedstock and any necessary bulking agent. This description must include a description of service area defined in terms of municipalities wherein sources of the material are located.
105.5(3) Signage. The facility shall have a permanent sign posted at the entrance specifying:
a. Name of operation.
b. Operating hours.
c. Materials which are accepted or the statement "All materials must have prior approval."
d. Telephone number of 24-hour emergency contact person.
105.5(4) Reporting. An annual report for the previous fiscal year beginning July 1 and ending June 30 shall be submitted to the department by July 31 of each year. The report shall be submitted using Form 542-3276C, provided by the department, and all applicable sections of the form must be completed.
These records shall be maintained by the facility for a period of three years for evaluation by the department.
105.6(455B,455D) Specific requirements for composting of dead farm animals. Operators of dead farm animal composting facilities are encouraged to be trained, tested, and certified by a department-approved certification program upon approval of such a program by the department. A facility that composts dead farm animals is exempt from permitting if the following operating requirements are met and the facility is in compliance with 105.3(455B,455D). Businesses or individuals that are neither the owner nor operator of any of the sites where dead farm animals are generated and that want to compost dead farm animals must obtain a permit in accordance with 567—105.8(455B,455D).
105.6(1) Before commencing operation, the operator is encouraged to notify the department field office with jurisdiction over the facility. The department may provide general assistance, such as locating bulking agents and providing advice in regard to siting considerations such as pad location, sizing and design, to facilities notifying the department and requesting assistance.
105.6(2) Farm animals known or suspected to have died from an infectious disease that can be spread by scavengers or insects or that died from a reportable disease shall be disposed of in accordance with the requirements of the Iowa department of agriculture and land stewardship and the department.
105.6(3) Transportation vehicles shall be constructed to prevent the release of mortality contaminated materials under normal operating conditions. The most direct haul route that avoids biosecurity risks shall be utilized.
105.6(4) The composting facility shall be designed to accommodate at least the average annual death loss for all sites using the composting facility. Facility design shall also take into account space requirements for managing

raw materials (e.g., additional bedding and bulking agents needed for mortality composting) and finished compost.
105.6(5) Animal mortalities from a catastrophic event, such as a fire or electrical outage, shall not be composted until the department field office is contacted and arrangements are approved for the appropriate treatment or disposal of the animals. The facility shall contact the department field office with jurisdiction over the facility as soon as possible after such a catastrophic event occurs to receive approval of the disposal option.
105.6(6) Dead farm animals shall be incorporated into the composting process within 24 hours of death. An adequate base layer (from 12 to 24 inches thick, depending on the size and number of dead farm animals) with 6 to 12 inches of bulking agent between carcasses and an additional 12 inches of cover material shall be maintained around carcasses at all times to control mortality leachate and odors and to prevent access by scavenging domestic and wild animals.
105.6(7) Dead farm animals shall not be removed from composting until all soft tissue is fully decomposed.
105.6(8) Compost (including bones that have not fully decomposed) shall be applied to cropland in a manner that minimizes the runoff into a water of the state. Application of the compost to lands other than cropland shall require prior approval by the department.
567—105.7(455B,455D) Permit requirements for solid waste composting facilities.
105.7(1) Permit required. Solid waste composting facilities shall not be constructed or operated without a permit from the department. As part of the sanitary disposal project permit issuance procedures, these facilities must meet comprehensive planning requirements. Since these facilities serve as alternatives to landfilling, comprehensive planning requirements are minimal and are satisfied through the information provided in the permit application submittal and by compliance with the reporting requirements set forth in 105.12(455B,455D). If a solid waste composting facility is formally part of a planning area’s integrated waste management system, the operator must participate in that area’s planning activities and the facility must be included in all plan submittal documents. The issuance of a permit by the department in no way relieves the applicant of the responsibility of complying with all other local, state, or federal statutes, ordinances, and rules or other requirements applicable to the construction and operation of a solid waste composting facility.
105.7(2) Construction and operation. All solid waste composting facilities shall be constructed and operated according to the plans and specifications as approved by the department and the conditions of the permit. The approved plans and specifications shall constitute a term of the permit.
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105.7(3) Transfer of title and permit. If title to a solid waste composting facility is transferred, then the department shall transfer the permit within 60 days if the department finds that the following requirements have been met:
a. The title transferee has applied in writing to the department within 30 days of the transfer of title to request a transfer of the permit.
b. The permitted facility is in compliance with the rules and conditions of the permit.
105.7(4) Permit conditions. Any permit may be issued subject to conditions specified in writing by the department that are necessary to ensure that the sanitary disposal project can be constructed and operated in compliance with Iowa Code chapters 455B and 455D and these rules.
105.7(5) Effect of revocation. If a permit held by any public or private agency for a solid waste composting facility is revoked by the director, then no new permit shall be issued to that agency for that sanitary disposal project for a period of one year from the date of revocation. This subrule shall not prohibit the issuance of a permit for the sanitary disposal project to another public or private agency.
105.7(6) Inspection prior to commencing operation. The department shall be notified 30 days prior to scheduled completion of a solid waste composting facility and when the construction has been completed. The department shall then complete an inspection of the facility to determine if the sanitary disposal project has been constructed in accordance with the plans and specifications and permit requirements. No solid waste shall be accepted by the facility until it has been inspected and approved by the department.
105.7(7) Duration and renewal of permits. Solid waste composting facility permits shall be issued for a period of three years, and are renewable for similar terms, unless otherwise specified pursuant to 105.7(5).
105.7(8) Request for and approval of permit renewal. Requests for permit renewals shall be in writing and must be filed at least 90 days before the expiration of the current permit and submitted on a Form 50A to the department. The department may request that additional information be submitted for review in order to make a permit renewal decision. Comprehensive plan update requirements are satisfied through the information provided

in the permit renewal application submittal and by compliance with the reporting requirements set forth in 105.12(455B,455D). If a solid waste composting facility is formally part of a planning area's integrated waste management system, the operator must participate in that area's plan update submittals. The department shall renew the permit if, after a review and inspection of the facility and its compliance history, the department finds that the facility is in compliance with its current permit and these rules. If the facility is found not to be in compliance with its current permit and these rules, then the sanitary disposal project shall be brought into compliance, or placed on a compliance schedule approved by the department, before the permit is renewed pursuant to 105.7(5).
105.7(9) Facility expansion. Prior to the facility's expanding the amount or types of materials accepted, the facility shall make a request in writing and obtain approval from the department for an amendment to the permit.
105.7(10) Process change. Prior to a change in the facility's process, the facility shall make a request in writing and obtain approval from the department for an amendment to the permit.
567—105.8(455B,455D) Permit application requirements for solid waste composting facilities.
105.8(1) A permit application for a new facility shall include a completed Form 50A (542-1542A) and a map or aerial photograph. This map or aerial photograph shall identify:
a. The boundaries of the facility.
b. Wells, streams, creeks, rivers, ponds, sinkholes, and drainage wells.
c. North or other principal compass points.
d. Zoning and land use within one-half mile of the closest portion of the facility.
e. Haul routes to and from the facility with load limits or other restrictions.
f. Homes and buildings within one-half mile of the closest portion of the facility.
g. Section lines or other legal boundaries. IAC 7/2/08 Environmental Protection[567] Ch 105, p.7
h. Any nearby runway used or planned to be used by turbojet or piston-type aircraft at FAA-certified airports.
105.8(2) Design requirements. Design documents must be prepared by an Iowa-licensed professional engineer (Iowa Code chapter 542B) and must include the following:
a. Equipment to be installed, litter control devices, pollution control devices, fire control devices, landscaping, gates, personnel and maintenance facilities, sewer and water lines, and process water, and dimensions, details, and capacities of the proposed receiving, processing, production, curing, and storage areas.
b. Design calculations justifying the size of the composting areas. The areas for composting must be adequate for the volume of solid waste being composted in accordance with best management practices.
c. Descriptions, specifications, and capacities of proposed equipment to be used in composting.
d. Flow diagram of all operating steps.
e. Composition of the operating surface. Receiving, processing, production, and curing must take place on a constructed, impervious base that can support the load of the equipment used under all weather conditions. The permeability coefficient of the base must be less than 1 × 10-7 cm/sec (0.00028 feet/day). Storage areas for cured/finished compost must permit accessibility during periods of inclement weather.
f. Dimensions, details, and capacities of storm water run-on and runoff management systems of the composting facility. The facility may need a storm water permit.
g. Proof of the applicant's ownership of the site and legal entitlement to use the site as a composting facility.
105.8(3) The operating plan shall provide the following:
a. Method of composting.
b. Duration of composting with a time frame for receiving, processing, production, curing, and storage.
c. Description of storage of raw materials including quantity and types.
d. Description of the types, amounts, and sources of wastes to be received and processed daily. This description must include a description of service area defined in terms of municipalities wherein sources of the material are located.
e. Description of the aeration method and the aeration frequency to be used to maintain aerobic conditions in accordance with best management practices.
f. Description of the methods to minimize and manage odors, dust, vectors, noise and litter.
g. Description of the specific procedures to be followed in case of equipment breakdown, maintenance downtime, and fire in equipment, composting material or buildings to include methods to be used to remove or dispose of accumulated waste and burned or damaged material.
h. Plans for using or marketing the finished compost.
i. Method(s) of disposing of collected storm water.

j. Method(s) of maintaining storm water management systems to maintain design volume and to locate and repair leaks in the system.
k. Description of the monitoring, sampling, and analysis procedures and schedule for testing the composting process and product including sampling frequency, sample size and number, and sample locations. A facility-specific time-temperature monitoring plan for pathogen kill shall be included in the operating plan.
567—105.9(455B,455D) Specific operating requirements for permitted solid waste composting facilities. In addition to the following, all permitted solid waste composting facilities shall comply with 105.3(455B,455D).
105.9(1) Access.
a. Access to the facility shall be restricted with a lockable gate at the entrance to the facility.
b. Access to the facility shall be allowed only when an employee, agent or representative of the facility is on duty.
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c. Emergency access to the facility shall be provided. Fire lanes shall be maintained to provide access for firefighting equipment as required by the local fire department.
105.9(2) The facility shall have a permanent sign posted at the entrance specifying:
a. Name of operation.
b. Operating hours.
c. Materials which are accepted or the statement “All materials must have prior approval.”
d. Telephone number of 24-hour emergency contact person.
105.9(3) All materials received must be incorporated into the composting process within 24 hours of receipt unless storage of these materials is specified in the plan and approved by the department.
105.9(4) Sample collection, preservation, and analysis must be done in a manner which ensures valid and representative results. Facilities should follow the most recent version of the Test Methods for the Examination of Composting and Compost guidelines or other testing procedures as approved by the department. Unless otherwise proposed in the operating plan and authorized in the permit, the permit holder shall test at a minimum:
a. Twice weekly temperature readings of compost piles, batches, and windrows. Compost must be held at a temperature above 55 degrees Celsius (131 degrees Fahrenheit) for an appropriate amount of time, in accordance with best management practices, in order to achieve pathogen reduction.
b. Weekly moisture levels of compost piles, batches, and windrows.
c. Testing of the finished product. Compost shall not be applied to land, sold or given away for household use unless the following requirements are met. If the following requirements are not met, compost must be applied according to 567—Chapter 121.
(1) The density of fecal coliform shall be less than 1000 most probable number (MPN) per gram of total solids (dry weight basis) or the density of Salmonella sp. bacteria in compost shall be less than three MPN per four grams of total solids (dry weight basis).
(2) The concentrations of human-made inert materials comply with 105.3(10), and the concentrations of all metals are less than the following:

Metal	Concentration mg/kg dry weight	Metal	Concentration mg/kg dry weight
Arsenic (As)	41	Mercury (Hg)	17
Cadmium (Cd)	39	Nickel (Ni)	420
Copper (Cu)	1500	Selenium (Se)	36
Lead (Pb)	300	Zinc (Zn)	2800

567—105.10(455B,455D) Operator certification for permitted solid waste composting facilities. All permitted solid waste composting facilities shall meet the following requirement. The person responsible for daily operation of the facility shall be certified by a department-approved program upon approval of such a program by the department. The certification must be renewed every three years.
567—105.11(455B,455D) Record-keeping requirements for solid waste composting facilities. All permitted solid waste composting facilities shall meet the following requirements. The following records shall be maintained by the facility for a period of three years and at the facility at all times and shall be submitted to the department upon request:
1. Analytical results described in 105.9(4). These results shall be recorded on a department-approved reporting form.
2. Types and weight of compostable materials and bulking agent, in tons, accepted at the facility

annually.
3. Weight of compost, in tons, removed from the facility annually.
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4. A copy of the plan, the permit, annual reports, and the current storm water pollution prevention plan.
105.12(455B,455D) Reporting requirements for solid waste composting facilities. An annual report for the previous fiscal year beginning July 1 and ending June 30 shall be submitted to the department by July 31 of each year by all permitted solid waste composting facilities. The report shall be submitted using Form 542-3276C, provided by the department, and all applicable sections of the form must be completed.
105.13(455B,455D) Closure requirements for solid waste composting facilities. All permitted solid waste composting facilities shall meet the following requirements. For each composting facility, a closure plan shall be submitted to the department containing a description of the steps necessary to close the facility. A permit shall not be issued unless the closure plan is approved.
105.13(1) An updated closure plan, including a schedule for closure, shall be submitted to the department at least 60 calendar days prior to the proposed termination date for the facility.
105.13(2) Unless an alternative schedule is approved by the department, within six months of the facility's ceasing operation, all waste and unfinished and finished compost shall be removed from the premises.
105.13(3) Facilities beneficially reusing material in order to comply with 105.13(2) are required to submit in written form all agreements for this reuse. This beneficial reuse shall include names of parties involved, amount of material utilized, and cost per ton. The closure plan will not be approved until these agreements are submitted to and approved by the department. The department shall also be notified of any changes in the agreements.
105.13(4) Upon closure, all permitted solid waste composting facilities shall perform the following activities:
a. Properly dispose of all organic material, solid waste and litter at the premises.
b. Lock all doors, gates, entrances, and exits.
c. Report the completion of these activities to the local political jurisdiction, the department, and the department field office serving the composting facility.
567—105.14(455B,455D) Composting facility financial assurance. Permitted solid waste composting facilities receiving more than 5,000 tons of feedstock annually, bulking agent excluded, must obtain and submit a financial assurance instrument to the department for waste materials received and stockpiled by the facility in accordance with this rule. The financial assurance instrument shall provide monetary funds to properly dispose of any preprocessed and postprocessed stockpiled materials that may remain at a facility due to the owner's or operator's failure to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.
105.14(1) No permit without financial assurance. The department shall not issue or renew a permit to an owner or operator of a solid waste composting facility until a financial assurance instrument has been submitted to and approved by the department.
105.14(2) Proof of compliance. Proof of the establishment of the financial assurance instrument and compliance with this rule, including a current closure cost estimate, shall be submitted to the department within 30 days of the close of the permit holder's first fiscal year that begins after June 19, 2002, or at the time of application for a permit for a new solid waste composting facility. The owner or operator must provide continuous coverage for closure and submit proof of compliance, including an updated closure cost estimate, with each permit renewal thereafter until released from this requirement by the department.
105.14(3) Use of one financial assurance instrument for multiple permitted activities. Solid waste composting facilities required to maintain financial assurance pursuant to any other provisions of 567—Chapters 100 to 123 may satisfy the requirements of this rule by the use of one financial assurance instrument if the permit holder ensures that the instrument provides financial assurance for an amount at least equal to the current cost estimates for closure of all sanitary disposal project activities covered.
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105.14(4) Financial assurance amounts required. The estimate submitted to the department must be certified by an Iowa-licensed professional engineer and must account for at least the following factors determined by the department to be minimal necessary costs for closure:
a. Transportation costs, which include the cost to load the material, and total tip fees to properly dispose of the maximum tonnage of received materials that could be managed and stockpiled by the compost facility. Also included shall be the costs of properly removing any wastewater held at the facility, or

b. Cost of a beneficial reuse option, approved pursuant to subrule 105.13(3), for the total amount of material that could be managed and stockpiled by the composting facility. If the total amount of material will not be beneficially reused, the remainder of the cost shall be calculated according to paragraph 105.14(4)“a.” Also included shall be the costs of properly removing any wastewater held at the facility.
c. The costs for maintaining financial assurance pursuant to any other provisions of 567—Chapters 100 to 123, if any, in accordance with subrule 105.14(3).
105.14(5) Acceptable financial assurance instruments. The financial assurance instrument shall be established in an amount equal to the cost estimate prepared in accordance with subrule 105.14(4) and shall not be canceled, revoked, disbursed, released, or allowed to terminate without the approval of the department. Financial assurance may be provided by cash in the form of a secured trust fund or local government dedicated fund, surety bond, letter of credit, or corporate or local government guarantee as follows:
a. Secured trust fund. The owner or operator of a solid waste composting facility or entity serving as a guarantor may demonstrate financial assurance for closure by establishing a secured trust fund that conforms to the requirements of this paragraph.
(1) The trustee must be an entity which has the authority to act as a trustee and whose trust operations are regulated and examined by a federal or state agency. The fund shall be restricted for the sole purpose of funding closure activities at the facility, and a copy of the trust agreement must be submitted to the department and placed in the facility’s official files.
(2) A secured trust fund shall name the department of natural resources as the entity authorized to draw funds from the trust, subject to the provision of proper notification to the trust officer of failure by the permittee to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.
(3) Moneys in the fund shall not be assigned for the benefit of creditors with the exception of the state.
(4) Moneys in the fund shall not be used to pay any final judgment against a permit holder arising out of the ownership or operation of the site during its active life or after closure.
(5) The owner or operator or another person authorized to conduct closure activities may request reimbursement from the trustee for closure expenditures as they are incurred. Requests for reimbursement shall be granted by the trustee only if sufficient funds are remaining in the trust fund to cover the remaining costs of closure and if documentation of the justification for reimbursement has been submitted to the department for prior approval.
(6) If the balance of the trust fund exceeds the current cost estimate for closure at any time, the owner or operator may request withdrawal of the excess funds from the trustee so long as the withdrawal does not cause the balance to be reduced below the amount of the current cost estimate.
b. Local government dedicated fund. The owner or operator of a publicly owned solid waste composting facility or a local government serving as a guarantor may demonstrate financial assurance for closure by establishing a dedicated fund that conforms to the requirements of this paragraph.
(1) The fund shall be dedicated by state constitutional provision or local government statute, charter, ordinance, resolution or order as a restricted fund to pay for closure costs arising from the operation of the solid waste composting facility.
(2) A copy of the document establishing the dedicated fund must be submitted to the department and placed in the facility’s official files.
(3) If the balance of the dedicated fund exceeds the current cost estimate for closure at any time, the owner or operator may withdraw excess funds so long as the withdrawal does not cause the balance to be reduced below the amount of the current cost estimate.
c. Surety bond. A surety bond must be written by a company authorized by the commissioner of insurance to do business in the state. The surety bond shall comply with the following:
(1) The bond shall be in a form approved by the commissioner of insurance and shall be payable to the department of natural resources.
(2) The bond shall be specific to a particular facility for the purpose of properly disposing of any solid waste that may remain on site due to the owner’s or operator’s failure to properly close the site within 30 days of permit suspension, termination, revocation, or expiration.
(3) The owner or operator shall provide the department with a statement from the surety with each permit application renewal, noting that the bond is paid and current for the permit period for which the owner or operator has applied for renewal.
d. Letter of credit. The issuing institution must be an entity which has the authority to issue letters of credit and whose letter-of-credit operations are regulated and examined by a federal or state agency.

(1) The owner or operator must submit to the department a copy of the letter of credit and place a copy in the facility's official files.
(2) A letter from the owner or operator referring to the letter of credit by number, issuing institution, and date, and providing the name and address of the facility and the amount of funds assured, must be included with the letter of credit submitted to the department and placed in the facility's files.
(3) The letter of credit must be irrevocable and must be issued for a period of at least one year. The letter of credit must provide that the expiration date will be automatically extended for a period of at least one year unless the issuing institution has canceled the letter of credit by sending notice of cancellation by certified mail to the owner or operator and to the department 90 days in advance of cancellation. When such notice is provided, the owner or operator shall, within 60 days, provide to the department adequate proof of alternative financial assurance, notice of withdrawal of cancellation, or proof of a deposit of a sum equal to the amount of the letter of credit into a secured trust fund that meets the requirements of paragraph 105.14(5)"a." If the owner or operator has not complied with this subrule within the 60-day time period, the issuer of the letter of credit shall deposit a sum equal to the amount of the letter of credit into the secured trust fund established by the owner or operator. The provision of funds by the issuer of the letter of credit shall be considered an issuance of a loan to the owner or operator, and the terms of that loan shall be governed by the letter of credit or subsequent agreement between those parties. The state shall not be considered a party to this credit transaction.
e. Corporate guarantee. An owner or operator may meet the requirements of this rule by obtaining a written guarantee. The guarantor must be the direct or higher-tier parent corporation of the owner or operator, an owner or operator whose parent corporation is also the parent corporation of the owner or operator, or an owner or operator with a "substantial business relationship" with the owner or operator.
(1) The terms of the written guarantee must provide that within 30 days of the owner's or operator's failure to perform closure of a facility covered by the guarantee, the guarantor will:
1. Perform closure or pay a third party to perform closure as required (performance guarantee);
2. Establish a fully funded secured trust fund as specified in paragraph 105.14(5)"a" in the name of the owner or operator (payment guarantee); or
3. Establish an alternative financial assurance instrument in the name of the owner or operator as required by this rule.
(2) The guarantor must satisfy one of the following three conditions:
1. A current rating for its senior unsubordinated debt of AAA, AA, A, or BBB as issued by Standard & Poor's or Aaa, Aa, A, or Baa as issued by Moody's; or
2. A ratio of less than 1.5 comparing total liabilities to net worth; or
3. A ratio of greater than 0.10 comparing the sum of net income plus depreciation, depletion and amortization, minus $10 million, to total liabilities.
(3) The tangible net worth of the guarantor must be greater than the sum of the current closure cost estimate and any other environmental obligations, including other financial assurance guarantees.
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(4) The guarantor must have assets amounting to at least the sum of the current closure cost estimate and any other environmental obligations, including other financial assurance guarantees.
(5) Record-keeping and reporting requirements. The guarantor must submit the following records to the department and place a copy in the facility's official files:
1. A copy of the written guarantee between the owner or operator and the guarantor.
2. A letter signed by a certified public accountant and based upon a certified audit that:
● Lists all the current cost estimates covered by a guarantee including, but not limited to, cost estimates required by subrule 105.14(4); cost estimates required for municipal solid waste management facilities pursuant to 40 CFR Part 258; cost estimates required for UIC facilities under 40 CFR Part 144, if applicable; cost estimates required for petroleum underground storage tank facilities under 40 CFR Part 280, if applicable; cost estimates required for PCB storage facilities under 40 CFR Part 761, if applicable; and cost estimates required for hazardous waste treatment, storage, and disposal facilities under 40 CFR Parts 264 and 265, if applicable; and
● Provides evidence demonstrating that the guarantor meets the conditions of subparagraphs 105.14(5)"e"(2), (3) and (4).
3. A copy of the independent certified public accountant's unqualified opinion of the guarantor's financial statements for the latest completed fiscal year. In order for the guarantor to be eligible to use the guarantee, the guarantor's financial statements must receive an unqualified opinion from the independent certified public

accountant. An adverse opinion or disclaimer of opinion shall be cause for disallowance of this instrument. A qualified opinion related to the demonstration of financial assurance may, at the discretion of the department, be cause for disallowance. If the department does not allow use of the corporate guarantee, the owner or operator must provide alternative financial assurance that meets the requirements of this rule.
f. Local government guarantee. An owner or operator may demonstrate financial assurance for closure by obtaining a written guarantee provided by a local government or jointly provided by the members of an agency established pursuant to Iowa Code chapter 28E.
(1) The terms of the written guarantee must provide that within 30 days of the owner's or operator's failure to perform closure of a facility covered by the guarantee, the guarantor will:
1. Perform closure or pay a third party to perform closure as required (performance guarantee);
2. Establish a fully funded secured trust fund as specified in paragraph 105.14(5)"a" in the name of the owner or operator (payment guarantee); or
3. Establish an alternative financial assurance instrument in the name of the owner or operator as required by this rule.
(2) The guarantor must satisfy one of the following requirements:
1. If the guarantor has outstanding, rated, general obligation bonds that are not secured by insurance, a letter of credit, or other collateral or guarantee, the guarantor must have a current rating of Aaa, Aa, A, or Baa, as issued by Moody's, or AAA, AA, A, or BBB, as issued by Standard & Poor's, on all such general obligation bonds; or
2. The guarantor must satisfy each of the following financial ratios based on the guarantor's most recent audited annual financial statement: a ratio of cash plus marketable securities to total expenditures greater than or equal to 0.05, and a ratio of annual debt service to total expenditures less than or equal to 0.20.
(3) The guarantor must prepare its financial statements in conformity with generally accepted accounting principles or other comprehensive basis of accounting and have its financial statements audited by an independent certified public accountant or the office of the auditor of the state of Iowa. The financial statement shall be in the form prescribed by the office of the auditor of the state of Iowa.
(4) A guarantor is not eligible to assure its obligations if:
1. The guarantor is currently in default on any outstanding general obligation bonds; or
2. The guarantor has any outstanding general obligation bonds rated lower than Baa as issued by Moody's or BBB as issued by Standard & Poor's; or
3. The guarantor operated at a deficit equal to 5 percent or more of total annual revenue in each of the past two fiscal years; or
4. The guarantor receives an adverse opinion or disclaimer of opinion from the independent certified public accountant or office of the auditor of the state of Iowa auditing its financial statement. A qualified opinion that is related to the demonstration of financial assurance may, at the discretion of the department, be cause for disallowance of this mechanism; or
5. The closure costs to be assured are greater than 43 percent of the guarantor's total annual revenue.
(5) The local government guarantor must include disclosure of the closure costs assured through the guarantee in its next annual audit report prior to the initial receipt of waste at the facility or prior to cancellation of an alternative financial assurance instrument, whichever is later. For the first year the guarantee is used to assure costs at a particular facility, the reference may instead be placed in the guarantor's official files until issuance of the next available annual audit report if timing does not permit the reference to be incorporated into the most recently issued annual audit report or budget. For closure costs, conformance with Governmental Accounting Standards Board Statement 18 ensures compliance with this public notice component.
(6) The local government owner or operator must submit to the department the following items:
1. A copy of the written guarantee between the owner or operator and the local government serving as guarantor for the closure costs at the facility.
2. A copy of the guarantor's most recent annual financial audit report indicating compliance with the financial ratios required by numbered paragraph 105.14(5)"f"(2)"2," if applicable, and the requirements of subparagraphs 105.14(5)"f"(3) and (4).
3. A letter signed by the local government's chief financial officer that lists all the current cost estimates covered by the guarantor, as described in subrule 105.14(4); and that provides evidence and certifies that the local government meets the conditions of subparagraphs 105.14(5)"f"(2), (3), (4) and (5).
105.14(6) Financial assurance cancellation and permit suspension.

a. A financial assurance instrument may be terminated by the owner or operator only if the owner or operator substitutes alternate financial assurance prior to cancellation, as specified in this rule, or if the owner or operator is no longer required to demonstrate financial responsibility in accordance with this rule.
b. A financial assurance instrument shall be continuous in nature until canceled by the financial assurance provider or until the department gives written notification to the owner, operator, and financial assurance provider that the covered site has been properly closed. The financial assurance provider shall give at least 90 days' notice in writing to the owner or operator and the department in the event of any intent to cancel the instrument.
c. Within 60 days of receipt of a written notice of cancellation of financial assurance by the financial assurance provider, the owner or operator must provide the department an alternative financial assurance instrument. If a means of continued financial assurance is not provided within that 60 days, the department shall suspend the permit.
d. The owner or operator shall perform proper closure within 30 days of the permit suspension. For the purpose of this rule, "proper closure" means completion of all items pursuant to rule 105.13(455B,455D) and subrule 105.14(4).
e. If the owner or operator does not properly close the site within the 30-day period allowed, the department shall file a claim with the financial assurance instrument provider to collect the amount of funds necessary to properly close the site.
f. An owner or operator who elects to terminate a permitted activity, whose renewal application has been denied, or whose permit has been suspended or revoked for cause must submit within 30 days of the termination of the permit a schedule for completing proper closure of the terminated activity. Closure completion cannot exceed 60 days from the date of termination of the permit.
g. The director may also request payment from any financial assurance provider for the purpose of completing closure when the following circumstances exist:
(1) The owner or operator is more than 15 days late in providing a schedule for closure or for meeting any date in the schedule for closure.
(2) The owner or operator declares an economic inability to comply with this rule, either by sending written notification to the director or through an action such as, but not limited to, filing for bankruptcy.
567—105.15(455B,455D) Variances. A request for a variance must be submitted in writing to the department pursuant to 561—Chapter 10.
These rules are intended to implement Iowa Code sections 455B.304 and 455D.9.

Definitions

K.S.A. 65-3402 (c) “Solid waste processing facility” means incinerator, composting facility, household hazardous waste facility, waste-to-energy facility, transfer station, reclamation facility or any other location where solid wastes are consolidated, temporarily stored, salvaged or otherwise processed prior to being transported to a final disposal site. This term does not include a scrap material recycling and processing facility.

K.S.A. 65-3402(y) “Composting facility” means any facility that composts wastes and has a composting area larger than one-half acre.

K.A.R. 28-29-3(e) “Backyard composting” means a composting operation that does not distribute the finished compost for use off-site and that meets one of the following conditions:
(1) The materials are all compostable and are generated by no more than four single residences, or the equivalent of four single residences.
(2) The material being composted consists entirely of yard waste, and the volume of material being composted is less than 10 cubic yards.

K.A.R. 28-29-3(i) “Composting” means a controlled process of microbial degradation of organic material into a stable, nuisance-free, humus-like product. This term shall not include the following:
(1) Manure storage piles, whether turned to stabilize or not turned; and
(2) yard waste directly applied to agricultural land.

K.A.R. 28-29-3(j) “Composting area” means the area used for receiving, processing, curing, and storing compostable materials and compost.

K.A.R. 28-29-3(xx) “Putrescible wastes” means solid waste that contains organic matter capable of being decomposed by microorganisms and that is capable of attracting or providing food for birds and disease vectors.

K.A.R. 28-29-3(hhh) “Source-separated organic waste” means organic material that has been separated from noncompostable material at the point of generation and shall include the following wastes:
(1) Vegetative food waste;
(2) soiled or unrecyclable paper;
(3) sewage sludge;
(4) other wastes with similar properties, as determined by the department; and
(5) yard waste in combination with these materials.

K.A.R. 28-29-3(ppp) “Vegetative food waste” means food waste and food processing waste from materials including fruits, vegetables, and grains. Vegetative food waste shall not refer to animal products or by-products, including dairy products, animal fat, bones, and meat.

K.A.R. 28-29-3(ttt) “Yard waste” means vegetative waste generated from ordinary yard maintenance, including grass clippings, leaves, branches less than 0.5 inches in diameter, wood chips and ground wood less than 0.5 inches in diameter, and garden wastes.

28-29-25a. Small yard waste composting sites. This regulation shall apply to each yard waste composting site that has a composting area of one-half acre or less, but this regulation shall not apply to backyard composting. Hay, straw, and manure may be added to yard waste only for the purpose of adjusting the carbon-to-nitrogen ratio of the compost mix. The additives shall not exceed 10 percent by volume of the total mixture without the written approval of the department. Other materials may be added to the yard waste only with the written approval of the department.
(a) Site design. The owner or operator of each yard waste composting site shall design and construct the composting site to meet all of the following requirements.
(1) Composting surface and drainage.
(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.
(B) The operation shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.
(2) Site access.
(A) At each site that composts yard waste that is brought in from off-site, the following information shall be posted on one or more signs:
(i) Site name;
(ii) site hours;
(iii) a list of the materials appropriate for composting; and
(iv) the name and telephone number of an emergency contact person.
(B) Unauthorized dumping shall be discouraged by access control.
(b) Site operations. The owner or operator of each yard waste composting site shall perform the following:
(1) Minimize odors;
(2) control disease vectors, dust, litter, and noise; and
(3) remove all finished compost within 18 months of the completion of the composting process.
(c) Site closure. The owner or operator of each yard waste composting site shall perform the following:
(1) Notify the department, in writing, at least 60 days before closure; and
(2) remove all materials from the site within six months of the last receipt of compostable material.
(d) Registration. Each owner or operator of a small yard waste composting site shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)
28-29-25b. Yard waste composting facilities . This regulation shall apply to each facility that composts yard waste and has a composting area larger than one-half acre. Hay, straw, and manure may be added to yard waste only for the purpose of adjusting the carbon-to-nitrogen ratio of the compost mix. The additives shall not exceed 10 percent by volume of the total mixture without the written approval of the department. Other materials may be added to the yard waste only with the written approval of the department.
(a) Facility design. The owner or operator of each yard waste composting facility shall design and construct the facility to meet the following requirements.
(1) Composting surface and drainage.
(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.
(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.
(C) The composting area shall be graded to prevent ponding of liquids.

(D) The surface of the composting area shall be capable of supporting all equipment used.
(2) Facility access.
(A) At each facility that composts yard waste that is brought in from off-site, the following information shall be posted on one or more signs:
(i) Facility name;
(ii) permit number;
(iii) site hours;
(iv) traffic flow;
(v) a list of the materials appropriate for composting; and
(vi) the name and telephone number of an emergency contact person.
(B) Unauthorized dumping shall be discouraged by access control.
(C) Facility roads shall be constructed to allow access for managing the composting operation. Yard waste composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23 (e).
(3) Capacity and storage. The composting facility shall have the capacity to store the following materials:
(A) Incoming materials waiting to be processed;
(B) the materials being processed; and
(C) the finished compost, not to exceed 18 months' production.
(b) Facility operations. The owner or operator of each yard waste composting facility shall be exempt from K.A.R. 28-29-23 (j) and shall perform the following:
(1) Minimize odors;
(2) control disease vectors, dust, litter, and noise;
(3) segregate incoming waste from finished compost;
(4) inform the public of disposal sites for waste not acceptable for composting at the facility;
(5) begin processing incoming waste within one week of receipt; and
(6) remove all finished compost within 18 months of the completion of the composting process.
(c) Facility closure. The owner or operator of each yard waste composting facility shall perform the following:
(1) Notify the department, in writing, at least 60 days before closure; and
(2) remove all materials from the facility within six months of the last receipt of compostable material.
(d) Permit applications. The owner or operator of each yard waste composting facility shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application.
(1) Facility design plan. This design plan shall not be required to bear the seal and signature of a professional engineer. The facility design plan shall contain all of the following items:
(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;
(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;
(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and
(D) a detailed drawing of the facility that indicates the location of all of the following features:
(i) Roads;
(ii) the existing and final grades and contours;
(iii) storm water control;
(iv) buildings and equipment to be installed;
(v) utilities; and
(vi) access control.
(2) Operations plan. The operations plan shall contain the following information:
(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;
(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;
(C) the methods to control traffic and to expedite unloading;
(D) the methods for measuring incoming waste;

(E) the methods to control the types of waste received;
(F) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;
(G) the location of disposal sites for noncompostable wastes;
(H) the method of composting;
(I) a list of equipment to be used;
(J) a description of any additives used in the process;
(K) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;
(L) the proposed end-use of the compost;
(M) the methods to minimize, manage, and monitor odors;
(N) disease vector, dust, litter, and noise control measures;
(O) leachate and storm water control measures; and
(P) a fire protection and control plan.
(3) Closure plan. The closure plan shall not be required to bear the seal and signature of a professional engineer. This plan shall include the following information:
(A) The steps necessary to close the facility;
(B) the final surface contours; and
(C) a closure cost estimate based on the third-party cost for removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)
28-29-25c. Manure composting . For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts manure and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts manure and has a composting area larger than one-half acre. On-site storage of manure shall not be considered composting.
(a) Facility design. The owner or operator of each facility that composts manure shall design and construct the facility to meet the following requirements:
(1) Composting surface and drainage.
(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.
(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.
(C) Leachate control shall be provided wherever leachate is generated.
(D) The composting area shall be graded to prevent ponding of liquids.
(E) The surface of the composting area shall be capable of supporting all equipment used.
(2) Facility access.
(A) At each facility that composts manure that is brought in from off-site, the following information shall be posted on one or more signs:
(i) Facility name;
(ii) permit number;
(iii) site hours;
(iv) traffic flow;
(v) a list of the materials appropriate for composting; and
(vi) the name and telephone number of an emergency contact person.
(B) Unauthorized dumping shall be discouraged by access control. (C) Facility roads shall be constructed to allow access for managing the composting operation. Manure composting facilities shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23 (e).
(3) Capacity and storage. The facility shall have the capacity to store the following materials:
(A) Incoming materials waiting to be processed;
(B) the materials being processed; and
(C) the finished compost, not to exceed 18 months' production.
(4) Separation distances. For the purposes of this regulation, "animal unit," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.

(A) Each facility that composts livestock manure, other than swine manure, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:
(i) 1,320 feet for facilities composting manure from 300 to 999 animal units; and
(ii) 4,000 feet for facilities composting manure from 1,000 or more animal units.
(B) Each facility that composts swine manure shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:
(i) 1,320 feet for facilities composting manure from 300 to 999 animal units;
(ii) 4,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and
(iii) 5,000 feet for facilities composting manure from 3,725 or more animal units.
(C) Each facility that composts swine manure shall meet or exceed the following separation distances from any wildlife refuge:
(i) 10,000 feet for facilities composting manure from 1,000 to 3,724 animal units; and
(ii) 16,000 feet for facilities composting manure from 3,725 or more animal units.
(D) For each manure composting operation located at a confined feeding facility, the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.
(5) Exceptions to the separation distances.
(A) The separation distance requirements of paragraphs (a)(4)(A) and (B) of this regulation shall not apply if the owner or operator obtains written agreement from all owners of habitable structures that are within the separation distance, stating that the owners of the habitable structures are aware of the operation and have no objections to the operation. The written agreement shall be filed in the office of the register of deeds of the county in which the habitable structure is located.
(B) The separation distance requirements of paragraph (a)(4)(A) of this regulation may be reduced by the secretary if one of the following conditions applies:
(i) No substantial objection from owners of habitable structures within the separation distance is received in response to public notice.
(ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of the separation distances.
(C) The separation distance requirements of paragraphs (4)(B)(i) and (ii) of this regulation may be reduced by the secretary if one of the following conditions applies:
(i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.
(ii) The board of county commissioners of the county where the composting operation is located submits a written request seeking a reduction of separation distances.
(iii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.
(D) The separation distance requirements of paragraph (4)(B)(iii) of this regulation may be reduced by the secretary if one of the following conditions applies:
(i) No substantial objection is received in response to notice given by certified mail, return response requested, to owners of all habitable structures within the separation distance.
(ii) The secretary determines that technology exists that meets or exceeds the effect of the required separation distance and the composting operation will be using the technology.
(E) For each manure composting operation located at a confined feeding facility, exceptions to the separation distances as set forth in K.S.A. 65-171d and amendments thereto shall apply.
(b) Facility operations. The owner or operator of each facility that composts manure shall perform the following:
(1) Minimize odors;
(2) control disease vectors, dust, litter, and noise;
(3) segregate incoming waste from finished compost;
(4) limit public access to hours when an attendant or any operating personnel are at the facility;
(5) begin processing incoming waste by the end of the working day; and
(6) remove all finished compost within 18 months of the completion of the composting process.
(c) Facility closure. The owner or operator of each facility that composts manure shall perform the following:
(1) Notify the department, in writing, at least 60 days before closure; and
(2) remove all materials from the facility within six months of the last receipt of compostable material.

(d) Registration. Each owner or operator of a facility that composts manure and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.
(e) Permit applications. The owner or operator of each facility that composts manure and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:
(1) Facility design plan. The facility design plan shall contain all of the following items:
(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey indicating the facility boundary and the property boundary;
(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;
(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and
(D) a detailed drawing of the facility that indicates the location of the following features:
(i) Roads;
(ii) the existing and final grades and contours;
(iii) storm water control;
(iv) buildings and equipment to be installed;
(v) utilities;
(vi) access control; and
(vii) all other structures.
(2) Operations plan. The operations plan shall contain the following information:
(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;
(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;
(C) the sources of waste to be received;
(D) the methods to control traffic and to expedite unloading;
(E) the methods for measuring incoming waste;
(F) the methods to control the types of waste received;
(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;
(H) the location of disposal sites for noncompostable wastes;
(I) the method of composting;
(J) a list of equipment to be used;
(K) a description of additives used in the process;
(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;
(M) the proposed end use of product;
(N) the methods to minimize, manage, and monitor odors;
(O) disease vector, dust, litter, and noise control measures;
(P) leachate and national pollutant discharge elimination system storm water control measures;
(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;
(R) a contingency plan for events including equipment failure, power outages, natural disasters, receipt of prohibited materials, or other similar interruptions of normal activities; and
(S) a fire protection and control plan.
(3) Closure plan. The closure plan shall include the following information:
(A) The steps necessary to close the facility;
(B) the final surface contours; and
(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)

28-29-25d. Livestock composting . For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts livestock, including chickens and turkeys, and has a composting area larger than one-half acre.
(a) The owner or operator of each facility that composts livestock shall design and construct the facility to meet the following requirements.
(1) Composting surface and drainage.
(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.
(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.
(C) Leachate control shall be provided wherever leachate is generated.
(D) The composting area shall be graded to prevent ponding of liquids.
(E) The surface of the composting area shall be capable of supporting all equipment used.
(F) The facility shall be constructed with either a floor or a roof that meets one of the following requirements:
(i) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10-7 cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater; or
(ii) The receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.
(2) Facility access.
(A) At each facility that composts livestock that is brought in from off-site, the following information shall be posted on one or more signs:
(i) Facility name;
(ii) permit number;
(iii) site hours;
(iv) traffic flow;
(v) a list of the materials appropriate for composting; and
(vi) the name and telephone number of an emergency contact person.
(B) Unauthorized dumping shall be discouraged by access control. (C) Facility roads shall be constructed to allow adequate access for managing the composting operation. Each facility that composts livestock shall be exempt from the all-weather access road requirement prescribed in K.A.R. 28-29-23 (e).
(3) Capacity and storage. The facility shall have the capacity to store the following materials:
(A) Incoming materials waiting to be processed;
(B) the materials being processed; and
(C) the finished compost, not to exceed 18 months' production.
(4) Separation distances. For the purposes of this regulation, "animal unit," "animal unit capacity," "habitable structure," and "wildlife refuge" have the same meaning as set forth in K.S.A. 65-171d, and amendments thereto.
(A) Each facility that composts livestock from one or more confined feeding facilities, other than confined feeding facilities for swine, shall meet or exceed the following separation distances from any habitable structure in existence when the facility begins operations:
(i) 1,320 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999; and
(ii) 4,000 feet for facilities composting livestock from one or more confined feeding facilities with a combined animal unit capacity of 1,000 or more.
(B) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any habitable structure or city, county, state, or federal park in existence when the facility begins operations:
(i) 1,320 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 300 to 999;
(ii) 4,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 to 3,724; and
(iii) 5,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 3,725 or more.

(C) Each facility that composts livestock from one or more confined feeding facilities for swine shall meet or exceed the following separation distances from any wildlife refuge:
(i) 10,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 1,000 to 3,724; and
(ii) 16,000 feet for facilities composting swine from one or more confined feeding facilities with a combined animal unit capacity of 3,725 or more.
(D) Exceptions to the separation distances set forth in K.S.A. 65-171d, and amendments thereto, shall apply.
(b) Facility operations. The owner or operator of each facility that composts livestock shall perform the following:
(1) Minimize odors;
(2) control disease vectors, dust, litter, and noise;
(3) ensure that dead animals are not visible from municipal roads or habitable structures;
(4) protect the facility from scavenging by animals;
(5) segregate incoming waste from finished compost;
(6) begin processing incoming waste by the end of the working day;
(7) limit public access to hours when an attendant or any operating personnel are at the facility; and
(8) remove all finished compost within 18 months of the completion of the composting process.
(c) Facility closure. The owner or operator of each facility that composts livestock shall perform the following:
(1) Notify the department, in writing, at least 60 days before closure;
(2) remove all material from the facility within 10 days of ceasing operation; and
(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with dead animals or solid waste.
(d) Registration. Each owner or operator of a facility that composts livestock and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department.
(e) Permit applications. The owner or operator of each facility that composts livestock and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department, unless the composting operation is located at a confined feeding facility that has a valid permit issued by the department. The applicant shall include the following items with the permit application:
(1) Facility design plan. The facility design plan shall contain the following items:
(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;
(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;
(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;
(D) plan and profile views of the facility indicating the following features:
(i) Roads;
(ii) the existing and final grades and contours;
(iii) storm water control;
(iv) buildings and equipment to be installed;
(v) utilities;
(vi) access control; and
(vii) all other structures; and
(E) information on the permeability of the floor structure.
(2) Operations plan. The operations plan shall contain the following information:
(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;
(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;
(C) the sources of waste to be received;
(D) the methods to control traffic and to expedite unloading;
(E) the methods for measuring incoming waste;
(F) the methods to control the types of waste received;
(G) the methods for removing non-compostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;

(H) the location of disposal sites for non-compostable wastes;
(I) the method of composting;
(J) a list of equipment to be used;
(K) a description of any additives used in the process;
(L) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;
(M) the proposed end-use of compost;
(N) the methods to minimize, manage, and monitor odors;
(O) disease vector, dust, litter, and noise control measures;
(P) leachate and national pollutant discharge elimination system storm water control measures;
(Q) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;
(R) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and
(S) a fire protection and control plan.
(3) Closure plan. The closure plan shall include the following information:
(A) The steps necessary to close the facility;
(B) the final surface contours; and
(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1997 Supp. 65-3406 and L. 1998, ch. 143, sec. 37; effective January 8, 1999.)
28-29-25e. Source-separated organic waste composting . For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts source-separated organic waste and has a composting area of one-half acre or less. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts source-separated organic waste and has a composting area larger than one-half acre.
(a) Facility design. The owner or operator of each facility that composts source-separated organic waste shall design and construct the facility to meet the following requirements:
(1) Composting surface and drainage.
(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.
(B) The facility shall not cause a discharge of pollutants into waters of the state in accordance with K.S.A. 65-164, and amendments thereto.
(C) Leachate control shall be provided wherever leachate is generated.
(D) The composting area shall be graded to prevent ponding of liquids.
(E) The surface of the composting area shall be capable of supporting the equipment used.
(2) Facility access.
(A) At each facility that composts source-separated organic waste that is brought in from off-site, the following information shall be posted on one or more signs:
(i) Facility name;
(ii) permit number;
(iii) site hours;
(iv) traffic flow;
(v) a list of the materials appropriate for composting; and
(vi) the name and telephone number of an emergency contact person.
(B) Unauthorized dumping shall be discouraged by access control.
(C) Access roads shall be of all-weather construction and shall be negotiable at all times. Load limits on bridges and access roads shall be sufficient to support all traffic loads generated by the use of the facility.
(3) Capacity and storage. The facility shall have the capacity to store the following materials:
(A) Incoming materials waiting to be processed;
(B) the materials being processed; and
(C) the finished compost, not to exceed 18 months' production.
(b) Facility operations. The owner or operator of each facility that composts source-separated organic waste shall perform the following:
(1) Minimize odors;

(2) control disease vectors, dust, litter, and noise;
(3) protect the facility from scavenging by animals;
(4) segregate incoming waste from finished compost;
(5) inform the public of disposal sites for waste not acceptable for composting at the facility;
(6) limit public access to hours when an attendant or any operating personnel are at the facility;
(7) begin processing incoming waste within 24 hours of receipt;
(8) if sewage sludge is composted, comply with 40 CFR Part 503, as in effect on February 19, 1993; and
(9) remove all finished compost within 18 months of the completion of the composting process.
(c) Facility closure. The owner or operator of each facility that composts source-separated organic waste shall perform the following:
(1) Notify the department, in writing, at least 60 days before closure;
(2) remove all material from the facility within 10 days of ceasing operation; and
(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with source-separated organic waste or solid waste.
(d) Registration. Each owner or operator of a facility that composts source-separated organic waste and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department.
(e) Permit applications. The owner or operator of each facility that composts source-separated organic waste and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department. The applicant shall include the following items with the permit application:
(1) Facility design plan. The facility design plan shall contain the following items:
(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;
(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;
(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency; and
(D) plan and profile views of the facility indicating the following features:
(i) Roads;
(ii) the existing and final grades and contours;
(iii) storm water control;
(iv) buildings and equipment to be installed;
(v) utilities;
(vi) access control; and
(vii) all other structures.
(2) Operations plan. The operations plan shall contain the following information:
(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;
(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;
(C) the sources of waste to be received;
(D) the methods to control traffic and to expedite unloading;
(E) the methods for measuring incoming waste;
(F) the methods to control the types of waste received;
(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;
(H) the location of disposal site for noncompostable wastes;
(I) the method of composting;
(J) a description of equipment proposed to be used in composting, including equipment specifications and manufacturer’s performance standards. The proposed equipment shall be compatible with the proposed process and throughput;
(K) a description of any additives used in the process;
(L) the methods for managing biological conditions;
(M) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;

(N) the proposed end use of compost;
(O) the methods to minimize, manage, and monitor odors;
(P) disease vector, dust, litter, and noise control measures;
(Q) leachate and national pollutant discharge elimination system storm water control measures;
(R) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;
(S) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and
(T) a fire protection and control plan.
(3) Closure plan. The closure plan shall include the following information:
(A) The steps necessary to close the facility;
(B) the final surface contours; and
(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)
28-29-25f. Solid waste composting . For the purposes of this regulation, subsections (a), (b), (c), and (d) shall apply to each facility that composts solid waste and has a composting area of one-half acre or less, except facilities that compost only yard waste, manure, dead animals, source-separated organic waste, or any combination of yard waste, manure, dead animals, and source-separated organic waste. Subsections (a), (b), (c), and (e) of this regulation shall apply to each facility that composts solid waste and has a composting area larger than one-half acre, except facilities that compost only yard waste, manure, dead animals, source-separated organic waste, or any combination of yard waste, manure, dead animals, and source-separated organic waste.
(a) Facility design. The owner or operator of each solid waste composting facility shall design and construct the facility to meet the following requirements:
(1) Composting surface and drainage.
(A) Storm water run-on shall be prevented from entering the receiving, processing, curing, or storage areas by the use of berms or other physical barriers.
(B) The facility shall not cause a discharge of pollutants into waters of the state, in accordance with K.S.A. 65-164, and amendments thereto.
(C) Leachate control shall be provided wherever leachate is generated.
(D) The composting area shall be graded to prevent ponding of liquids.
(E) The surface of the composting area shall be capable of supporting the equipment used.
(F) The floor shall be composed of a layer of material that is at least one foot thick and has a hydraulic conductivity no greater than 10-7 cm/sec, or the facility shall be designed to provide the same level of protection to the groundwater.
(G) The receiving, processing, and curing areas shall be covered by a roof, or the facility shall be designed to provide the same level of protection from the weather.
(2) Facility access.
(A) At each facility that composts solid waste that is brought in from off-site, the following information shall be posted on one or more signs:
(i) Facility name;
(ii) permit number;
(iii) site hours;
(iv) traffic flow;
(v) a list of the materials appropriate for composting; and
(vi) the name and telephone number of an emergency contact person.
(B) Unauthorized dumping shall be discouraged by access control.
(C) Access roads shall be of all-weather construction and shall be negotiable at all times. Load limits on bridges and access roads shall be sufficient to support all traffic loads generated by the use of the facility.
(3) Capacity and storage. The facility shall have the capacity to store the following materials:
(A) Incoming materials waiting to be processed;
(B) the materials being processed; and
(C) the finished compost, not to exceed 18 months’ production.
(b) Facility operations. The owner or operator of each solid waste composting facility shall perform the following:

(1) Minimize odors;
(2) control disease vectors, dust, litter, and noise;
(3) protect the facility from scavenging by animals;
(4) segregate incoming waste from finished compost;
(5) inform the public of disposal sites for waste not acceptable for composting at the facility;
(6) limit public access to hours when an attendant or any operating personnel are at the facility.
(7) begin processing incoming waste within 24 hours of receipt;
(8) use one of the following processes to further reduce pathogens (PFRP):
(A) Windrow composting method. When using this method, the following conditions shall be met:
(i) Aerobic conditions shall be maintained within the windrow;
(ii) the waste shall attain a temperature of 55o C, 131o F, or greater for at least 15 days during the composting period; and
(iii) the windrow shall be turned a minimum of five times during the high temperature period;
(B) Aerated static pile composting method. When using this method, the waste shall be covered with six to 12 inches of insulating material and maintained at a temperature of 55o C, 131o F, or greater for a minimum of three consecutive days;
(C) Enclosed-vessel composting method. When using this method, the waste shall be maintained at a temperature of 55o C, 131o F, or greater for a minimum of three consecutive days; or
(D) any other method approved by the department;
(9) record the following information:
(A) The temperature and moisture content of materials during the composting process, in accordance with the operating plan;
(B) the daily volume or weight of waste received;
(C) the source of waste;
(D) all laboratory analyses required by the permit; and
(E) the volume of recovered materials; and
(10) remove all finished compost within 18 months of the completion of the composting process.
(c) Facility closure. The owner or operator of each facility that composts solid waste shall perform the following:
(1) Notify the department, in writing, at least 60 days before closure;
(2) remove all material from the facility within 10 days of ceasing operation; and
(3) clean all containers, equipment, machines, floors, and site surfaces that have been in contact with solid waste.
(d) Registration. Each owner or operator of a facility that composts solid waste and has a composting area of one-half acre or less shall submit registration information to the department on a form provided by the department.
(e) Permit applications. The owner or operator of each facility that composts solid waste and has a composting area larger than one-half acre shall submit a permit application to the department on a form provided by the department. The applicant shall include the following items with the permit application:
(1) Facility design plan. The facility design plan shall contain the following items:
(A) A 7.5 minute topographic map of the area, as typically available from the U.S. geological survey, indicating the facility boundary and the property boundary;
(B) a soil map of the area, as typically available from the U.S. department of agriculture natural resources conservation services;
(C) a 100-year floodplain map of the area, as typically available from the federal emergency management agency;
(D) plan and profile views of the facility indicating the following features:
(i) Roads;
(ii) the existing and final grades and contours;
(iii) storm water control;
(iv) buildings and equipment to be installed;
(v) utilities;
(vi) access control; and
(vii) all other structures;
(E) information on the permeability of the floor structure; and
(F) a flow diagram of the proposed processing steps involved in recovering recyclable materials and mixed organic material from solid waste, including a total mass balance.
(2) Operations plan. The operations plan shall contain the following information:

(A) Job descriptions of persons responsible for operation, control, and maintenance of the facility;
(B) the anticipated annual quantity of waste to be received, and the seasonal variations of the quantity of waste to be received;
(C) the sources of waste to be received;
(D) the methods to control traffic and to expedite unloading;
(E) the methods for measuring incoming waste;
(F) the methods to control the types of waste received;
(G) the methods for removing noncompostable wastes from the incoming waste stream, including procedures for storage and disposal of these wastes;
(H) the location of disposal sites for noncompostable wastes;
(I) the method of composting;
(J) a description of equipment proposed to be used in composting, including equipment specifications and manufacturer's performance standards. The proposed equipment shall be compatible with the proposed process and throughput;
(K) a description of any additives used in the process;
(L) the methods for managing biological conditions;
(M) a quality assurance and quality control plan that outlines the monitoring, sampling, and analysis plans for testing the compost process and product;
(N) the proposed end use of compost;
(O) the methods to minimize, manage, and monitor odors;
(P) disease vector, dust, litter, and noise control measures;
(Q) leachate and national pollutant discharge elimination system storm water control measures;
(R) the plans for operations during wind, heavy rain, snow, freezing temperatures, or other inclement weather conditions;
(S) a contingency plan for events including equipment failure, power outages, natural disasters, fire, receipt of prohibited materials, or similar interruptions of normal activities; and
(T) a fire protection and control plan.
(3) Closure plan. The closure plan shall include the following information:
(A) The steps necessary to close the facility;
(B) the final surface contours; and
(C) a closure cost estimate based on the third-party cost of removing and disposing of the maximum amount of wastes that may be contained at the facility. (Authorized by and implementing K.S.A. 1998 Supp. 65-3406; effective October 1, 1999.)
28-29-26. Revoked. (Authorized by and implementing K.S.A. 1983 Supp. 65-3406; effective May 1, 1982; amended, T-84-41, Dec. 21, 1983; amended May 1, 1984; revoked June 4, 1999.)

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401 KAR 48:200. Landfarming and composting.

RELATES TO: KRS 224.01, 224.10, 224.40, 224.43, 224.70, 224.99
STATUTORY AUTHORITY: KRS 224.10-100
NECESSITY, FUNCTION, AND CONFORMITY: KRS 224.10-100 and the waste management provisions of KRS Chapter 224 require the Natural Resources and Environmental Protection Cabinet to adopt administrative regulations for the disposal of solid waste. This chapter establishes standards for solid waste sites or facilities. This administrative regulation sets forth the permit application requirements and general design and operating requirements for landfarming facilities, composting, and sludge giveaway programs.

Section 1. Applicability. (1) The requirements in this administrative regulation apply to any person disposing of solid waste by landfarming and composting.

(2) The cabinet shall not permit the land application of a solid waste that may present a threat to human health and the environment. The land application suitability of solid wastes shall be evaluated by the cabinet on a case-by-case basis. The applicant shall submit a request for a determination of waste classification with the submittal of a notice of intent to apply. The cabinet may base a decision as to the land application suitability of a particular waste upon the ability of the waste to biodegrade in the environment, the potential for the waste to be managed in a manner consistent with 401 KAR 47:030, the likelihood that waste constituents shall contaminate surface water or groundwater, the potential for nuisances from odors or unsightly conditions, and the potential for the waste to harm human health or the environment.

(a) Municipal water treatment sludges, municipal wastewater treatment sludges, or food service industry wastes shall be classified according to the maximum dry weight concentration of heavy metals based on the average concentration of metals in a minimum of two (2) consecutive samples taken no closer than thirty (30) days apart. The cabinet may deny the landfarming of a solid waste based upon health considerations in addition to the presence in the waste of excessive concentration of the five (5) heavy metals listed below. The sludges shall be placed in classes based on the concentration of the following heavy metals:

1. Cadmium;
2. Copper;
3. Lead;
4. Nickel; and
5. Zinc.

(b) Sludges or solid wastes other than municipal water treatment sludges, municipal wastewater treatment sludges, or food services industry solid wastes shall be classified using additional parameters based upon the source, chemical and physical characteristics of the waste and their potential for adverse impact on human health or the environment.

(3) The concentration for heavy metals in each class of sludge or solid waste shall be those indicated in Table 1 of this subsection. A single metal parameter shall be sufficient to require a solid waste to be classified as Class II or III.

Table 1. Heavy Metal Concentrations	
Parameters for Class I Concentration	
Cadmium	Less than or equal to 10 mg/kg
Copper	Less than or equal to 450 mg/kg
Lead	Less than or equal to 250 mg/kg
Nickel	Less than or equal to 50 mg/kg
Zinc	Less than or equal to 900 mg/kg
Parameters for Class II Concentration	
Cadmium	Greater than 10 mg/kg and less than or equal to 30 mg/kg
Copper	Greater than 450 mg/kg and less than or equal to 900 mg/kg
Lead	Greater than 250 mg/kg and less than or equal to 500 mg/kg
Nickel	Greater than 50 mg/kg and less than or equal to 100 mg/kg
Zinc	Greater than 900 mg/kg and less than or equal to 1800 mg/kg
Parameters for Class III Concentration	
Cadmium	Greater than 30 mg/kg
Copper	Greater than 900 mg/kg
Lead	Greater than 500 mg/kg
Nickel	Greater than 100 mg/kg
Zinc	Greater than 1800 mg/kg

(4) Sludge or solid waste classifications shall be reevaluated based upon the annual analyses submitted in the annual landfarming review.

(5) A registered permit-by-rule may be issued based upon the information submitted in the registration on a form prescribed by the cabinet in Section 18 of this administrative regulation for landfarming of solid waste classified as Class I wastes, composted solid waste sludge, or sludge giveaway programs.

(6) A landfarming permit may be issued based upon the information submitted in the application for solid wastes classified as Class II or III.

(7) Solid waste heavy metal concentration values are determined on a dry weight basis. Analysis shall be accomplished by determining the heavy metal concentration of the undried sample and determining the heavy metal content using the solids content of the original sample and computing the heavy metals content of the sludge on a dry weight basis. Results of the laboratory determination shall include the solids content, the wet weight and dry weight content when they are submitted to the cabinet.

Section 2. Notice of Intent to Apply. All applicants for a landfarming permit or a registered permit-by-rule shall submit a notice of intent to apply for a landfarming permit that shall contain the following information:

(1) Names, addresses, and telephone numbers of the landowner, applicant and waste producer. If the applicant is a government agency, corporation, company or partnership, include the name, address and telephone number of the process agent or contact individual;

(2) Sludge analyses in accordance with Section 1(2)(a) of this administrative regulation to receive a classification rating;

(3) An original, current 7.5 minute United States Geological Survey quadrangle topographic map with the proposed landfarming site boundary clearly marked;

(4) A soil conservation service soils map with the proposed landfarming site boundary clearly marked;

(5) A survey of all groundwater wells and springs within a one-fourth (1/4) mile radius of the proposed landfarming site boundary;

(6) A description of the water or wastewater treatment processes including design capacity, current hydraulic operating conditions, and the sludge treatment systems. A schematic diagram showing the treatment plant processes shall be included. All chemicals used in the treatment process shall be listed by type and amount used;

(7) For publicly owned treatment works with pretreatment programs, a list of facilities which discharge waters to the treatment system and the quantities and characteristics of the wastes that are discharged to the facility;

(8) Any other additional information required by the cabinet.

Section 3. Contents of Permit Applications. Any person desiring a landfarming facility permit shall submit a complete application to the cabinet. The applications shall be on a form and presented in a manner prescribed by the cabinet, and shall include, but not be limited to the following:

(1) Names, addresses and telephone numbers of the landowner, applicant, waste producer and person who completed the application form. If the applicant is a government agency, corporation, company or partnership, include the name, address and telephone number of process agent or other contact individual;

(2) A written description of the location of the proposed landfarming site and the address of the property on which the proposed landfarming site is located;

(3) A copy of the deed to the property and a copy of the proposed landfarming lease agreement if the landowner is not the applicant;

(4) A geological report of the site, including:

(a) A physical description of soils in the uppermost five (5) feet identifying the soil texture, erodibility, available moisture capacity, and permeability;

(b) A current soil analysis to determine the soil pH and cation exchange capacity (CEC) value;

(c) A delineation of soil by series on a U.S. Soil Conservation Service soils map, or on a map prepared by the soil conservation officer or a soil scientist; and

(d) A description of the surface and subsurface geology including depth to bedrock, depth to seasonal high groundwater table, karst formations, and names and descriptions of geologic formations.

(5) A description of the solid wastes to be disposed, including the inventory of industrial users and pollutants required in Section 9(7) of 401 KAR 5:055, including:

(a) The type, waste producer and total estimated quantity of solid waste per year to be disposed;

(b) A description of stabilization methods utilized to reduce pathogens in accordance with Section 11 of this administrative regulation; and

(c) A physical and chemical analysis including: percent total solids; volatile solids; total potassium; total phosphorus; total nitrogen; ammonium nitrogen (NH_4-N); nitrate nitrogen (NO_3-N); pH; and the amount of cadmium, copper, nickel, zinc, lead, chromium, and polychlorinated biphenyls (PCBs).

(6) An original current United States Geological Survey topographic map within the land application unit clearly marked;

(7) An enlargement of a current United States Geological Survey topographic map. The enlarged map shall have a minimum scale of one (1) inch equals 400 feet and the contour interval as published. This map shall contain the following:

(a) The property lines and the boundaries of the proposed site;

(b) Proposed land application unit and subplots, numbered sequentially, with the land application unit;

(c) Access and proposed or existing roads;

(d) Streams, areas of standing water such as lakes, ponds or marshes, and sinkholes on the site and within 1000 feet of the proposed site boundary;

(e) All existing manmade features within 1000 feet of the proposed site boundary including structures, public roads, utilities and water wells;

(f) The boundaries of the 100 year flood plain if applicable;

(g) The delineation of existing site surface water drainage, and existing and proposed run-off/run-on structures;

(h) Steepest slope of each subplot (numerical value) on the proposed landfarming site;

(i) Boundaries of any and all buffer zones with the distance marked; and

(j) Map legend showing all symbols used, total site acreage, and quadrangle name.

(8) The complete application narrative shall include:

(a) A description of the application method(s), equipment, and transportation method from the point of waste production to the proposed site;

(b) Waste storage provisions to be utilized during adverse weather conditions or equipment breakdowns;

(c) Annual application rates per acre based on waste quality as specified in Section 9 of this administrative regulation;

(d) The cropping program for each subplot and the schedule of waste application for each subplot for a period of two (2) years from the date of permit issuance;

(e) A farm management plan for the area to be landfarmed;

(f) A description of the proposed site including any previous waste applications;

(g) Written recommendations of the county agricultural extension agent for crop nitrogen requirements, and any additional fertilizer and soil amendment needed;

(h) A description of how land application units and subplot boundaries shall be marked to ensure that the units and subplots can be identified during the life of the permit;

(i) A description of where the landfarming records shall be maintained and the person who is responsible for their upkeep;

(j) The name, address, phone number, and certification number of the state certified landfarming operator of the proposed landfarming site;

(k) Additional information necessary for the cabinet to make a determination that the proposed activity shall not adversely affect human health or the environment; and

(l) A statement from the owner or operator that the landfarming of solid waste in the county where the landfarm facilities are located is consistent with the requirements of the solid waste management plans pursuant to KRS Chapters 109 and 224. When landfarming is not determined to be consistent with local requirements, the inconsistencies shall be identified.

Section 4. Requirements for Registered Permits-by-rule. Registered permits-by-rule shall complete the registration, prescribed on a form approved by the cabinet, containing the information in Section 18 of this administrative regulation. Owners and operators shall not be required to submit an application as specified in Sections 2, 3, 5 and 6 of this administrative regulation.

Section 5. Additional Requirements for Class II Sludge Permit Applications. In addition to the requirements for an application in Section 3 of this administrative regulation, applicants for landfarming permits for Class II sludge shall submit in the application the following:

(1) A list of all surface water bodies within a one-half (1/2) mile radius of the proposed land application unit boundary;

(2) The usage of each surface water body listed in accordance with subsection (1) of this section;

(3) A list of all groundwater wells, springs and sinkholes within a one-half (1/2) mile radius of the proposed land application unit boundary;

(4) The name of the owner of the property on which the surface water body, well, spring, or sinkhole is located; and

(5)(a) The applicant shall prepare a groundwater quality assurance plan. The plan shall include but not be limited to:

1. A description of the surface and subsurface geology of the site; and

2. A description of the hydrologic characteristics of the site.

(b) Upon examination of geological aspects and other relevant factors by the cabinet, the applicant may be required to prepare a groundwater monitoring plan to include location and specifications of wells, monitoring parameters and monitoring schedules in accordance with 401 KAR 48:300.

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Section 6. Additional Requirements for Class III Sludge Permit Applications. In addition to the requirements for an application in Section 3 of this administrative regulation, applicants for landfarming permits for Class III sludge shall submit in the application the following:

(1) A list of all surface water bodies within a one-half (1/2) mile radius of the proposed land application unit boundary;

(2) The usage of each surface water body listed in accordance with subsection (1) of this section;

(3) A list of all groundwater wells, springs and sinkholes within a one-half (1/2) mile radius of the proposed land application unit boundary;

(4) The name of the owner of the property on which the surface water body, well, spring, or sinkhole is located; and

(5)(a) The applicant shall prepare a groundwater quality assurance plan. The plan shall include but not be limited to:

1. A description of the hydrologic characteristics of the site; and

2. A description of the surface and subsurface geology of the site.

(b) The applicant shall submit a groundwater monitoring plan to include location and specifications of wells, monitoring parameters, and monitoring schedules in accordance with 401 KAR 48:300.

Section 7. Siting Considerations. (1) Solid waste shall not be applied in the 100 year flood plain unless the waste is injected or incorporated.

(2) The land application unit shall have a minimum of four (4) feet of soil between the soil surface and both the seasonal high water table and bedrock.

(3) Solid waste application shall not be located on soils with a permeability rate greater than six (6) inches per hour or less than two-tenths (0.2) inches per hour.

(4) Land application units shall not be located on land with a slope greater than fifteen (15) percent.

Section 8. Operating Requirements. (1) The owner or operator shall cause, suffer, or allow all of the requirements, specifications and standards of this section to be met.

(a) Prior to applying sludges to the land, all sludges shall be processed to significantly reduce pathogens. Approved processes to reduce pathogens are aerobic digestion, air drying, anaerobic digestion, composting or lime stabilization as specified in Section 11 of this administrative regulation.

(b) Other methods or operating conditions may be acceptable as processes to significantly reduce pathogens. Such processes shall be deemed equivalent based upon the reduction of pathogens and volatile solids.

(2) A certified landfarming operator shall be available to the landfarming site during sludge application. All sludge applications are to be accomplished under the direction of a certified landfarming operator.

(3) When surface application is used in conjunction with soil incorporation methods, incorporation shall occur within forty-eight (48) hours of sludge application.

(4) Surface application without incorporation into the soil shall not be used on land without established vegetative cover or crop residue of at least seventy-five (75) percent.

(5) No hazardous wastes or mixtures of hazardous and solid waste shall be disposed, discharged to or placed in a landfarming site.

(6) No toxic wastes or mixtures of toxic and nontoxic wastes regulated under the Toxic Substances Control Act shall be disposed, discharged to or placed in a landfarming site.

(7) The following agricultural use restrictions apply:

(a) Land spreading shall not occur on land where leafy vegetables or root crops for human consumption shall be harvested within twelve (12) months;

(b) Land spreading shall not occur on land where crops for direct human consumption, other than leafy vegetables or root crops, are harvested within two (2) months;

(c) Dairy grazing shall be prohibited for six (6) months after land spreading, other livestock grazing shall be prohibited for three (3) months;

(d) When the annual application rate of cadmium exceeds 0.44 pound per acre, food chain crops shall not be utilized in the following cropping season; and

(e) Solid waste shall not be land spread where tobacco is harvested within five (5) years of waste application if the annual application rate of cadmium from the sludge exceeds 0.44 pound per acre at any time during the life of the site.

(8) The general public shall be restricted from the application zone for a period of twelve (12) months after each application.

(9) Solid waste shall not be land spread on frozen, snow-covered, ice-covered, or water-saturated soil, or during any precipitation event.

(10) No solid waste shall be applied in excess of schedules and rates of waste application approved by the cabinet.

(11) No raw or unstabilized solid waste shall be landfarmed. No person shall cause, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

(12) The amount of any single surface application shall not be greater than an average one-half (1/2) inch in thickness.

(13) High pressure spray irrigation of sludge which produces aerosols shall be prohibited.

(14) Subplots determined in Section 3(8)(h) of this administrative regulation shall be staked or otherwise clearly marked in the field.

(15) Buffer zone distances shall be maintained in accordance with Table 2 of this subsection.

Table 2
Required Buffer Zones
Minimum Distance in Feet from the Boundary
of the Application Zone

Structure or Object	Surface Injection	All Other Means of Application
Residences & occupied buildings	250	500
Drinking water well	250	500
Surface water body	250	500
Intermittent stream	250	500
Karst feature	250	500
Public road	30	50
Intermittent stream	30	50
Ephemeral stream	30	50
Property line	30	50

(16) Surface water or solid waste ponding within the application zone shall be prohibited.

(17) Surface run-off/run-on shall be controlled to minimize the possibility of applied solid waste contaminating nearby surface water or adjacent land areas.

(18) The permit or registered permit-by-rule holder shall maintain records of all landfarming activities on forms provided by the cabinet throughout the operation of the site. The records shall at a minimum contain the schedules and rates of waste application and all laboratory analyses. Records shall be made available to the cabinet upon request.

(19) An annual report of landfarming activities shall be submitted to the cabinet sixty (60) days prior to the anniversary date of the permit or registered

permit-by-rule issuance. The report shall be submitted on forms provided by the cabinet.

(20) Operational monitoring shall be performed on the following schedule:

(a) Soil shall be sampled annually in accordance with the soil monitoring plan in the approved permit application; and

(b) Solid waste from municipal wastewater treatment, municipal water treatment facilities and food service industry wastes shall be sampled in accordance with Table 3 of this paragraph or more frequently if required by the cabinet. Other solid waste shall be sampled in accordance with a schedule approved by the cabinet. Solid waste shall be analyzed for solids content, pH, ammonium nitrogen (NH_4-N), nitrate nitrogen (NO_3-N), total nitrogen, total phosphorus, total potassium, PCBs, chromium, copper, zinc, nickel, lead, and cadmium. Laboratory analysis results shall be reported in milligrams per kilogram wet and dry weight.

Table 3
Required Sampling Schedule

Design Treatment Capacity (gallons per day)	Samples Per Year
Less than 100,000	1
100,001 - 1,000,000	2
1,000,001 - 10,000,000	4
More than 10,000,000	12

(21) Soil pH shall be six and five-tenths (6.5) or greater during crop production, hay production or grazing.

(22) Solid waste containing concentrations of polychlorinated biphenyls greater than one (1) milligram per kilogram shall not be landfarmed.

(23) The maximum amount of metals from solid wastes that may be applied during the life of the site shall be based upon the cation exchange capacity of the soil and shall be those in Table 4 of this subsection.

Table 4
Maximum Amount of Metals

	Cation Exchange Capacity (meg/100g)		
Parameter	0.5	5-15	15+
Lead	500 lbs/ac.	1000 lbs/ac.	2000 lbs/ac.
Cadmium	4.46 lbs/ac.	8.02 lbs/ac.	17.84 lbs/ac.
Copper	125 lbs/ac.	250 lbs/ac.	500 lbs/ac.
Nickel	50 lbs/ac.	100 lbs/ac.	200 lbs/ac.
Zinc	250 lbs/ac.	500 lbs/ac.	1000 lbs/ac.

The following equation shall be used to determine the maximum number of tons of solid waste per acre that may be land spread without exceeding the above limitations:

$$\text{Tons waste/acre} = \frac{\text{(lbs per acre for each parameter from Table 4)}}{\text{(dry mg/kg of metal in waste sample)} \times 0.002}$$

(24) The amount of nitrogen land spread shall not exceed the nitrogen utilization rate of the vegetative cover in the application zone.

(25) If the laboratory analyses and calculations to determine quantities of metals applied to the soil discloses that the cumulative concentration of a contaminant is above the maximum level permitted under subsection (23) of this section, a written notice shall be given to the cabinet within ten (10) days of receipt of the monitoring results. The permittee shall cease further landfarming and submit to the cabinet within forty-five (45) days a report describing proposed corrective actions to be taken by the permittee. A notice shall be recorded on the property deed within forty-five (45) days of receipt of the monitoring results stating that the property has received solid waste at concentrations exceeding permitted levels, and that food chain crops shall not be grown due to possible health hazards.

(26) In addition to the operating requirements in this section, an owner or operator who is landfarming Class I sludges shall limit the annual application rate to a maximum of fifteen (15) dry tons of sludge per acre per year.

(27)(a) In addition to the operating requirements in this section, the owner or operator who is landfarming Class II sludge shall sample surface water quarterly. Parameters to be monitored shall include pH, ammonium nitrogen (NH_4-N), fecal coliform bacteria, chromium, biological oxygen demand, total organic carbon, and total dissolved solids. A minimum of one (1) upgradient and one (1) downgradient sampling point is required.

(b) Groundwater monitoring, if required, shall be conducted in accordance with 401 KAR 48:300.

(28)(a) In addition to the operating requirements in this section, the owner or operator who is landfarming Class III sludge shall sample surface water quarterly. Parameters to be monitored shall include pH, ammonium nitrogen (NH_4-N), fecal coliform bacteria, chromium, biological oxygen demand, total organic carbon, and total dissolved solids. A minimum of one (1) upgradient and one (1) downgradient sampling point is required.

(b) Groundwater monitoring shall be conducted in accordance with 401 KAR 48:300.

Section 9. Application Rates. (1) The annual application rate shall be the lesser of the application rates as determined for cadmium and for nitrogen utilization.

(2) Determine the percent of available organic nitrogen in the waste using the following calculation:

$$\text{Percent available organic N} = \text{(percent total N)} - \text{(percent } NH_4\text{-N)} - \text{(percent } NO_3\text{-N)}$$

(3) Determine the amount of nitrogen that shall be available for plant uptake at the landfarming site using one (1) of the following calculations depending on the application method:

(a) Incorporation:

$$\text{Lbs available N/ton} = (\text{percent } NH_4\text{-N} \times 20) + (\text{percent } NO_3\text{-N} \times 20) + (\text{percent available organic N} \times 4)$$

(b) Surface application:

$$\text{Lbs available N/ton} = (\text{percent } NH_4\text{-N} \times 10) + (\text{percent } NO_3\text{-N} \times 20) + (\text{percent available organic N} \times 4).$$

$$\text{Tons/acre} = \frac{\text{Nitrogen utilization rate of vegetative cover}}{\text{Lbs available organic N/ton}}$$

(4) The annual application rate of cadmium from solid waste shall not exceed 0.44 pounds per acre. The annual application rate shall be determined using

the following calculation:

$$\text{Tons/acre} = \frac{\text{pounds of allowable cadmium per acre}}{(\text{mg per kg of cadmium in sample}) \times 0.002}$$

Section 10. Closure. An owner or operator of a permitted landfarming site shall submit to the cabinet a closure report to include:

(1) The results of final soil samples taken in accordance with the operational permit between twelve (12) and thirteen (13) months following the last application of solid waste;

(2) The results of final surface water samples taken in accordance with the operational permit between twelve (12) and thirteen (13) months following the last application of solid waste for all Class II and Class III permit holders;

(3) A historical summary of all landfarming by subplot showing the allowable and actual rates of solid waste application, heavy metals and nitrogen;

(4) When heavy metal applications exceed the amounts listed in Table 4 in Section 8(23) of this administrative regulation, the owner shall immediately commence closure of the facility and submit a copy of the notice in the deed that shall advise all future landowners in perpetuity that heavy metal concentrations exceed those allowed by this administrative regulation; and

(5) The results of final groundwater samples in accordance with the operational permit taken between twelve (12) and thirteen (13) months following the last application of solid waste by all Class III and those Class II permits required to monitor groundwater.

Section 11. Processes to Significantly Reduce Pathogens. (1) Aerobic digestion. The process shall be conducted by agitating sludge with air or oxygen to maintain aerobic conditions at residence times ranging from sixty (60) days at fifteen (15) degrees celsius to forty (40) days at twenty (20) degrees celsius, with a volatile solids reduction of at least thirty-eight (38) percent.

(2) Air drying. Liquid sludge shall be allowed to drain or dry on underdrained sand beds, or paved or unpaved basins in which the sludge shall be at a depth of nine (9) inches. Air drying shall be conducted for a minimum of three (3) months, with two (2) months of temperatures which average on a daily basis above zero degrees celsius.

(3) Anaerobic digestion. The process shall be conducted in the absence of air at residence times ranging from sixty (60) days at twenty (20) degrees celsius to fifteen (15) days at thirty-five (35) degrees celsius to fifty-five (55) degrees celsius, with a volatile solids reduction of at least thirty-eight (38) percent.

(4) Composting. Using the within-vessel, static aerated pile or windrow composting methods, the solid waste shall be maintained at minimum operating conditions of forty (40) degrees celsius for five (5) days. For four (4) hours during this period, the temperature shall exceed fifty-five (55) degrees celsius.

(5) Lime stabilization. Sufficient lime shall be added to produce a pH of twelve (12) for two (2) hours of contact time.

(6) Other methods. Other methods or operating conditions may be acceptable if pathogens and vector attraction of the waste (volatile solids) are reduced to an extent equivalent to the reduction achieved by any of the above methods.

Section 12. Permit Modification. (1) Landfarming permits shall be issued to the operator and may include application zones which are not located contiguously.

(2) Class II and Class III sludge landfarming permit holders may add sites through permit modification procedures with the following conditions:

(a) The permit holder shall submit the appropriate information in accordance with Section 3 of this administrative regulation; and

(b) A public notice shall be published and no permit modification granted until a minimum of thirty (30) days has passed from the date publication of the notice and the condition of Section 2 of 401 KAR 47:140 and 401 KAR 47:130 have been met.

Section 13. Distribution of Sludge. (1) A municipal water or wastewater treatment sludge producer may give away Class I or Class II sludge to individuals for subsequent use as a soil conditioner. This program shall be operated under a registered permit-by-rule in accordance with 401 KAR 47:110. The maximum amount of sludge that may be distributed annually to any individual is limited to 2000 pounds (dry weight).

(2) Producers of Class I or Class II municipal water or wastewater sludge shall submit the following application requirements for the sludge giveaway program:

(a) A sludge analysis as required in Section 1 of this administrative regulation that demonstrates the sludge is Class I or II;

(b) A description of the distribution system;

(c) A recordkeeping system to include the name and address of individuals receiving sludge and the total quantity of sludge received; and

(d) A description of the process to significantly reduce pathogens.

(3) During operation of the giveaway program the producer shall:

(a) Maintain a list of names and addresses of all individuals receiving the sludge;

(b) Submit annually to the cabinet the sludge analysis performed in accordance with the schedule contained in Table 3 in Section 8(20) of this administrative regulation;

(c) Provide to individuals receiving waste, copies of the sludge analyses and a brochure, to be published by the cabinet, explaining the proper procedures to be utilized in the landfarming of sludge; and

(d) Use a process to significantly reduce pathogens in accordance with Section 11 of this administrative regulation.

Section 14. Sludge Composting. Sludge shall be composted under a registered permit-by-rule in accordance with 401 KAR 47:110.

(1) Producers of Class I or Class II municipal wastewater sludge shall register on a form prescribed by the cabinet containing the following information:

(a) A sludge analysis as required in Section 1 of this administrative regulation that demonstrates the sludge is a Class I or II;

(b) A description of the system and the manufacturer's performance data for mechanical composting systems;

(c) A site layout, including an enlarged topographic map with a scale of one (1) inch equals 400 feet along with calculations for area requirements;

(d) A sludge analysis for the following parameters (by dry weight): percent total solids; volatile solids; total potassium; total phosphorus; total nitrogen; ammonium nitrogen (NH_4-N); nitrate nitrogen (NO_3-N); pH; and total cadmium, copper, nickel, zinc, lead, chromium, and polychlorinated biphenyls (PCBs);

(e) A process design that shall describe:

1. Use of bulking agents, moisture control, or feed amendments;
2. Temperature ranges and residence times;
3. Storage of compost during curing after the primary composting operation;
4. Provision for additional drying and screening;

(f) A marketing and distribution plan;

(g) Specifications for the final product;

(h) A description of closure procedures for the composting site; and

(i) A narrative detailing the methods that the owner or operator shall use to comply with the environmental performance standards in 401 KAR 47:030.

(2) Any person who composts wastewater treatment or water treatment sludge shall:

(a) Use only Class I or Class II sludges for composting;

(b) Use a composting process to further reduce pathogens in accordance with subsection (3) of this section;

(c) Keep a record of all recipients who receive more than twenty (20) cubic yards in any given month;

(d) After the composted sludge has completed the curing process, distribute or dispose within one (1) year at least seventy-five (75) percent of the compost; and

(e) Dispose of any materials that do not meet standards for distribution within one (1) month of such a determination in an approved facility.

Section 15. Solid Waste Composting. Solid wastes shall be composted under a registered permit-by-rule as allowed by 401 KAR 47:110.

(1) This section shall apply to any and all persons who compost solid waste other than wastewater treatment sludge for distribution.

(2) Owners and operators of registered permit-by-rule solid waste composting facilities shall register on a form prescribed by the cabinet containing the following information:

(a) A complete description of the solid waste to be composted;

(b) A description of the system and the manufacturer's performance data for mechanical composting systems;

(c) Site layout, including a map;

(d) A process description which shall include the appropriate items as follows:

1. Use of bulking agents, moisture control or feed amendments;

2. Temperature ranges and residence times;

3. Storage of compost during curing after the primary composting operation; and

4. Provision for additional drying and screening.

(e) A marketing and distribution plan;

(f) Specifications for the final product;

(g) A plan for the closure of the composting site; and

(h) A narrative of the methods that the owner or operator shall use to comply with the environmental performance standards in 401 KAR 47:030.

(3) Any person who composts solid waste other than wastewater treatment or water treatment sludge shall:

(a) Keep a log of recipients who receive more than twenty (20) cubic yards in any given month;

(b) Maintain a record of the amount of solid waste that is composted and the date it is initiated and completed; and

(c) After the composted solid waste has completed the curing process, distribute or dispose within one (1) year at least seventy-five (75) percent of the compost.

Section 16. Compliance Schedule. This section applies to all persons who were issued a landfarming permit prior to the effective date of this administrative regulation and continue operation of their landfarming facility. Such persons shall do the following:

(1) Comply with the environmental performance standards of 401 KAR 47:030;

(2) Implement the operational requirements of Section 8 of this administrative regulation and continue with the monitoring requirements as prescribed in the landfarming permit;

(3) Submit the annual landfarming review for the landfarming permit sixty (60) days prior to the anniversary date of the permit issuance;

(4) Upon receipt and review of the annual landfarming review, the cabinet shall assign a classification rating to the solid waste and notify the permit holder of any additional information needed to amend the landfarming permit such that it complies with the terms of 401 KAR 48:200.

(5) Any person who qualifies for a registered permit-by-rule for landfarming shall notify the cabinet of his intent to continue operation of the facility by submitting a registration by October 1, 1990. Failure to submit the registration form shall result in the appropriate enforcement actions pursuant to KRS Chapter 224.

(6) Persons who were issued a permit prior to the effective date of this administrative regulation, except those qualifying for a registered permit-by-rule, and fail to file the required information or respond to correspondence pertaining to their permit within the dates established in the correspondence, shall no longer hold a permit for landfarming. Prohibited by KRS 224.40-100, such sites shall be considered to be open dumps, should any additional solid waste be disposed without securing a valid permit.

Section 17. Public Information Process. Once the cabinet has made a preliminary determination to issue or deny a landfarming permit application, the permit applicant shall issue a public notice for approvals. The cabinet shall issue the public notice for denials. This notice shall be distributed by the cabinet as specified in 401 KAR 47:140. The contents of the public notice shall include those items listed in 401 KAR 47:140. The cabinet shall make available a thirty (30) day comment period commencing with the date the notice is published. This section does not apply to registered permits-by-rule.

Section 18. Registration. Persons who landfarm Class I sludge shall file a registration for a registered landfarming permit-by-rule that shall contain the following information:

(1) Names, addresses, and telephone numbers of the landowners, registrant and waste producer. If the applicant is a government agency, corporation, company or partnership, include the name, address and telephone number of the process agent or contact individual;

(2) Solid waste analyses in accordance with Section 1(2)(a) and (b) and Section 3(5)(c) of this administrative regulation to receive a classification rating;

(3) An original, current seven and five-tenths (7.5) minute United States Geological Survey quadrangle topographic map with the proposed landfarming site boundary clearly marked;

(4) A list of all known groundwater wells and springs within a one-fourth (1/4) mile radius of the proposed landfarming site boundary;

(5) A description of the water or wastewater treatment processes including design capacity, current hydraulic operating conditions, and the sludge treatment systems. A schematic diagram showing the treatment plant processes shall be included. All chemicals used in the treatment process shall be listed by type and amount used;

(6) Other additional information required by the cabinet; and

(7) Owners or operators shall submit revisions to the registration form for subsections (1) and (6) of this section, when necessary. (16 Ky.R. 1789; Am. 2221; 2383; eff. 5-8-90.)

~~3. Annual reports concerning the integrity of the cap shall be submitted to the Office of Environmental Services for a period of three years after closure.~~

~~AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.~~

~~HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 20:1001 (September 1994), amended by the Office of the Secretary, LR 24:2252 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2527 (November 2000), repromulgated LR 27:705 (May 2001), amended by the Office of Environmental Assessment, LR 30:2025 (September 2004), LR 31:1577 (July 2005), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2495 (October 2005), LR 33:1067 (June 2007), LR 33:2149 (October 2007), LR 34:1901 (September 2008).~~

§723. Standards Governing Composting Facilities

A. Plans and Specifications

1. Facility plans, specifications, and operations represented and described in the permit application or permit modifications for all facilities shall be prepared under the supervision of and certified by a professional engineer, licensed in the state of Louisiana.

2. Levee Construction

a. Levees or other protective measures shall be provided in order to protect the facility against a 100-year flood.

b. The perimeter levees of all facilities shall be engineered to minimize wind and water erosion and shall have a grass cover or other protective cover to preserve structural integrity.

3. Leachate Management

a. Leachate produced in the composting process shall be collected and treated or disposed of at a permitted facility.

b. Leachate may also be reused in the composting process as a source of moisture.

B. Surface Hydrology. The topography of the facility shall provide for drainage to prevent standing water and shall allow for drainage away from the facility.

C. Facility Administrative Procedures

1. Reports

a. The permit holder shall submit annual reports to the Office of Management and Finance indicating quantities and types of solid waste (expressed in both dry- and wet-weight tons per year), received from in-state generators and from out-of-state generators, during the reporting period. All calculations used to determine the amounts of solid waste received for processing during the annual-reporting period shall be submitted to the Office of Management and Finance. A form to be used for this purpose shall be obtained from the Office of Management and Finance or through the department's website.

b. The reporting period for the processor annual report shall be from July l through June 30, commencing July 1, 1992, and terminating upon closure of the facility in accordance with the permit.

c. Annual reports shall be submitted to the Office of Management and Finance by August l of each reporting year.

d. The annual report is to be provided for each individual permitted facility on a separate annual reporting form.

e. The annual reports for composting facilities shall identify the quantity (expressed in both dry- and wet-weight tons per year) and types of solid waste distributed for reuse and/or recycling and the ultimate use of the product or the quantity (expressed in both dry- and wet-weight tons per year) of solid waste disposed of. The report shall also identify the permitted facility used for the disposal of the waste.

2. Recordkeeping

a. The permit holder shall maintain at the facility all records specified in the application as necessary for the effective management of the facility and for preparing the required reports. These records shall be maintained for the life of the facility and shall be kept on file for at least three years after closure.

b. The permit holder shall maintain records of transporters transporting waste for processing at the facility. The records shall include the date of receipt of shipments of waste and the transporter's solid waste identification number issued by the administrative authority.

c. Records kept on site for all facilities shall include, but not be limited to:

i. copies of the applicable Louisiana solid waste rules and regulations;

ii. the permit;

iii. the permit application; and

iv. permit modifications.

3. Personnel

a. All facilities shall have the personnel necessary to achieve the operational requirements of the facility.

b. Type III facilities receiving solid waste for composting shall have the number and levels of certified operators employed at the facility as required by the department in accordance with LAC 46:XXIII. Operator certificates shall be prominently displayed at the facility. The Board of Certification and Training for Solid Waste Disposal System Operators and the Office of Environmental Services shall be notified within 30 days of any changes in the employment status of certified operators.

D. Facility Operations

1. Facility Limitations

a. The receipt of hazardous waste shall be strictly prohibited and prevented. Any other wastes that present special handling problems may be excluded by the administrative authority.

b. The following types of wastes may be processed:

i. *yard trash* and *woodwaste*, as defined in LAC 33:VII.115;

ii. *manure*, as defined in LAC 33:VII.115;

iii. *residential* or *commercial solid waste*, as defined in LAC 33:VII.115;

iv. other materials deemed acceptable by the administrative authority.

c. The processing of infectious waste and asbestos waste shall be strictly prohibited and prevented.

d. No solid waste shall be deposited in standing water.

2. Facility Operational Plans. Operational plans shall be provided that describe in specific detail how the waste will be managed during all phases of processing operations. At a minimum, the plan shall address:

a. the route the waste will follow after receipt;

b. the sequence in which the waste will be processed within a unit;

c. the method and operational changes that will be used during wet weather (Particular attention shall be given to maintenance of access roads and to water management.); and

d. the recordkeeping procedures to be employed to ensure that all pertinent activities are properly documented.

3. Facility Operational Standards

a. The operation of composting facilities shall be by methods that result in the aerobic, biochemical decomposition of the organic material received.

b. The facility shall be designed and operated to control vectors, odors, dust, and litter.

c. The construction and turning frequency (if turning is necessary) of a composting facility shall be sufficient to maintain aerobic conditions and to produce a compost product in a time frame that is consistent with the level of technology employed and acceptable to the administrative authority.

d. In-vessel composting shall be conducted in accordance with the manufacturer's specifications and these regulations.

e. The following special requirements apply to facilities handling residential or commercial waste.

i. If the compost is to be used exclusively for application to non-food-chain cropland, the criteria for a process to significantly reduce pathogens (LAC 33:VII.3007.Appendix D.1) shall be met. Otherwise, the facility shall meet the criteria for the processes to further reduce pathogens and for vector attraction reduction (LAC 33:VII.3007.Appendix D.2 and 3009.Appendix E).

ii. The facility shall include the following components:

(a). a receiving area, mixing area, curing area, compost storage area, drying and screening areas, and truck wash area located on surfaces capable of preventing groundwater contamination and resistant to rutting caused by vehicular traffic (Periodic inspections of the surface shall be made to ensure that the underlying soils and the surrounding land surface are not being contaminated.);

(b). a runoff collection system;

(c). a leachate collection system; and

(d). on-site/off-site treatment systems.

f. The following parameters are to be monitored and recorded during the operation in the time frame specified below (The samples taken for the parameters listed below shall be representative of the compost unit.):

i. temperature, daily;

ii. process odors, daily;

iii. blower operation, daily; and

iv. other parameters as deemed appropriate by the administrative authority.

g. Compost shall be classified based on the type of waste processed, compost maturity, particle size, and organic matter. The following characteristics shall be used.

i. Compost Maturity

(a). *Fresh Organic Matter*—raw material before undergoing decomposition (or at beginning of process).

(b). *Fresh Compost*—organic matter that has been through the thermophilic stage and has undergone partial decomposition.

(c). *Semimature Compost*—compost material that is at the mesophilic stage.

(d). *Mature Compost*—a highly stabilized product that results from exposing compost to a prolonged period of humidification and mineralization, beyond the stage of maturity. *Mature compost* shall have been cured for at least 60 days after the mesophilic stage is complete. Minimum starting moisture content for curing semimature compost shall be above 45 percent (by weight) and shall be raised to this value if necessary.

(e). A plot of time versus temperature (to indicate that the temperature of the compost has stabilized over a period of time) or other acceptable methods may be used to determine the level of maturity of compost as defined in Subclauses D.3.g.i.(b)-(d) of this Section.

ii. Particle Size. Particle size shall be determined by using the screen size, listed in Subclauses D.3.g.ii.(a)-(c) of this Section, that the compost passed through. Organic

matter content shall be determined by measuring the volatile solids content using the Environmental Protection Agency's (EPA's) approved methods.

(a). *Fine*: < 12 mm and organic matter > 25 percent.

(b). *Medium*: < 15 mm and organic matter > 30 percent.

(c). *Coarse*: < 30 mm and organic matter > 35 percent.

iii. Moisture Content. In the finished compost, the moisture content shall not exceed 55 percent (by weight). The moisture content shall be determined by using EPA's approved methods.

iv. Concentration Levels. The concentration level of finished compost shall be as shown in the following table.

Metal Concentration Levels of Finished Compost (shown in mg/kg in dry weight)		
Parameter	**Category I**	**Category II**
Arsenic	<41	41-75
Cadmium	<39	39-85
Copper	<1500	1500-4300
Lead	<300	300-840
Mercury	<17	17-57
Nickel	<420	420
Selenium	<100	100
Zinc	<2800	2800-7500

h. Finished Compost

i. The finished compost shall be sufficiently stable that it can be stored or applied to land without causing a health hazard or a detriment or nuisance to the environment as determined by the administrative authority.

ii. All distributed compost shall be accompanied with a label or leaflet that indicates, at a minimum, the type of waste from which the compost was derived, any restriction on the use of the product, and recommended application rates.

iii. Compost derived from residential or commercial waste shall meet the criteria of the processes to further reduce pathogens (LAC 33:VII.3007.Appendix D.2) or the process to significantly reduce pathogens (LAC 33:VII.3007.Appendix D.1) as provided in Clause D.3.e.i of this Section. Such compost shall not be offered for sale to or otherwise distributed to the general public unless it meets the criteria of the processes to further reduce pathogens and for vector attraction reduction (LAC 33:VII.3007.Appendix D.2 and 3009.Appendix E).

iv. Any compost made from solid waste that cannot be used pursuant to these regulations shall be reprocessed or disposed of in an approved solid waste facility.

v. Waste received at a composting facility shall be used as compost, sold as compost, or disposed of at a permitted disposal facility within 36 months after receipt.

vi. The sampling and testing methods shall be EPA's approved methods.

vii. Compost produced outside of the state of Louisiana and used or sold for use within the state shall comply with the requirements of these regulations.

viii. Classes of Finished Compost

(a). *Class M1*—compost that is made only from manure or manure with yard trash and/or woodwaste, which is mature or semimature, is fine or medium, and meets the metals concentrations of Category 1 of Clause D.3.g.iv of this Section. This compost shall have unrestricted distribution except as provided in Clause D.3.e.i of this Section.

(b). *Class M2*—compost that is made only from manure or manure with yard trash and/or woodwaste, which is mature or semimature, is fine or medium, and meets the metals concentrations of Category 2 (but not of Category 1) of Clause D.3.g.iv of this Section. This compost shall be restricted to use with non-food-chain crops.

(c). *Class S1*—compost that is made from solid waste other than only manure or manure with yard trash and/or woodwaste, which is mature, is fine, and meets the metals concentrations in Category 1 of Clause D.3.g.iv of this Section. This compost shall have unrestricted distribution except as provided in Clause D.3.e.i of this Section.

(d). *Class S2*—compost that is made from solid waste other than only manure or manure with yard trash and/or woodwaste, which is mature or semimature, is fine or medium, and meets the metals concentrations in Category 1 or Category 2 of Clause D.3.g.iv of this Section, but does not meet the requirements of Class S1 compost. This compost shall be restricted to use with non-food-chain crops and shall not be used in areas where public contact is likely, such as parks or recreation areas.

(e). *Class YW*—compost that is made only from yard trash and/or woodwaste, which is mature or semimature, and is fine or medium. This compost shall have unrestricted distribution except as provided in Clause D.3.e.i of this Section.

(f). All classes of compost shall be used in accordance with the maximum allowable metal loading limits and annual allowable metal loading limits provided in the following tables and are subject to the restrictions provided in Clause D.3.e.i of this Section. The following metal loading limits shall apply provided specific plant nitrogen uptake and other limitations are met.

Maximum Allowable Metal Loading Limits (lbs/acre)	
Arsenic	37
Cadmium	35
Copper	1300
Lead	270
Mercury	15
Nickel	370
Selenium	89
Zinc	2500

Annual Allowable Metal Loading Limits (lbs/acre)	
Arsenic	1.85
Cadmium	1.75
Copper	65
Lead	135
Mercury	0.75
Nickel	18.5
Selenium	4.45
Zinc	125

ix. Testing of Finished Compost. Composite samples of batches produced at compost facilities shall be analyzed, in accordance with SW-846, at intervals of every three months (see *liquid waste*, as defined in LAC 33:VII.115) for the following parameters:

(a). moisture;

(b). total nitrogen;

(c). total phosphorus;

(d). total potassium;

(e). pH;

(f). cadmium;

(g). copper;

(h). lead;

(i). nickel;

(j). zinc;

(k). arsenic;

(l). mercury;

(m). selenium; and

(n). appropriate parameters for pathogens and vector attraction reduction analysis.

4. Sufficient equipment shall be provided and maintained at all facilities to meet the facilities' operational needs.

5. Segregation of Waste

a. Composting facilities involving residential and commercial solid waste shall provide a waste-segregation plan and a recyclables separation program that shall be instituted prior to composting operations.

b. Wastes not intended for composting shall be removed from the facility to a permitted facility at least every seven days. Storage of wastes not intended for composting shall be in a closed container that prevents vector and odor problems. The facility shall maintain a log of dates and volumes of waste removed from the facility due to its inability to be composted.

c. Recyclable waste removed from the waste stream shall be stored in a manner that prevents vector and odor problems and shall be removed from the facility at least every 90 days. The facility shall maintain a log of dates and volumes of recycled waste removed from the facility.

6. Facility Operations, Emergency Procedures, and Contingency Plans

a. A plan outlining facility operations and emergency procedures to be followed in case of accident, fire, explosion, or other emergencies shall be developed and filed with the Office of Environmental Services and with the local fire department and the closest hospital or clinic. The plans shall be updated and submitted annually or when implementation demonstrates that a revision is needed.

b. Training sessions concerning the procedures outlined in Subparagraph D.6.a of this Section shall be conducted annually for all employees working at the facility. A copy of the training program shall be filed with the Office of Environmental Services.

c. Applicants for Type III facilities shall submit certifications from local public service entities.

i. Certifications shall be submitted from the local:

(a). fire department and emergency medical services agency regarding their compliance with 29 CFR 1910.120; and

(b). hospital as to whether it is able to accept and treat patients who are contaminated with hazardous materials.

ii. In the event any such local public service entity cannot certify that it is able to meet the requirements of Clause D.6.c.i of this Section, the applicant for a Type III facility shall identify in the permit application the closest fire department, emergency medical services agency, and hospital that can provide the services listed in Clause D.6.c.i of this Section.

d. Facility operators for a Type III facility shall be trained in awareness and hazardous waste operations in accordance with 29 CFR 1910.120.

E. Facility Closure Requirements

1. Notification of Intent to Close a Facility. All permit holders shall notify the Office of Environmental Services in writing at least 90 days before closure or intent to close, seal, or abandon any individual units within a facility and shall provide the following information:

a. the date of the planned closure;

b. changes, if any, requested in the approved closure plan; and

c. the closure schedule and estimated cost.

2. Closure Requirements

a. Insect and rodent inspection shall be performed and documented before closure, and extermination measures shall be provided if required as a result of the final inspection.

b. All remaining waste shall be removed to a permitted facility for disposal.

c. The permit holder shall verify that the underlying soils have not been contaminated in the operation of the facility. If contamination exists, a remediation/removal program developed to meet the standards of LAC 33:VII.713.E.4 and 6 shall be provided to the Office of Environmental Services. The Office of Environmental Services shall conduct a closure inspection to verify that the facility was closed in accordance with the approved closure plan.

3. Upon determination by the administrative authority that a facility has completed closure in accordance with an approved plan, the administrative authority shall release the closure fund to the permit holder. The permit holder shall submit a request for the release of this fund to the Office of Management and Finance.

4. Financial assurance shall be adequate to cover removal of the maximum inventory at any given time, including (if part of closure) the cost of dismantling and removal of materials and buildings, etc.

AUTHORITY NOTE: Promulgated in accordance with R.S. 30:2001 et seq.

HISTORICAL NOTE: Promulgated by the Department of Environmental Quality, Office of Solid and Hazardous Waste, Solid Waste Division, LR 19:187 (February 1993), amended LR 20:1001 (September 1994), amended by the Office of the Secretary, LR 24:2252 (December 1998), amended by the Office of Environmental Assessment, Environmental Planning Division, LR 26:2528 (November 2000), repromulgated LR 27:705 (May 2001), amended by the Office of Environmental Assessment, LR 30:2025 (September 2004), amended by the Office of the Secretary, Legal Affairs Division, LR 31:2496 (October 2005), LR 33:1069 (June 2007), LR 33:2150 (October 2007).

§725. Standards Governing Separation and Woodwaste Processing Facilities (Type III)

A. Plans and Specifications

1. Facility plans, specifications, and operations represented and described in the permit application or permit modifications for all facilities shall be prepared under the supervision of and certified by a professional engineer, licensed in the state of Louisiana.

2. Levee Construction

a. The perimeter levees of all facilities shall be engineered to minimize wind and water erosion and shall have a grass cover or other protective cover to preserve structural integrity.

b. Levees or other protective measures shall be provided in order to protect the facility against a 100-year flood.

B. Facility Administrative Procedures

1. Reports

a. The permit holder shall submit annual reports to the Office of Management and Finance indicating quantities and types of solid waste (expressed in both dry- and wet-weight tons per year), received from in-state generators and from out-of-state generators, during the reporting period. All calculations used to determine the amounts of solid waste received for processing during the annual-reporting period shall be submitted to the Office of Management and Finance. A form to be used for this purpose shall be obtained from the Office of Management and Finance or through the department's website.

b. The reporting period for the processor annual report shall be from July l through June 30, commencing July 1, 1992, and terminating upon closure of the facility in accordance with the permit.

c. Annual reports shall be submitted to the Office of Management and Finance by August l of each reporting year.

d. The annual report is to be provided for each individual permitted facility on a separate annual reporting form.

e. The annual report for separation facilities shall identify the quantity (expressed in both dry- and wet-weight tons per year) and types of solid waste transported for disposal. The report shall also identify the permitted facility used for disposal of the waste.

f. The annual reports for separation facilities shall identify the quantity (expressed in both dry- and wet-weight tons per year) and types of solid waste distributed for reuse and/or recycling and the ultimate use of the product.

g. The annual report for portable air curtain destructors shall identify the site and quantity of solid waste processed at each individual site.

2. Recordkeeping

a. The permit holder shall maintain at the facility all records specified in the application as necessary for the effective management of the facility and for preparing the required reports. These records shall be maintained for the life of the facility and shall be kept on file for at least three years after closure.

b. The permit holder shall maintain records of transporters transporting waste for processing at the facility. The records shall include the date of receipt of shipments of waste and the transporter's solid waste identification number issued by the Office of Environmental Services.

c. Records kept on site for all facilities shall include, but not be limited to:

i. copies of the applicable Louisiana solid waste rules and regulations;

ii. the permit;

iii. the permit application; and

iv. permit modifications.

3. Personnel. All facilities shall have the personnel necessary to achieve the operational requirements of the facility.

Chapter 410: COMPOSTING FACILITIES

SUMMARY: This Chapter establishes the rules of the Department for the siting, design, operation and closure of solid waste composting facilities.

1. Applicability. This Chapter applies to solid waste composting facilities including certain Agricultural Composting Operations. A solid waste composting facility license under the *Maine Solid Waste Management Rules: General Provisions*, 06-096 CMR 400 (last amended January 23, 2001) and this Chapter is required to locate, establish, construct or operate any new composting facility or to alter an existing composting facility, unless that facility is exempt from licensing under these rules. Agricultural Composting Operations which are not exempt from licensing under the provisions of section 1(B) of this Chapter are subject to the requirements of sections 2 through 4 or section 6 of this Chapter.

A. Facilities Subject to the Requirements of this Chapter. A composting facility is any land area, structure, equipment, machine, device, system, or combination thereof that is operated to biologically decompose organic residuals under predominantly aerobic conditions and controlled temperatures between 110° and 160° F.

B. Facilities Not Subject to the Requirements of this Chapter. In addition to the facilities listed in the 06-096 CMR 400(2), the following facilities conducting only the specified activities listed are exempt from the requirements of this Chapter:

NOTE: See 06-096 CMR 400(1) for a full definition of residual types. Type IA residuals are leaf, vegetative and other residuals with a C:N ratio of greater than 25:1. Type IB residuals are food and other residuals with a C:N ratio of between 25:1 to 15:1. Type IC residuals are fish and other residuals with a C:N ratio of less than 15:1. C:N refers to the ratio of available carbon to nitrogen of the raw residual prior to composting. See Appendix B of this Chapter for a list of typical C:N ratios for various residuals. The lower the initial C:N the higher the potential for generation of nuisance odors and leachate generation. Type II residuals are sewage sludge, septage, and other residuals that may contain human pathogens. Type III residuals are petroleum contaminated soils and other residuals that may contain hazardous substances above risk based standards in 06-096 CMR 418, Appendix A.

(1) Facilities that, in any thirty (30) consecutive day period, receive for composting less than:

(a) Ten (10) cubic yards of Type IA residuals;

(b) Five (5) cubic yards of Type IB residuals; or

(c) Five (5) cubic yards of Type IC residuals;

(2) Facilities that compost domestic animal and poultry carcasses from routine events pursuant to the Maine Department of Agriculture, Food and Rural Resources *Rules and Regulations Relating to Disease Control of Domestic Animals and Poultry*, 01-001 CMR 211 (last amended October 12, 1996);

(3) Facilities that compost 10,000 cubic yards or less of animal manure per year;

NOTE: The facilities listed in section 1(B)(1) through (3) above should comply with the Department of Agriculture, Food and Rural Resources' Best Management Practices.

(4) Agricultural Composting Operations that, in any thirty (30) consecutive day period, compost a total of between five (5) and thirty (30) cubic yards of Type IB and IC residuals, and have a Compost Management Plan approved by the Maine Department of Agriculture, Food and Rural Resources;

(5) Agricultural Composting Operations that compost any volume of Type IA, Type IB or Type IC waste provided that at least 70% of the finished compost product is used at appropriate agronomic rates on the farm that produced the compost within two (2) years after it is produced, and provided that the facility is operated in accordance with a Compost Management Plan approved by the Maine Department of Agriculture, Food and Rural Resources;

(6) Agricultural Composting Operations that use leaves as an amendment to compost manure provided that the facility is operated in accordance a Compost Management Plan approved by the Maine Department of Agriculture, Food and Rural Resources;

(7) Agricultural Composting Operations that compost offal provided that the facility is operated in accordance with a Compost Management Plan approved by the Maine Department of Agriculture, Food and Rural Resources;

(8) The composting of solid waste during a Department-supervised remediation, emergency response, or research project; and

(9) Composting toilets as defined the in *Maine Subsurface Wastewater Disposal Rules*, 10-144 CMR 241(1004)(0).

C. Transition and relationship to other solid waste rules.

(1) Existing licensed composting facilities:

(a) Licenses held by existing composting facilities that are now exempt from these rules in accordance with section 1(B) of this Chapter will lapse on the date of approval of the facility's Compost Management Plan by the Department of Agriculture, Food and Rural Resources.

(b) Composting facilities previously licensed pursuant to the *Maine Solid Waste Management Rules: Processing Facilities*, 06-096 CMR 409 (last amended June 16, 2006) remain in effect, subject to the conditions specified in 06-096 CMR 400(3)(E).

(2) Relationship to 06-096 CMR 409: This rule replaces those provisions of 06-096 CMR 409 that previously addressed composting facilities.

(3) Beneficial Use of Solid Waste: The beneficial use, other than agronomic utilization, of a secondary material produced by a composting facility is subject to the *Maine Solid Waste Management Rules: Beneficial Use of Solid Wastes*, 06-096 CMR 418 (last amended June 16, 2006).

(4) Agronomic utilization of residuals: The agronomic utilization of a residual produced by a composting facility is subject to the *Maine Solid Waste Management Rules: Agronomic Utilization of Residuals*, 06-096 CMR 419 (last amended December 19, 1999).

(5) Storage: Residuals produced at composting facilities and stored at other locations in Maine prior to agronomic utilization must meet the applicable standards of 06-096 CMR 419.

(6) Analysis: Characterization of waste and secondary materials required by this Chapter must be done in accordance with the applicable provisions of the *Maine Solid Waste Management Rules: Water Quality Monitoring, Leachate Monitoring, and Waste Characterization*, 06-096 CMR 405 (last amended June 16, 2006).

2. General Licensing Requirements. Except for facilities which are exempt from licensing pursuant to section 1.B of this Chapter or licensed under sections 5 and 6 of this Chapter, any person proposing to establish a new solid waste composting facility or alter an existing solid waste composting facility must obtain a license pursuant to 06-096 CMR 400(4) and sections 2 through 4 of this Chapter.

NOTE: 06-096 CMR 400(4) – General Licensing Criteria – is appended to this Chapter as Appendix A for ease of use.

A. Composting Facility General Siting Standards. At the time the application is filed with the Department, the waste handling area at a proposed composting facility may not be located:

(1) Closer than 100 feet to the solid waste boundary of an active, inactive or closed solid waste landfill;

(2) Within a 100 year flood plain;

(3) Within 100 feet of a protected natural resource;

(4) In, on or over a protected natural resource, or on land adjacent to the following areas, without first obtaining a permit pursuant to the *Natural Resources Protection Act*, 38 M.R.S.A. §§ 480-A to 480-BB:

(a) A coastal wetland, great pond, river, stream or brook, or significant wildlife habitat contained within a freshwater wetland; or

(b) Freshwater wetlands consisting of or containing:

(i) Under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, except for artificial ponds or impoundments; or

(ii) Peatlands dominated by shrubs, sedges and sphagnum moss;

(5) Closer than 300 feet to off-site water supply wells or water supply springs;

(6) Closer than 100 feet to public roads and property boundaries;

(7) Closer than 10,000 feet to any airport runway used by turbojet aircraft, or within 5,000 feet of any airport runway used by only piston-type aircraft, when putrescible waste is to be handled outdoors in an uncovered or exposed condition.

B. Composting Facility General Design Standards.

(1) The facility process must be designed to produce a product meeting the specifications needed to distribute the product and must meet the applicable standards in 06-096 CMR 419.

(2) Design Capacity: The facility design must include composting systems and storage areas of sufficient capacity to accommodate all materials that are delivered to and generated by the facility.

(3) Environmental Monitoring Program Design: A composting facility which has been determined by the Department to pose a potential threat to public health or safety or the environment because of the nature and volume of feedstocks handled at the solid waste facility and/or the location,

design and operation of the facility, must have a monitoring program designed and implemented in accordance with the applicable requirements of the 06-096 CMR 405.

(4) Leachate Control: The facility design must include provisions to contain, collect and treat all leachate and wash waters generated at the facility.

(5) Clean-up: The facility design must include provisions for the regular wash down or dry clean-up of the facility.

(6) Access: The facility design must include suitable barriers or fencing and gates to prevent unauthorized persons access to the site.

3. Application Requirements. Any person seeking to establish a solid waste composting facility under sections 2 through 4 of this Chapter must provide information sufficient to meet the standards and submission requirements of 06-096 CMR 400. The applicant must submit to the Department, on forms developed by the Department, the following information:

A. General Information.

(1) Description: A brief description of the proposed composting facility.

(2) Topographic Map: The most recent full size U.S. Geological Survey topographic map (7 1/2 minute series, if available) of the area, showing the location of the proposed facility, the property boundary, and, if handling putrescible materials, airports within 10,000 feet of the site, all clearly and accurately delineated. The map must include all surrounding areas within one mile of the proposed site.

(3) Aquifer Map: A legible copy of the most recent Maine Geological Survey Significant Aquifer Map or Sand and Gravel Aquifer map with the facility site, property boundary and waste handling area clearly and accurately delineated on the map.

(4) Tax Map: A legible copy of the local tax map(s) marked with the facility site and the names and addresses of abutters on the appropriate lots. For a person proposing outdoor composting or storage, the map must indicate all residences within 1,000 feet of the waste handling area.

(5) Flood Plain Map: If the proposed site is within 1/4 mile of a 100 year floodplain, a legible copy of the most recent Federal Emergency Management Agency (FEMA) flood insurance rate maps of the 100-year frequency floodplain, with the location of the facility and property boundary clearly and accurately delineated.

B. Site Design Characteristics. An engineering design must be submitted as part of an application. The sophistication of engineering design required to develop a site for a composting facility varies according to the physical characteristics of the site, the size and complexity of the facility, and the nature of the wastes to be composted. The following components must be included in any engineering design:

(1) Site Plan. A detailed plan of the area within 500 feet of the waste handling area, with a scale of 1 inch = 100 feet or a larger scale, clearly showing, if applicable: all structures; protected natural resources; roads; property boundaries; receiving, composting, curing and storage areas; residences; erosion and sedimentation control features; odor control structures; water supply wells and springs; water quality monitoring points; and barriers or fencing and gates to prevent unauthorized persons access to the site. For facilities involving outdoor handling of putrescible wastes in an uncovered or exposed condition, this plan must also note the direction and distance of airports within 10,000 feet of the waste and waste handling area.

(2) Plan Views of the Structures and Utilities. A large scale construction plan view drawing, with a minimum scale of 1 inch = 40 feet, clearly showing any building(s) with foundations; processing unit(s); utilities; leachate, storm water, and erosion and sedimentation control details; and, if applicable, odor control systems.

C. Composting Facility Design Characteristics.

(1) Process Design: A general description of the facility's waste composting system must be submitted. The complexity and degree of detail of the description will vary depending on the magnitude and complexity of the process. The description must include, if applicable, process flow diagram(s), the source, volume, and characteristics of wastes to be received, the products and wastes to be generated; the methods to be utilized to mix, process and store wastes and products; the processing equipment to be used on site; provisions for characterization, including analytical information demonstrating that the incoming wastes meet the classification proposed to be handled at the facility; an identification of applicable standards for the product that the facility will produce, including, residual standards from 06-096 CMR 419, or other applicable standards from these rules, and a description of how these standards will be met.

(2) Type of composting method used at the facility (i.e. static pile, aerated static pile, windrow, passive aerated windrow system, in vessel, agitated bin, etc.);

(3) Methods used in mixing, constructing compost piles or windrows, curing and storage;

(4) Mixing, windrow construction, screening, turning, and aeration equipment;

(5) Ratio of residuals and other ingredients that will be mixed together taking into account the intended use of the composted residual; and based on a recipe that balances the mixture's:

(a) Ratio of available carbon to nitrogen;

(b) Moisture content throughout the process;

(c) Bulk density throughout the pile;

(d) Volatile solids content; and

(e) pH

(6) Proposed dimensions of compost piles or windrows;

(7) Method and frequency of aeration, including turning frequency or mechanical aeration equipment;

(8) Duration of composting process, including curing or storage time; and

(9) When applicable, the standards in 06-096 CMR 419 that the residual is being processed to meet, and provisions to monitor residual temperature, oxygen and moisture or other parameters to demonstrate that the standard is met.

D. Compost Distribution and Use Plan. The applicant must submit the application information required for licensing a utilization program under 06-096 CMR 419. The applicant must describe the disposition of other materials, including residue, generated at the facility that are not covered under a beneficial use or agronomic utilization program. The Department may require financial assurance in the form of a letter of credit, escrow account, or other approved financial security to finance the cost of potential remediation or disposal of waste, residue, including compost screenings, or secondary materials.

E. Operations Manual. The applicant must submit an operations manual, containing the information required in section 4 of this Chapter.

F. Environmental Monitoring Plan. The applicant must submit an environmental monitoring plan pursuant to section 2(B)(3) of this Chapter, including a waste characterization analytical work plan, if required by the Department.

G. Odor control. Based upon the location, design, and operational procedures of the proposed facility, the applicant must demonstrate that the facility will not cause an odor nuisance. The facility may not cause more than a one hour average odor impact of 2 dilutions to threshold (2D/T), in any calendar year at any occupied buildings.

NOTE: D/T is defined by ASTM Method 679-91, "Standard Practice for Determination of Odor and Taste Thresholds By a Forced-Choice Ascending Concentration Series Method of Limits". The applicant may wish to demonstrate that it will meet this standard at the processing facility's property boundary, to ensure that nuisance odors at occupied buildings will not occur if the areas near the facility are subsequently developed.

H. Site Investigation. A subsurface investigation must be conducted whenever the proposed composting facility includes the use of *in situ* soils as any part of a soil base pad for handling solid wastes, includes structures requiring foundations, or includes subsurface wastewater holding or disposal systems. The data must consist of soil test data in the proposed handling areas from a certified professional describing and evaluating the surficial geology and/or the subsurface soils. This information must demonstrate that the facility design is compatible with the site's soil characteristics, as determined by applicable engineering standards of practice.

4. Operating Requirements. Each composting facility subject to licensing under sections 2 and 3 or section 6 of this Chapter must comply with the following operating requirements. The composting facility must be operated and maintained in a manner that assures it will meet the approved design requirements; will not contaminate ground or surface water; will not contaminate the ambient air; will not constitute a hazard to health or welfare; will not create a nuisance; and will meet the standards in 06-096 CMR 400(4). Facilities with an existing solid waste composting license are required to operate in compliance with the provisions of this section.

A. Operations Manual. All composting facilities must be operated in accordance with a Department-approved operations manual that incorporates the operating requirements of its license and these rules. This manual must be available for inspection by Department staff during normal business hours. The facility's operations manual must be updated to keep current with revisions at the composting facility.

The operations manual must include the information that would enable supervisory and operating personnel, and persons evaluating the operation of the facility, to determine the sequence of operation, policies, procedures, monitoring, maintenance, inspection, and legal requirements that must be followed for safe and environmentally sound operation on a daily and yearly basis. The composting facility must be operated and maintained in a manner that assures it will meet the approved design requirements, will not contaminate ground or surface water, contaminate the ambient air, constitute a hazard to health or welfare, create a nuisance, and will meet the standards in 06-096 CMR 400(4). The manual must address all items contained in this section including the environmental monitoring plan, if required by the Department, and the odor control plan. The manual must also include a copy of the facility license, any amendments and revisions to that license, and a copy of the applicable sections of the most recent Solid Waste Management Regulations.

B. General Operations.

(1) Personnel: The operation of the composting facility must be under the overall supervision and direction of a person qualified and experienced in the operation of that type of facility or, in the case of an innovative design, be adequately trained by responsible personnel in the operation of the facility. The facility operator must take whatever measures are necessary to familiarize all personnel responsible for operation of the facility with relevant sections of the operations manual.

(2) Equipment: Equipment must be sufficient to meet the requirements, and the operator must provide for the routine maintenance of equipment.

(3) Environmental Monitoring: If required by the Department, the operator must implement the approved environmental monitoring program, including any required waste characterization.

(4) Fire Protection: The operator shall prevent and control fires at the composting facility by complying with at least the following:

(a) Arrange for a nearby fire department to provide emergency service whenever called;

(b) Develop and implement a plan to prevent spontaneous combustion in wood waste, residual and compost piles, as applicable; and

(c) Provide and maintain sufficient on-site equipment, such as detachable fire extinguishers, for minor fires.

NOTE: Facilities should develop a fire and rescue plan in conjunction with the local fire department.

(5) Vector Control: The on-site population of disease vectors must be minimized to protect public health.

(6) Dust Control: The operator must control dust generated by the facility.

(7) Storage:

(a) Raw materials, wastes, secondary materials, residue, including compost screenings, and finished compost, must be stored on the site such that they remain suitable for the intended use and may not be stored at the facility for more than 2 years.

(b) Materials with a carbon to nitrogen ratio (C:N) of less than 20:1 or that may contain constituents that may leach into groundwater may not be stored on *in situ* soils.

(c) Wastes, secondary materials and residue, including non-compostable compost screenings, may not be stored at the site for more than 2 years.

(8) Facility Maintenance and Litter Control: The operator must provide for routine maintenance and general cleanliness of the entire facility site, including control of windblown litter.

(9) Leachate Control: The facility must contain, collect and treat all leachate and stormwater runoff mixed with leachate.

(10) Sedimentation and Erosion Control: The facility must control sedimentation and erosion during construction and operation of the facility.

(11) Residue Disposal: The facility must provide for the routine disposal of residue, including non-compostable compost screenings, from the composting operation.

C. Access to Facility:

(1) The operator must maintain suitable barriers or fencing and gates to prevent unauthorized persons access to the site. The facility gate may be unlocked or open only when an authorized person is on duty. The operator must prominently post limitations and conditions of access at each entrance to the facility, including, if applicable, the hours of operation.

(2) The operator must provide and maintain in good repair access roads at the facility site.

(3) The operator must post appropriate signs and/or other means necessary to indicate clearly where waste is to be unloaded and where the separate storage areas within the facility are located.

(4) Adequate space must be maintained to allow the unobstructed movement of emergency personnel and equipment throughout operating areas of the facility.

D. Acceptance and Distribution of Solid Waste.

(1) The composting facility may only accept wastes for which it has been specifically designed and permitted by the Department. Incoming wastes must undergo a visual inspection and, if appropriate, analysis to ensure that only wastes allowed by the facility license are accepted at the facility. All other wastes must be removed and handled at an approved facility.

(2) Waste Disposal: The operator must have procedures in place, prior to the start of operation, for disposal of residue, bypass and other solid waste, including non-compostable compost screenings, generated by the composting facility, including contingency procedures for implementation during emergencies and shutdown periods. The operator must also maintain a valid contract with a solid waste facility which has Department approval to accept the waste.

(3) The facility may not incorporate painted wood, treated wood, plywood, chipboard, plastic, wood with fasteners, nails, glue, adhesives, resins, paint or coatings, or wood that is otherwise contaminated into the composting process. All such wood, if received at the facility, must be stored separately from wood used as amendment in the composting process and disposed in an approved solid waste disposal facility.

E. Odor Control.

(1) The facility must be operated to prevent nuisance odors at occupied buildings.

(2) Facility personnel must immediately contact the Department's Solid Waste Management Division to report odor complaints received by the facility. The Department, after investigation, will determine whether the facility has caused a nuisance odor at an occupied building. Facility personnel must, within 30 days of a Department determination of an off-site odor nuisance, report to the Department's Solid Waste Management Division, in writing, causes of odor generation and completed or planned follow-up action to minimize, control, and/or treat the odors from the facility.

F. Record Keeping. The facility operator must maintain the following records and make the records available for Departmental inspection and copying for the duration of the facility operation and a minimum of two (2) years after facility closure:

(1) When applicable, as-built engineering drawings of the facility;

(2) Results of analyses required by this Chapter and/or facility license;

(3) The Department-approved operations manual meeting the requirements of this section;

(4) Copies of periodic and annual reports submitted to the Department; and

(5) Operations Log: An operations log must be kept at any composting facility that is operated to reduce the pathogen content, reduce vector attraction properties, reduce putrescibility, reduce the carbon to nitrogen ratio, or otherwise stabilize a residual. The operations log must contain the source and volume of residuals received on a daily basis; the mixture of residuals composted at the facility; composting monitoring data; date, time and type of samples obtained from the facility; and volume and type of residuals and finished compost distributed from the facility on a daily basis, including to whom the residuals and finished compost are distributed.

G. Periodic Reporting. Licensees must submit periodic reports to the Department containing the results of environmental monitoring, including waste characterization, and any other information required in accordance with the facility license. Reporting periods will be identified in the individual facility license.

H. Annual Report. By February 28th of each year, the facility operator must pay the annual facility reporting fee established in Maine law, and submit an annual report to the Department for review and approval. The annual report must include a summary of activity at the composting facility during the previous calendar year. The annual report must summarize the facility's activities, and at a minimum include the following:

(1) Volume, source and type of wastes received by the facility;

(2) Volume of compost produced;

(3) Volume of compost, raw feedstocks, waste and residue, including non-compostable compost screenings, distributed off-site, and the locations to which any such items were distributed;

(4) Volume of compost, raw feedstocks, waste, secondary material, and residue, including non-compostable compost screenings, stored on site as of December 31;

(5) A general summary of the composting operation including problems encountered and follow-up actions, changes to the facility operation, and a summary of odor or other complaints received by the facility during the previous year;

(6) A discussion of any odor problems, and a discussion of any factors, either at the facility or elsewhere, which affected the operation, design, or environmental monitoring program of the facility.

(7) Other alterations to the facility site not requiring Departmental approval that have occurred during the reporting year. Minor aspects of the facility site proposed to be changed in the current year may be described in the annual report. Changes handled in this manner are those that do not require licensing under minor revision or amendment provisions of 06-096 CMR 400; and

(8) A summary and evaluation of the past year's environmental monitoring program results, if required by the Department.

I. Facility Closure.

(1) Closure Performance Standard. The facility must be closed in a manner that minimizes the need for further maintenance; and so that the closed facility will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance. At a minimum, the applicant must remove all compost, wastes, secondary materials, leachate and leachate-

contaminated sediment, and residue, including compost screenings, from the facility. The applicant must stabilize all site soils in accordance with Maine erosion and sediment control best management practices. The applicant must broom clean the facility structures and equipment.

(2) Closure Plan: The operator of a composting facility shall submit a closure plan to the Department, for review and approval, a minimum of ninety (90) days prior to the proposed date of the closure of a solid waste composting facility. The plan must include:

(a) An description of the proposed closing operation;

(b) A schedule for the removal of all stored compost, wastes, secondary material, leachate and leachate-contaminated sediment, and residue, including compost screenings; and

(c) The intended destination of all stored compost, wastes, secondary material, leachate and leachate-contaminated sediment, and residue, including compost screenings.

5. Permit-By-Rule Composting Of Wood, Leaf And Yard Wastes.

A. Applicability.

(1) New Facilities: The permit-by-rule licensing provisions of this section shall apply to owners or operators of facilities that compost Type IA residuals and grass clippings and that meet all of the standards of this section. Failure to meet any of these standards will require formal application to the Department for a license to develop and operate the solid waste composting facility under sections 2 through 4 or section 6 of this Chapter. By adopting these provisions, the Department finds that the composting of Type IA residuals and grass clippings in strict conformity with these permit-by-rule provisions will meet the standards of 06-096 CMR 400(4). Facilities licensed under this section are exempt from the requirements of 06-096 CMR 400(9). No variances to the requirements of this section may be granted.

NOTE: See 06-096 CMR 400(1) for a full definition of residual types. Type IA residuals are leaf, vegetative and other residuals with a C:N ratio of greater than 25:1 See Appendix B of this Chapter for a list of typical C:N ratios for various residuals.

(2) Existing Licensed Facilities: Composting facilities previously licensed pursuant to 06-096 CMR 409(8) remain in effect, subject to the conditions specified in 06-096 CMR 400(3)(E).

B. Standards and Operating Requirements:

(1) The composting facility may only receive Type IA residuals and grass clippings. It may not accept painted wood, treated wood, plywood, chipboard, plastic, wood with fasteners, nails, glue, adhesives, resins, paint or coatings, or wood that is otherwise contaminated.

(2) The total waste handling area may not exceed three (3) acres and total on-site storage areas may not exceed one (1) acre. Individual storage piles may not exceed 10,000 square feet.

(3) Setback Distances: At the time a complete permit-by-rule notification is submitted to the Department, proposed storage, processing, composting, or curing of any regulated residual may not lie within:

(a) 500 feet of any water supply spring;

(b) 500 feet of any water supply well and any residence, unless owned by the site operator or owner;

(c) 100 feet of any protected natural resource;

(d) In, on or over a protected natural resource, or on land adjacent to the following areas, without first obtaining a permit pursuant to the *Natural Resources Protection Act*, 38 M.R.S.A. §§ 480-A to 480-BB:

(i) A coastal wetland, great pond, river, stream or brook, or significant wildlife habitat contained within a freshwater wetland; or

(ii) Freshwater wetlands consisting of or containing:

a. Under normal circumstances, at least 20,000 square feet of aquatic vegetation, emergent marsh vegetation or open water, except for artificial ponds or impoundments; or

b. Peatlands dominated by shrubs, sedges and sphagnum moss;

(e) 100 feet of any property boundary;

(f) 100 feet of the solid waste boundary of an active, inactive, or closed solid waste landfill; and

(g) A 100-year flood plain.

(4) Soils: The applicant may only compost, cure and store residuals on:

(a) Soils that a Maine Certified Soil Scientist has determined are moderately well drained to well drained, as classified by the Natural Resources Conservation Service, and that are at least 24 inches above the seasonal high water table, bedrock, and sand or gravel lenses;

(b) A pad constructed with the surface at least two (2) feet above the seasonal high water table and is either composed of:

(i) Two (2) feet of glacial till (having between 15 and 35% fines) covered with a six (6)- inch drainage layer of gravel; or

(ii) Soil covered with asphalt or concrete; or

(c) A surface determined by a Maine Certified Soil Scientist, soil engineer or other qualified individual as being suitable for the proposed activity, taking into account the other aspects of the facility design; or

(d) On a land area under a permanent, roofed structure.

(5) Drainage: Surface water drainage must be diverted away from processing, composting curing, and storage areas.

(6) Slopes: Compost windrows must be constructed on a pad or surface with a maximum slope of 6%. Where necessary, the working surface for windrows must be constructed to prevent ponding.

(7) The facility must be operated so that it does not contaminate water, land or air from the handling, storage or composting of wood, leaf, and yard wastes.

(8) Inspection and access control: The operator must control unauthorized access to the site and visually inspect incoming residuals so that only Type IA residuals and grass clippings are accepted at the facility.

(9) Pile Construction: Incoming Type IA residuals must, within one week of delivery to the site, be formed into windrow piles 10 feet high by 15 to 20 feet wide at the base, or other configuration that provides for the proper conditions under which aerobic composting will occur. Windrows must run with the slope of the pad such that runoff is not trapped by the windrows.

(10) Grass: Grass clippings must be incorporated, and thoroughly mixed into established windrows at a ratio of no more than one part grass to three parts Type IA residuals (1 grass:3 carbonaceous-material) by volume within 24 hours of receipt at the facility. The composting facility must not accept grass clippings unless there is a sufficient volume of Type IA residuals available to meet this ratio.

(11) Windrow turning: The windrow must be turned at least four (4) times per year. There must be no more than six (6) months between any two (2) turnings.

(12) Distribution: Compost must be distributed for use within one (1) year of completion of the compost process, and within three (3) years of receipt of the raw materials for composting.

(13) Fire control: The operator must develop and implement a plan to prevent spontaneous combustion in residual and compost piles at the site.

(14) Annual Report: By February 28th of each year, the operator must submit an annual report covering the previous calendar year. The annual report must contain:

(a) The estimated volume of residuals received at the facility;

(b) An estimated volume of compost produced at the facility;

(c) The estimated volume of compost distributed from the facility;

(d) The estimated volume of compost and residue, including compost screenings, stored on site as of December 31st; and

(e) A description of any problems in operations encountered during the year, and steps taken to correct those problems.

(15) Closure: The facility must be closed in a manner that minimizes the need for further maintenance; and so that the closed facility will not pollute any waters of the state, contaminate the ambient air, constitute a hazard to health or welfare, or create a nuisance. At a minimum, the applicant must remove all compost, wastes, secondary materials, and residue, including compost screenings, from the facility; and broom clean the facility structures and equipment.

C. Notification Requirements. At least 15 working days prior to acceptance of Type IA residual or grass clippings at the facility for composting, the applicant shall submit to the Department a permit-by-rule notification on a form developed by the Department. This notification must include:

(1) The applicant's name, address, telephone number and contact person.

(2) The appropriate application fee.

(3) Description: A brief description of the proposed project including a description of the residual to be processed.

(4) Title, Right, or Interest: A demonstration of sufficient title, right or interest to the property proposed for development, as specified in 06-096 CMR 2(7).

(5) Topographic Map: A legible copy of the most recent full size U.S. Geological Survey topographic map (7 1/2 minute series, if available) of the area, showing the location of the proposed facility, and the property boundary clearly and accurately delineated.

(6) Flood Plain Map: If the proposed site is within 1/4 mile of a 100 year floodplain, a legible copy of the most recent Federal Emergency Management Agency (FEMA) flood insurance rate maps of the 100-year frequency floodplain, with the location of the facility and property boundary clearly and accurately delineated.

(7) Tax Map: A legible copy of the local tax map marked with the facility location and the names and addresses of abutters marked on it. The map must indicate all residences within 500 feet of the waste handling area.

(8) Soil and Pad Design: One of the following:

(a) A certification from a Maine Certified Soil Scientist that the soils where residuals will be composted and cured are moderately well-drained to well-drained, as classified by the Natural Resources Conservation Service, and that are at least 24 inches above the seasonal high water table, bedrock, and sand or gravel lenses; or

(b) A description of the pad or other surface that the residual will be composted and cured on, and which of the standards in section 5(B)(4) of this Chapter that surface meets; or

(c) A certification from a Maine Certified Soil Scientist, soil engineer or other qualified individual that the surface is suitable for the proposed activity, taking into account the other aspects of the facility design; or

(d) A certification that all composting and curing will be conducted under a permanent, roofed structure.

(9) A fire control plan to prevent spontaneous combustion in residual and compost piles.

(10) Public Notice: A copy of the public notice and other information to demonstrate that the applicant is fulfilling the requirements of 06-096 CMR 400(3).

(11) Certification: A statement signed by the facility landowner and the person responsible for the facility stating that all standards and requirements of this section will be met throughout operation and closure of the facility.

6. Reduced Procedure For Select Compost Facilities.

A. Applicability. This section applies to compost facilities that choose to follow the siting, design and operational standards in this section and compost the following residuals:

(1) Any amount of Type IA residuals; and/or

(2) Up to 400 cubic yards monthly of Type IB residuals; and/or

(3) Up to 200 cubic yards monthly of Type IC residuals or up to 200 cubic yards monthly of Type II residuals.

If the conditions of this section will not be met, or if the applicant chooses to site, design or operate the facility in a manner that would not meet the standards of this section, then the applicant must submit an application to the Department for a license to develop and operate the compost facility under sections 2 through 4 of this Chapter. Facilities licensed under this section are subject to the operating standards in section 4 of this Chapter.

B. Reduced Procedure Siting and Design Standards. In addition to the general siting and design standards contained in section 2 of this Chapter, a compost facility licensed under this section must comply with the following standards:

(1) Working surface: Mixing, composting, curing, storing or otherwise handing residuals, and compost at the facility must be on surfaces meeting one of the following standards:

(a) On soils that a Maine Certified Soil Scientist has determined are moderately well-drained to well-drained, as classified by the Natural Resources Conservation Service, and that are at least 24 inches above the seasonal high water table, bedrock, and sand or gravel deposits.

(b) On a pad that is constructed a minimum of two (2) feet above the seasonal high water table and is either composed of:

(i) a minimum of eighteen (18) inches of soil material having between 15 and 35% fines, covered with a minimal six (6)- inch drainage layer of compacted gravel; or

(ii) soil covered with asphalt or concrete.

(c) Alternative surface: On a surface determined by a Maine Certified Soil Scientist, soil engineer or other qualified individual as being suitable for the proposed activity, taking into account the other aspects of the facility design, such as a roofed structure or in-vessel system. An applicant must arrange a pre-application meeting with the Department if proposing an alternative surface under this section.

(2) Pad: At a facility handling Type IC residuals, the receiving and mixing pad must be constructed with asphalt, concrete, or other similar material. At a facility handling any amount of Type II residuals, or more than 750 cubic yards of Type IC residuals annually, the entire waste handling area must consist of a pad constructed of asphalt, concrete, or other similar material for the entire waste handling area, excluding the storage area for compost meeting the requirements of section 6(C)(5) of this Chapter.

(3) Runoff, Storm Water, and Leachate Control: Surface water drainage must be diverted away from receiving, processing, composting, curing, and storage areas. The facility must also be designed to manage runoff and collect all leachate to prevent contamination of groundwater or surface water. Water falling on the facility during a storm of an intensity up to a 25-year, 24-hour storm event must infiltrate or be detained such that the storm water rate of flow from the facility after construction does not exceed the rate prior to construction. The facility design must include provisions to contain, collect and treat any leachate and contaminated stormwater or runoff generated at the facility.

(4) Slopes: Surfaces on which composting takes place must slope between 2% and 6%, and where necessary, be graded to prevent ponding of water.

C. Operating Requirements. In addition to the operating requirements of section 4 of this Chapter, a compost facility licensed under this section is subject to the following additional operating requirements.

Facilities licensed pursuant to 06-096 CMR 409(9) are subject to the operating requirements of section 4 of this Chapter, and the following additional operating requirements:

(1) Pad Inspection: All soil surfaces used for residuals mixing and composting must annually be graded clean and re-compacted. All concrete and asphalt pads must annually be scraped clean and inspected for cracks or other deformities, and repaired as needed. The operator must maintain the minimum two (2)-foot separation to bedrock, groundwater and sand or gravel deposits.

(2) Odor Control: The facility must be operated to prevent nuisance odors. The facility must:

(a) Operate and maintain the odor control system approved by the Department;

(b) Receive incoming putrescible residuals on a pile of sawdust or other sorbent, high carbon compost amendment;

(c) Contain and treat process air or cover odorous piles with a layer of finished compost or other suitable compost amendment;

(d) Properly aerate piles such that composting is aerobic throughout the pile;

(e) Blend materials to achieve a homogenous mix throughout the pile; and

(f) Alter the compost recipe as needed to alleviate odorous emissions.

(3) Pathogen treatment and vector attraction reduction: Type IC residuals with the potential to contain human pathogens and Type II residuals must be composted to achieve a Class A Pathogen Reduction and Class A Vector Attraction Reduction in accordance with 06-096 CMR 419, Appendix B, unless otherwise approved in the facility's utilization license issued under 06-096 CMR 419. To attain these standards by composting, all of the following standards must be met:

(a) Pathogen Reduction: Each particle of residual is maintained at 55 degrees Celsius or higher for at least three (3) consecutive days. For windrow systems, this standard is presumed to be met if the residual is maintained at operating conditions of 55 degrees Celsius or higher for 15 days or longer, and during the period when the compost is maintained at 55 degrees or higher, there is a minimum of five turnings of the compost pile.

(b) Vector Attraction Reduction: Residual must be treated by an aerobic composting process for 14 days or longer. During that time, the temperature of the residual must be higher than 40 degrees Celsius and the average temperature of the residual must be higher than 45 degrees Celsius.

(c) Analytical Standard: The density of *Salmonella sp*. bacteria in the finished compost must be less than three (3) Most Probable Number per four (4) grams of total solids (dry weight basis) or the density of fecal coliform in the finished compost is shown to be less than 1000 Most Probable Number per gram of total solids (dry weight basis). This analytical standard must be met at the time the compost is distributed for utilization.

(4) Static Pile Composting: The following additional standards apply to composting Type IC or Type II residuals using the static pile method:

(a) The static piles must be aerated during the active composting stage;

(b) Detention time in the static aerated pile must be at least 21 days;

(c) If an auger, tub grinder hammer mill, or other Department-approved mixer is not used to mix the initial ingredients for the pile, the pile must be broken down half way through the active composting process and re-formed.

(d) To maintain temperatures throughout the pile and control odors, the pile must be fully covered with an insulating blanket of at least 12 inches of finished compost, sawdust, or other material as approved by the Department during the active compost phase.

(5) Stability/Maturity: Residuals that have completed the active composting phase and are only destined for bulk distribution for direct agricultural uses or blending with other residuals must also be cured until the equivalent of a Dewar's stability class of III or greater is achieved and the final C:N ratio of the finished compost is less than 25:1. Additionally, compost that is destined for bagging or high-end horticultural purposes must be cured until the equivalent of a Dewar's stability class of IV or greater is achieved, the final C:N ratio is less than 25:1 and the total NH_3-N is less than 800 parts per million.

NOTE: Compost facility operators may opt to use other industry standard tests to achieve this standard, provided that they receive written approval from the Department.

(6) An operations log must be kept at the facility and made available for Department review during normal business hours. The operations log must contain the following:

(a) Source and volume of residual received on a daily basis;

(b) Date of individual pile construction and breakdown;

(c) Pile composition (mixture recipe);

(d) Date and time of turning or otherwise aerating;

(e) Process monitoring data;

(f) Date the pile is put into curing and the date it is taken out of curing;

(g) Date, time, volume, and type of samples obtained from the facility;

(h) Name of the person collecting samples at the facility.

(7) The facility may not receive more than the volumes in section 6(A) of this Chapter.

(8) Residuals must be handled on approved surfaces. Type IC and Type II residuals must be offloaded and mixed on a receiving pad meeting the standards in section 6(B)(2) of this Chapter.

D. Application Requirements. The applicant shall submit to the Department, on forms developed by the Department, information sufficient to meet the standards and submissions requirements of 06-096 CMR 400(4) and the application requirements of section 3 of this Chapter. For outdoor compost facilities, instead of the site investigation information required by section 3(H) of this Chapter, the applicant may submit a report from a Maine Certified Soil Scientist or other qualified individual that either:

(1) Verifies that the waste handling areas for the proposed facility are on soils that are moderately well-drained to well-drained, as classified by the Natural Resources Conservation Service, and are at least 24 inches above the water table, bedrock, and sand or gravel deposits; or

(2) Identifies all major limitations to the proposed development presented by the soil characteristics and describes the techniques to be used to overcome the soil limitations identified in the soil survey.

STATUTORY AUTHORITY: 38 MRSA sections 341-D(1-B) and 1304(1 & 1-B)
EFFECTIVE DATE: February 18, 2009

APPENDIX A: 06-096 CMR 400(4)
GENERAL LICENSING CRITERIA

4. General Licensing Criteria. This section contains general standards applicable to the licensing of solid waste facilities. This section also lists submissions required of applicants for new or expanded facilities in order for the Department to determine if the general licensing criteria are met. All applicants must demonstrate compliance with the criteria of this section and submit the listed submissions unless otherwise provided in the relevant facility chapter. Required submissions for amendments, minor revisions and limited permits will be determined by the Department on a case-by-case basis to determine if the proposal meets the relevant general licensing criteria.

A. Title, Right or Interest

(1) Standards. The applicant must demonstrate to the Department's satisfaction sufficient title, right or interest in all of the property which is proposed for development or use.

(2) Submissions. The applicant must submit evidence of sufficient title, right or interest as provided in Chapter 2, section 7(D).

B. Financial Ability

(1) Standards.

(a) The applicant must have the financial ability to design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the solid waste facility in a manner consistent with all applicable requirements.

(b) The applicant for a solid waste disposal facility shall provide adequate financial assurance for closure, post-closure care, and for corrective action for known releases in compliance with the financial assurance requirements of section 11.

(2) Submissions. The application must include evidence that affirmatively demonstrates that the applicant has the financial ability to undertake the proposed project, including the following information, when appropriate:

(a) Accurate cost estimates for the design, construction, operation, maintenance, closure and (if applicable) post-closure care of the solid waste facility.

(b) Evidence that funds are or will be available to design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the solid waste facility, or to contract for the same, including the following:

(i) when a financial institution is the funding source, the application must include:

a. a letter from a financial institution, governmental agency, or other funding agency indicating a commitment to provide a specified and sufficient amount of funds and the uses for which the funds may be utilized; or

b. in cases where funding is required but there can be no commitment of money until approvals are received, a letter of "intent to fund" from the appropriate funding institution. Evidence of financing must be provided prior to project construction.

(ii) when self-financing is a funding source for the solid waste facility, the application must include:

a. the most recent corporate annual report indicating availability of sufficient funds to finance the proposed project, through self-financing, together with explanatory material interpreting the report;

b. evidence that funds are available and have been set aside for completion of the proposed project; or

c. if the applicant is a governmental entity, evidence that the entity has the bonding or other capacity to finance the proposed project.

C. Technical Ability.

(1) Standards

(a) The applicant shall have the technical ability to design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the solid waste facility in a manner consistent with state environmental requirements, including the Maine Solid Waste Laws and these rules.

(b) The applicant shall meet the civil/criminal record standards of section 12.

(2) Submissions. The application must include evidence that affirmatively demonstrates that the applicant has the technical ability to design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the solid waste facility, including information such as the following:

(a) A statement of the applicant's prior solid waste management experience or appropriate training or both;

(b) A description of the personnel who will be employed to design, construct, operate, maintain, close and (if applicable) accomplish post-closure care of the proposed facility; and

(c) The proposed owner's and operator's prior conduct as a measure of their willingness and ability to meet all terms and conditions of approval established by the Department including information addressing all of the information required in section 12.

D. Provisions for Traffic Movement.

(1) Standards. The applicant for a solid waste facility must make adequate provisions for safe and uncongested traffic movement of all types into, out of, and within the proposed solid waste facility.

(a) The major haul routes must be able to safely accommodate the number, weight and types of vehicles transporting waste to and from the proposed solid waste facility.

(b) The entrance and exit design for the proposed solid waste facility must have safe sight distances in all directions and provisions for safe turning.

(c) Improvements to roads or intersections that are necessary due to the establishment of the proposed solid waste facility must be completed prior to initial operation of the solid waste facility unless an alternative schedule is approved by the Department.

(d) Major interior travel lanes must be designed to allow continuous and uninterrupted traffic movement without posing danger to pedestrians or other vehicles.

(e) The facility road construction and maintenance must provide safe traffic movement.

(f) On-site circulation patterns must be clearly defined.

(2) Submissions. The application must contain evidence that roads and intersections in the vicinity of the proposed solid waste facility will safely and conveniently handle the traffic attributable to the facility. This evidence must include the following:

(a) An estimate of the number, weight, and types of vehicles that will be transporting waste to and from the proposed facility.

(b) A map clearly delineating the anticipated major haul routes to and from the facility to be used by vehicles serving or using the solid waste facility, with a description of the road characteristics including legal weight limits and restrictions.

(c) An identification of all sections of roads and intersections along the projected haul routes that are:

(i) congested locations, or

(ii) not rated to handle the weights or types of vehicles expected to transport solid waste to or from the facility.

(d) Identification of vehicle routing decisions that were made based on these limits and a description of any actions the applicant proposes to take.

(e) A Maine Department of Transportation inventory and analysis of traffic accidents on roads and at intersections within a quarter mile of the proposed solid waste facility entrances and exits during the most recent 3-year period. The inventory must include identification of high accident locations and identification of feasible countermeasures based on discernible accident patterns at any high accident location.

(f) Sight distances at the proposed solid waste facility entrances and exits and a copy of the Maine Department of Transportation entrance permit, if applicable, or if the solid waste facility entrance is not located on a state supported highway, evidence that a qualified professional has certified that safe sights distances will exist in all directions. This review must be conducted in conformance with the standards specified in A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (1994); and the Highway Design Guide, Maine Department of Transportation (September 1990). Intersection sight distance is the length of roadway visible to the driver. It must be measured from the intersection (at a point 10 feet back from the edge of the travel way) to the centerline of the opposing lane(s).

Note: Additional information concerning safe sight distances and other access management standards applicable to Maine can be found in, Access Management Improving the Efficiency of Maine Arterials A Handbook for Local Officials, Maine Department of Transportation (1994).

(g) The nature of the interior roadways, intersections and parking facilities, including the following:

(i) road construction, number of lanes, width of road, speed limit, and traffic circulation of the proposed roads;

(ii) areas of pedestrian use;

(iii) how circulation patterns will be defined; and

(iv) how the facility roads will be maintained.

(h) A traffic study, if required by the Department. The Department will require a traffic study if the application does not contain sufficient information to determine that all of the traffic standards of this section will be met. A traffic study may also be required if a traffic standard that is not met could possibly be corrected by application or design changes that require additional information. The Department's determination that a traffic study is required may be based solely on information or comments submitted to it by the Maine Department of Transportation.

(3) Elements of a Traffic Study. A traffic study must meet the requirements of this paragraph. The year for which the study results are to be characterized is the projected first year of full operation. If the proposed solid waste facility is a multi-phase project with a projected completion date more than 5 years after the year of the study, the Department may require that the study results be characterized for the year that corresponds to the opening of the first major phase or to the timing of transportation system improvements, such as a major bridge construction project.

At a minimum, the traffic study must contain the following:

(a) A brief description of the physical characteristics of the solid waste facility. This section must identify the size of the facility site, general terrain features and unique terrain features.

(b) A regional map showing the proposed solid waste facility, each road in the vicinity of the proposed facility and proposed haul routes to and from the facility for the vehicles that will use or serve the facility.

(c) A description of traffic increases that are expected from sources other than the proposed solid waste facility and that are likely to occur in the vicinity of the proposed solid waste facility during the study period. At a minimum, the study must identify development or redevelopment proposals which have been approved, either locally or by the Department, and development or redevelopment proposals for which complete applications have been filed with and accepted by a local reviewing authority or the Department at the time of the traffic study.

(d) Trip generation calculations for the proposed solid waste facility and for other proposed development and redevelopment projects in the vicinity of the proposed solid waste facility. If data from the “Trip Generation Guide” of the Institute of Transportation Engineers, is not available for other proposed development and redevelopment projects, trip generation must be estimated in accordance with a methodology approved by the Maine Department of Transportation.

(e) A diagram of the traffic volume on roads and intersections in the vicinity of the proposed solid waste facility for both the estimated annual average daily traffic and the A.M./P.M. peak hour traffic, including turns during the peak hour. Traffic diagrams must show the following:

(i) traffic attributable to the facility and other developments.

(ii) existing traffic volume. All traffic counts must be actual counts whenever possible. Traffic counts from the Maine Department of Transportation may be used if not more than two years old.

(iii) projected traffic volume for the hours required above at the time the facility will begin full operation.

(iv) documentation, including all new traffic counts and analysis worksheets, as to how the various volumes were derived to accompany the diagrams.

(f) A capacity analysis must be performed to determine the level of service for each road and intersection in the vicinity of the proposed solid waste facility. Capacity calculations must be made for the 30th highest hour of traffic during the year that the facility would begin operation, or any other appropriate design hour approved by the Maine Department of Transportation. Where it is shown that the capacity analysis methodology will not accurately measure operating conditions or levels of service at a road or intersection, the Department may require an applicant to analyze operating conditions of an intersection or road using another methodology acceptable to the Maine Department of Transportation.

(g) The need for new traffic signals in the vicinity of the proposed development must be analyzed using the warrants in the Manual on Uniform Traffic Control Devices, US. Department of Transportation, Federal Highway Administration (1988). Although an intersection may meet the MUTCD warrants, the Maine Department of Transportation may determine that a signal is not appropriate.

(h) A determination of the available sight distances in all directions at each intersection in the vicinity of the proposed development. Intersection sight distance is the length of roadway visible to the driver. It must be measured from the intersection (at a point 10 feet back from the edge of the travel way) to the centerline of the opposing lane(s).

(i) If the study analyses indicate that unsatisfactory levels of service or unsafe conditions exist or will occur at intersections or on roads in the vicinity of the proposed development, a description of the measures recommended to remedy the deficiencies, including the following.

(i) Recommended Improvements. A description and diagram of the location, nature, and extent of recommended improvements to roads and intersections in the vicinity of the proposed development. Accompanying this list of improvements must be preliminary cost estimates. Of the recommended improvements, those proposed for implementation must be identified.

(ii) Capacity Analysis After Improvement. A description of the anticipated results of making these improvements.

(j) A clear, concise summary of the study findings.

E. Fitting the Solid Waste Facility Harmoniously into the Natural Environment

(1) Standards

(a) The solid waste facility must have buffer strips of sufficient size and quality to adequately protect aquatic and wildlife habitat and the natural environment. The facility may not unreasonably adversely affect protected natural resources and rare, threatened and endangered plant and animal species.

(b) The solid waste facility must have a minimum of 100 feet of buffer between the facility site and those locations and habitats listed above, unless otherwise approved or required by the Department.

(2) Submissions. For solid waste facilities with waste handling areas of less than 3 acres total area, the applicant shall include letters from the Maine Department of Inland Fisheries and Wildlife and from the Natural Areas Program of the Maine State Planning Office that the facility will not unreasonably adversely impact protected significant wildlife habitat, fragile mountain areas, or rare, threatened and endangered plant or animal species. For all facilities with waste handling areas larger than 3 acres, the applicant shall include evidence that affirmatively demonstrates that the solid waste facility fits harmoniously into the natural environment. This includes the following:

(a) The proposal must include adequate buffer strips. This information must include:

(i) the location and description of the locations, habitats, and species listed above that are within or adjacent to the facility site;

(ii) the nature, location, width, and height of all buffer strips to be retained or enhanced;

(iii) the nature, location, width, and topography of all buffer strips that need to be established to restore buffer functions in areas that will be disturbed;

(iv)-provisions for the maintenance of all buffer strips and screens;

(v) a description of how buffer strips of sufficient area, width, and character will be established, maintained or enhanced to protect the locations and habitats; and

(vi) an explanation of how the proposed solid waste facility and activities will not unreasonably adversely affect protected natural resources.

(b) The application must identify all unusual natural areas on or adjacent to the facility site and must include evidence that affirmatively demonstrates that the proposed facility will not unreasonably adversely affect protected natural resources.

F. No Unreasonable Adverse Effect on Existing Uses and Scenic Character

(1) Standards. The solid waste facility may not unreasonably adversely affect existing uses and scenic character. Specifically, the facility may not:

(a) Present a bird hazard to aircraft;

(b) Have an unreasonable adverse effect on the preservation of historical sites;

(c) Unreasonably interfere with views from established public viewing areas;

(d) Generate excessive noise at the property boundary or at any protected location; or

(e) Unreasonably adversely affect existing uses of property neighboring the proposed solid waste facility.

(2) Noise Standards. The following noise standards shall apply to all solid waste facilities. Protected locations shall only include those locations defined in subsection 400.1 for which the hourly sound levels from the facility will be greater than 45 dBA.

(a) Sound Level Limits. The following hourly sound levels from routine operation of a solid waste facility must be less than or equal to;

(i) 75 dBA for daytime and nighttime hours at the facility property boundary;

(ii) 60 dBA for daytime hours and 50 dBA for nighttime hours at any protected location in an area for which the zoning, or, if unzoned, the existing use or use contemplated under a comprehensive plan, is not predominantly commercial or industrial; or

(iii) 70 dBA for daytime hours and 60 dBA for nighttime hours in an area for which the zoning, or if unzoned, the existing use or use contemplated under a comprehensive plan, is predominantly commercial or industrial.

(b) Alternative levels. If the applicant chooses to demonstrate by measurement that the daytime or nighttime pre-development ambient sound environment at any protected location exceeds the daytime or nighttime limits above, by at least 5 dBA, then the daytime or nighttime limits are 5 dBA more than the measured daytime or nighttime pre-development ambient hourly sound level at the location of the measurement for the corresponding time period.

(c) Existing Facilities. For any protected location near an existing solid waste facility, the hourly sound level limit for routine operation of the existing facility and all future expansions of that facility is the hourly sound level written above, or at the applicant's election, the existing hourly sound level from routine operation of the facility before any expansions plus 3 dBA.

(d) All equipment used in the construction of and maintenance activities at the solid waste facility must comply with applicable local and federal noise regulations, and include environmental noise control devices in proper working condition and maintained as originally provided with the equipment by its manufacturer.

(e) Sounds associated with the following are exempt from the sound level limits of this section:

(i) routine engine sounds from registered and inspected motor vehicles:

a. while operating on public ways, or

b. that enter the facility to make a delivery or pickup and that are moving, starting or stopping, but not when they are parked with the engine running for over 60 minutes in the facility.

(ii) the unamplified human voice and other sounds of natural origin.

(iii) emergency maintenance and repairs.

(iv) facility and vehicle warning signals and alarms so long as used in appropriate circumstances.

(v) safety and protective devices installed in accordance with the devices' installation instructions.

(vi) boiler start-up, testing and maintenance operations occurring no more frequently than once per month.

(vii) test operations of emergency equipment occurring in the daytime and no more frequently than once per week.

(viii) major concrete pours that must extend after 7:00 p. m., when started before 3:00 p. m.

(ix) snow removal, landscaping and street sweeping activities.

(x) sound from a regulated development received at a protected location when the generator of the sound has been conveyed a noise easement for that location. This exemption shall only be for the specific noise, land and term covered by the easement.

(3) Submissions. Applications must include evidence that affirmatively demonstrates that the proposed solid waste facility will not unreasonably adversely affect existing uses and scenic character, including the following information:

(a) The nature, location, design, and size of all buffers and visual screens within those buffers to be established or retained;

(b) A description of the existing land uses in the vicinity of the proposed solid waste facility, all airport runways within 10,000 feet of the facility; all historic sites, protected locations and established public viewing areas within 2,000 feet;

(c) A demonstration that the solid waste facility will comply with the noise standards in paragraph 2 above and that the applicant will make adequate provision to control noise and the sound levels from each source resulting from the routine operation of the facility at the property boundary and any protected locations within the area;

(d) Evidence that acoustic enclosure for noise, buffer strips and screens, or other noise reduction measures have been considered and implemented in the design of the solid waste facility.

G. No Unreasonable Adverse Effect On Air Quality

(1) Standards. The solid waste facility may not unreasonably adversely affect air quality:

(a) The applicant must obtain an air emission license if required by 38 M.R.S.A. section 581 *et seq*. The air emissions produced from either point or non-point sources must be in conformance with the current State Implementation Plan, as approved by the Environmental Protection Agency.

(b) The applicant must control fugitive dust and nuisance odor.

(c) Open burning of solid waste other than clean or painted wood waste, is prohibited. Wood that has been treated and other wastes, such as tires or waste oil, shall not be open burned.

(2) Submissions. Applications must include evidence that affirmatively demonstrates that the proposed facility will not unreasonably adversely affect air quality, including the following information, when appropriate:

(a) Evidence that an air emission license has been or will be obtained if required.

(b) Description of the actions that the operator will undertake to control fugitive dust from the solid waste facility when a problem attributable to the facility occurs beyond the property boundary.

(c) The identification of any sources of nuisance odors from the facility.

(d) An estimation of the area that would be affected by the nuisance odor, based on general experience in dealing with the material or process that is the source of the odors.

(e) Proposed systems for enclosure of nuisance odor-producing materials and processes, and proposed uses of technology to control, reduce or eliminate odors.

NOTE: ASTME 679-79 can be used for guidance for control of nuisance odors.

(f) Evidence that the solid waste facility will not unreasonably alter climate if the facility has or is proposed to have water cooling towers.

H. No Unreasonable Adverse Effect on Surface Water Quality

(1) Standards. A solid waste facility:

(a) May not discharge any water pollutants, directly or indirectly, that affect the state classification of a surface water body, as specified in 38 M.R.S.A. section 464;

(b) May not discharge any pollutant without first obtaining a license pursuant to 38 M.R.S.A. section 413;

(c) May not degrade water quality by contributing to the phosphorous concentrations in "waterbodies most at risk from new development" as defined in Chapter 502.

(d) May not cause the discharge of a nonpoint source of pollution to waters of the United States that violates any requirement of an area-wide or State-wide water quality management plan that has been approved in compliance with section 319 of the Federal Water Pollution Control Act, as amended.

(2) Submissions. Applications must include evidence that affirmatively demonstrates that there will be no unreasonable adverse effect on surface water quality, including evidence that:

(a) The applicant will comply with all applicable stormwater management standards of Chapter 500 of the Department's rules, if the proposed facility is in the direct watershed of "waterbodies most at risk from new development".

(b) A waste water discharge license has been obtained or will be obtained, if required by 38 M.R.S.A. section 413.

I. No Unreasonable Adverse Effect On Other Natural Resources

(1) Standards. The solid waste facility may not have an unreasonably adverse effect on other natural resources in the municipality or in neighboring municipalities. The proposed solid waste facility:

(a) Must conform to the standards of the Natural Resource Protection Act, 38 M.R.S.A sections 480-A to 480-Z, if proposed to be located in, on, over, or adjacent to a protected natural resource, and

(b) Must be permitted by the federal government for any activities that require a Federal Wetlands permit.

(2) Submissions. An application must include the following information, when appropriate:

(a) Evidence that a Natural Resource Protection Act application has been submitted or will be obtained when required under that Act (38 M.R.S.A. sections 480-A to 480-Z).

(b) Complete information as to whether a Federal Wetlands permit is required and on whether a Federal Wetlands permit application has been submitted.

J. Soil Types That Are Suitable and Will Not Cause Unreasonable Erosion

(1) Standards. The solid waste facility must be located on soils suitable for the nature of the undertaking and the facility must not cause unreasonable sedimentation or erosion of soil. To meet this requirement:

(a) The soils on the facility site must be suitable for the proposed solid waste facility.

(b) The design and implementation of erosion control measures must be conducted in accordance with "The Maine Erosion and Sediment Control Handbook for Construction: Best Management Practices," prepared by the Cumberland County Soil & Water Conservation District and Maine Department of Environmental Protection (March 1991), unless other measures are approved by the Department.

(i) sediment caused by accelerated soil erosion must be minimized from runoff water before it leaves the proposed solid waste facility site or enters a protected natural resource. Suitable erosion control measures must be in place prior to any disturbance of soil.

(ii) any temporary or permanent structure designed and constructed for the conveyance of water around, through, or from the solid waste facility must be designed to limit the water flow to a non-erosive velocity.

(iii) all earth changes must be designed, constructed, and completed so that the exposed area of any disturbed land is minimized and is limited to the shortest reasonable period of time possible given the construction requirements. Permanent soil erosion control measures for all slopes, channels, ditches, and disturbed land area must be completed as specified by the Department, after final grading has been completed. Seeding must occur within 15 calendar days of final grading unless otherwise approved by the Department because of seasonal conditions. When it is not possible or practical to immediately and permanently stabilize disturbed land, temporary stabilization measures will be implemented as approved by the Department. In sensitive watersheds or on highly erodible soils or slopes of 20 percent or greater, the Department may require a more restrictive schedule for temporary and permanent stabilization of soil.

(iv) when vegetative cover is to be established as a temporary or permanent erosion control measure:

a. plant species and seeding rates must take into account soil, slope, climate, duration and use of the vegetative cover.

b. mulch must be provided at rates appropriate to ensure a minimum of soil and seed loss until vegetative cover is established.

c. reseeding must be done within a reasonable period of time if permanent vegetation is not established.

(v) all development plans must utilize existing topography and natural surroundings to the fullest extent possible.

(2) Submissions.

(a) An application must include a comprehensive erosion and sedimentation control plan that includes the following information:

(i) a statement of whether the proposed facility or activity is in the direct watershed of waterbodies most at risk from new development. For the purposes of this submission requirement, the Department will consider the direct watershed of a waterbody to be the land area that drains, via overland flow, natural or manmade drainage systems, other waterbodies or wetlands to that waterbody.

(ii) a description and location of all proposed construction activities that may result in soil disturbance,

(iii) a description and location of all existing and proposed on-site drainage,

(iv) the timing and sequence of all proposed land disturbances,

(v) a description and location of all proposed temporary and permanent erosion and sedimentation control measures, including the timing and sequence of completion and an indication of the suitability of the proposed measures to address the problems that are expected,

(vi) calculations for erosion control measures in accordance with best management practices, and

(vii) a proposed program for the maintenance of all erosion and sedimentation control facilities that will remain after construction is completed.

(b) Where applicable, the application must include a report showing that the soils are suitable to the undertaking including:

(i) test pit and soil boring information, and

(ii) an evaluation by an engineer, soil scientist, or other qualified individual.

K. No Unreasonable Risk That a Discharge to a Significant Ground Water Aquifer Will Occur

(1) Standards. The proposed solid waste facility may not pose an unreasonable risk that a discharge to a significant ground water aquifer will occur. Additionally, a solid waste disposal facility:

(a) May not overlie any significant sand and gravel aquifers;

(b) May not pose an unreasonable threat to the quality of a significant sand and gravel aquifer; and

(c) May not pose an unreasonable threat to the quality of an underlying fractured bedrock aquifer.

(2) Submissions. An application must contain the information that is required under the appropriate chapter of these rules for the particular type of facility involved.

L. Adequate Provision for Utilities and No Unreasonable Adverse Effect on Existing or Proposed Utilities.

(1) Standards. The applicant shall provide for adequate utilities and the proposed solid waste facility may not have an unreasonable adverse effect on existing or proposed utilities in the municipality or area served by those utilities.

(a) There must be adequate water supplies for the solid waste facility.

(b) Appropriate sanitary waste water disposal must exist for the solid waste facility.

(2) Submissions. An application must include evidence that affirmatively demonstrates that the applicant has made adequate provision for utilities, including water supplies, sewerage facilities and solid waste disposal, and that the proposed solid waste facility will not have an unreasonable adverse effect on existing or proposed utilities in the municipality or areas served by those utilities, including the following information, when appropriate:

(a) Verification that the facility will be served by the appropriate utilities.

(b) Evidence that a sufficient and healthful water supply will be provided.

(c) The identification of all aspects of the proposed solid waste facility that require access to or use of utilities, along with the provisions that have been made to use those utilities and to comply with any requirements and provisions of the utility.

M. Not Unreasonably Cause or Increase Flooding

(1) Standards. A solid waste facility may not unreasonably cause or increase flooding on-site or on adjacent properties nor create an unreasonable flood hazard to a structure.

(a) Except for an agronomic utilization site, a solid waste facility may not be located in a 100 year flood plain or restrict the flow of a 100 year flood.

(b) A solid waste facility must include a stormwater management system that controls run-on and run-off, and infiltrates, detains, or retains water falling on the facility site during a storm of an intensity up to and including a 25-year, 24-hour storm, such that the rate of flow of stormwater from the facility after construction does not exceed the rate of outflow of stormwater from the facility site prior to the construction of the facility.

(2) Submissions. An application must include evidence that affirmatively demonstrates that the facility will not unreasonably cause or increase flooding of the facility site or adjacent properties, will not create an unreasonable flood hazard, and will have no unreasonable effect on run-on, run-off, and/or infiltration relationships, including information such as the following, when appropriate:

(a) The most recent U.S. Geological Survey, Army Corps of Engineers or Federal Flood Insurance Administration 100-year frequency flood plain map of the area, if applicable.

(b) A narrative describing how the facility site is oriented within the watershed, identifying downstream ponds, lakes, and mapped wetland areas, and addressing the effects of facility site runoff on the watershed and nearby properties. The narrative shall also identify areas, buildings and facilities that historically flood or which may be affected by the facility site run-off and shall discuss the assumptions used in determining run-off curve numbers, time of concentration and travel time calculations for each drainage sub-area.

(c) Pre-construction drainage study plans showing existing contours, and all topographic features including but not limited to: buildings and facilities, natural and man-made drainage ways, streams, channels, culverts, cover type, elevation benchmarks and datum, catch basins, roads, drainage easements, hydrologic flow lines, hydrologic soil groups, and watershed boundaries (on and off site).

(d) Post-construction or phased drainage study plans showing final or phased contours, all relevant existing contours, and all proposed topographic and other features including but not limited to: buildings and other facilities, natural and manmade drainage ways, streams, channels, culverts, catch basins, roads, drainage easements, cover type, elevation bench marks and datum, hydrologic flow lines, hydrologic soil groups, and final or phased watershed boundaries (on and off site).

(e) Pre-construction stormwater calculations for 25-year, 24-hour storms including runoff curve numbers, time of concentration, and travel times for each sub-area.

(f) Post-construction or phased stormwater calculations for 25-year, 24-hour storms including: run-on controls, runoff curve numbers, time of concentration, and travel times for each sub-area along with calculations for routing the stormwater through detention areas and detention basins.

(g) Basin storage values and sizing calculations, including stage-storage curves and outlet velocities for each detention basin.

(h) Outlet and spillway detail and sizing calculations for each detention basin.

(i) Detail sheets showing plan and cross sectional views of the detention basins, outlet structures, emergency overflow structures, and associated riprapped areas. Basin cross sections must show and identify the water level elevations for the 25-year, 24-hour storms.

APPENDIX B: CARBON TO NITROGEN RATIOS (C:N) FOR RAW RESIDUALS COMMONLY COMPOSTED IN THE STATE OF MAINE

The following table is provided for guidance and includes many of the raw residuals that, to date, have been composted within the State of Maine. In addition to carbon to nitrogen ratio (C:N) values, percent nitrogen (% N) has been included to better characterize each residual. As a general rule, the lower the C:N the higher the putresibility of the residual and the greater the chance of producing nuisance odors. All of the following information was obtained from:

Rynk, R, ed. 1992. On-farm composting handbook. Northeast Regional Agricultural Engineering Service, Ithaca, New York. NRAES-54:106-113.

Residual	C:N	Range	%N	Range	Type
Mussel	2.2	--	3.6	--	IC
Blood	3.3	(3-3.5)	13.5	(13-14)	IC
Shrimp	3.4	--	9.5	--	IC
Fish	3.6	(2.6-5.0))	10.6	(6.5-14.2)	IC
Crab/Lobster	4.9	(4.0-5.4)	6.1	(4.6-8.2)	IC
Poultry Carcasses	5	--	2.4	--	IC
Hen Manure	6	(3-10)	8	(4-10)	N/A
Sewage Sludge	11	(5-16)	4.5	(2-6.9)	II
Food By-product	15	(14-16)	2.4	(1.9-2.9)	IB
Sea weed	17	(5-27)	1.9	(1.2-3.0)	IC/IB
Grass Clippings	17	(9-25)	3.4	(2.0-6.0)	IC/IB
Cull Potatoes	18	--	--	--	IB
Vegetable Produce	19	--	3.3	--	IB
Cow Manure	19	11-30	2.4	1.5-4.2	N/A
Hay	24	(15-32)	2.1	(0.7-3.6)	IB/IA
Horse Bedding	36	(22-50)	1.4	(1.4-2.3)	IB/IA
Fruit By-product	40	(20-49)	1.4	(0.9-2.6)	IB/IA

Maine

Corn Silage	41	(38-43)	1.3	(1.2-1.4)	IA
Apple Pomace	48	--	1.1	--	IA
Leaves	54	(40-80)	0.9	(0.5-1.3)	IA
Sawdust	442	(200-750)	0.24	(0.06-0.14)	IA
Newsprint	--	398-852	--	(0.06-0.14)	IA
Corrugated Cardboard	563	--	0.01	--	IA
Wood Chips	600	(451-1,313)		(0.06-0.23)	IA

Maryland

26.04.07.23

.23 Processing Facilities.

A. Permits.

(1) Permits Required. Unless excepted under the provisions of § A(2), a person may neither construct or operate a processing facility, nor materially alter or extend one, without obtaining a permit from the Approving Authority before any work, including site preparation, is begun.

(2) Exceptions. Permits issued under this regulation are not required for processing facilities constructed and operated for private use located at schools, apartment houses, industries, hospitals, commercial establishments, individual residences, farms, and similar locations.

B. Application for Permit.

(1) Requirement for Application. An application for a permit under the provisions of § A(1) shall be submitted to the Approving Authority. The application shall consist of a letter briefly describing the project for which approval is requested. If there is any reason for summary disapproval of the proposed project, the applicant shall be so notified in writing and advised on the proper appeal procedures. When practicable, within 60 days of receipt of a complete application, the applicant shall be:

(a) Informed of any additional information which the Approving Authority may require; or

(b) Advised to proceed with the preparation of engineering plans and specifications.

(2) Engineering Plans and Specifications. Eight complete sets of plans and engineering reports covering the proposed project, prepared, signed, and bearing the seal of a registered professional engineer shall be submitted to the Approving Authority. The information contained in these plans and reports shall include:

(a) A map showing the specific location land use and zoning within 1/4 mile of the boundaries of the proposed facility;

(b) Drawings of buildings and other structures showing type of construction, layout, and dimensions for unloading, storage, and processing areas;

(c) A site plan designating the property boundaries and existing and proposed structures and roads;

(d) A descriptive statement of processes to be used;

(e) A description of:

(i) Major items of equipment including manufacturer, type, model, capacity, and number of units,

(ii) Types and anticipated quantities of solid waste to be accepted,

(iii) Types of solid waste not to be accepted,

(iv) Areas of population to be served by the facility,

(v) Measures to be taken to prevent or control ground or surface water pollution, explosions, and odors,

(vi) Methods of treating and disposing of liquid waste resulting from the operation,

(vii) Employee safety and sanitary facilities including the location of on-site sewage disposal systems;

(f) An operational and maintenance manual which identifies the operation in detail, including:

(i) Periodic cleaning and maintenance,

(ii) The manner in which unacceptable wastes which may be delivered to the processing facility will be identified, segregated, and handled before final disposal, and

(iii) Other contingency plans.

C. Application Review. The applications submitted shall be distributed as specified in Regulation .06C(1)(a)--(g), (j), and (k). A

person receiving an application shall be asked to submit any comments within 30 days of receipt of the application.

D. General Requirements and Operating Procedures. The following are established as minimum requirements and operating procedures for a processing facility:

(1) Buildings.

(a) With the exception of the operations listed in § D(1)(b), processing activities involving the unloading, separation, reduction, or alteration shall be conducted in an enclosed building.

(b) The following activities may be conducted outdoors in areas and in a manner approved by the Department:

(i) Composting or co-composting;

(ii) Separation or storage, or both, of white goods;

(iii) Tire storage or processing; and

(iv) Other activities authorized by the Approving Authority.

(2) Location. Location of the facility shall be adjacent to access roads which are:

(a) Paved or surfaced; and

(b) Provided with a base capable of withstanding anticipated load limits.

(3) Access Roads. An all-weather access road negotiable by loaded collection vehicles or other vehicle transportation shall be provided from the entrance gate of the facility to loading and unloading areas.

(4) Environmental Protection. The facility shall be operated in a manner which prevents air, land, or water pollution, public health hazards, or nuisances. Dust resulting from the operation shall be controlled at all times. All solid waste shall be confined to the unloading area. Solid waste may not be stored or otherwise deposited adjacent to the facility except in approved containers.

(5) Supervision. Operation and management shall be under the direct supervision and control of an individual qualified in operating procedures by training, education, or experience.

(6) Operational Plan. The facility shall have a written emergency operational plan to provide for an alternative waste handling system when the facility is inoperative. This plan shall delineate the procedures to follow in case of equipment breakdown which may require stand-by equipment, extension of operating hours, or diversion of solid waste to other facilities.

(7) Cleanliness and Sanitation.

(a) Facilities shall be maintained in a clean and sanitary condition.

(b) Plumbing shall be properly maintained and floors shall be well drained and free from standing water.

(c) Sanitary facilities shall be provided for employees and shall be kept clean and in good repair.

(d) Solid waste not actually being processed shall be confined to the unloading area.

(e) Accumulations of solid waste shall be controlled in a manner as to minimize odors and nuisances and to prevent infestation by insects, rodents, or other vectors.

(8) Fire Control. Appropriate on-site fire control equipment shall be provided, and additional fire-fighting equipment shall be made available in emergencies through prior arrangements with the local fire department.

(9) Information Posted. A statement of the days and hours of operation shall be posted at the entrance of the facility, and access shall be limited to those times when authorized personnel are on duty.

(10) Equipment. Macerators, hammer mills, and grinders shall be cleanable and shall be equipped with drains which connect to a sanitary sewer system or equivalent.

(11) Tipping, Loading, and Unloading Areas. Waste tipping, loading, and unloading areas shall be constructed of impervious material which is readily cleanable. Drains shall be connected to a sanitary sewer system or other permitted treatment facility.

E. Requirements for Composting Plants. The following are additional requirements for composting plants:

(1) Residue. The product resulting from composting operations and offered for sale or distribution shall be non-pathogenic, free of offensive odors, biologically and chemically stable, and free of injurious components or particles.

(2) Cleanliness and Sanitation. Solid waste intended for composting shall be maintained in a condition free of insects, rodents, and offensive odors before, during, and after the composting operation. The plant shall be maintained in a clean and sanitary condition. Insects, rodents, or other vectors shall be controlled by appropriate measures.

F. Periodic Reports to Approving Authority.

(1) An annual written report shall be submitted to the Approving Authority concerning the status of the processing facility for each year the facility is in use. This report shall be submitted as specified in the permit and shall include the:

(a) Quantity of solid waste received per month during each of the preceding 12 months. Quantities shall be given in tons.

(b) Quantities and disposition of processed material and residues from processing facilities.

(2) The Approving Authority may impose other reporting requirements considered necessary.

G. Consistency with the County Solid Waste Management Plan. Before issuance of the permit the applicant shall provide:

(1) A statement from the appropriate local government agency concerning the consistency of the proposed facility with the approved county comprehensive solid waste management plan. If the local government fails to provide a response within 60 days of receipt of a request for a statement, a copy of the certified letter to the county requesting a statement shall be deemed to satisfy this requirement.

(2) Proof that the facility is consistent with the approved county comprehensive solid waste management plan.

Maryland

26.04.09.05

.05 Application for Individual Permits.

A. Requirements for Application.

(1) An applicant for a natural wood waste recycling facility shall submit a permit application to the Department.

(2) The application shall include:

(a) A description of the project for which approval is requested, including how the requirements in Regulation .07 of this chapter shall be met;

(b) A description of all other applicable permits required under local, State, or federal statutes;

(c) A marketing plan and strategy for the product or products produced at the facility; and

(d) Copies of plans and engineering reports as described in §B of this regulation.

(3) If there is any reason for summary disapproval of the proposed project, the Department shall notify the applicant in writing and advise the applicant of the proper appeal procedures.

(4) The applicant shall submit 11 complete sets of the application to the Department.

B. Plans and Specifications.

(1) The applicant shall submit plans and engineering reports covering the proposed project to the Department as part of the application.

(2) The information contained in these plans and reports shall include:

(a) A map showing the specific location and land use within 1/2 mile of the boundaries of the proposed facility;

(b) Drawings of on-site buildings and other facility structures showing type of construction, layout, and dimensions;

(c) A topographic map of the site that identifies slopes greater than 25 percent, floodplains, wetlands, and aquifer recharge areas;

(d) Drawings showing unloading, product storage, equipment storage, and processing areas;

(e) A site plan designating the property boundaries, existing and proposed facility structures, and roads;

(f) A descriptive statement of processes and technology to be used;

(g) A description of the following:

(i) Major items of equipment including manufacturer, type, model, capacity, and number of units,

(ii) Types and anticipated quantities of natural wood waste to be accepted and processed daily,

(iii) Types of natural wood waste that are not accepted,

(iv) Means by which quantities of materials entering, processed, and leaving the facility are determined,

(v) Geographic areas to be served by the facility,

(vi) Measures that shall be taken to prevent or control ground or surface water pollution, explosions, odors, noise, dust, litter, vectors, and other nuisances,

(vii) Methods of controlling runoff from unloading, storage, and processing areas,

(viii) A description of soil types and depth,

(ix) Employee safety and sanitary facilities including the location of on-site sewage disposal and water supply systems,

(x) Number and types of employees, and

(xi) Hours of operation;

(h) An operations and maintenance manual which identifies the operation in detail, including:

(i) Periodic cleaning and maintenance,

(ii) The methods for handling unacceptable wastes delivered to the processing facility, including how they shall be identified, segregated, and handled before final disposal,

(iii) Employee safety training requirements,

(iv) Procedures for recording and reporting incidents of noncompliance with this chapter,

(v) Methods used to prevent mud, soil, and debris from the facility from entering public roadways, and

(vi) Other contingency plans;

(i) An erosion and sediment control plan that meets the requirements of COMAR 26.09.01 and has been approved by the local soil conservation district or appropriate approving authority;

(j) A grading permit as required by the local jurisdiction;

(k) A description of site security and access control;

(l) An approved and bonded stormwater management plan as required by the local jurisdiction; and

(m) An emergency preparedness manual.

C. Term of License. A natural wood waste recycling facility license shall be issued for a term of 5 years.

Maryland

26.04.09.07

.07 General Requirements and Operating Procedures.

A. Buildings, Screens, or Buffers. In order to ensure compliance with Regulation .03A(1) of this chapter, the Department may require that the natural wood waste recycling facility conduct processing activities involving unloading, separation, reduction, or alteration in one or more of the following ways:

(1) In an enclosed building;

(2) Screened from adjoining properties; or

(3) Buffered from adjoining properties at a distance determined by the Department.

B. Processing Conditions.

(1) Processing areas shall be located at least 50 feet from any property line.

(2) Markets for the raw material or products produced by the natural wood waste recycling facility shall be identified and available before processing.

(3) Aerobic conditions shall be maintained and controlled during composting of vegetative materials.

C. Access Roads. A natural wood waste recycling facility shall have an all-weather access road negotiable by emergency vehicles, loaded delivery vehicles, or other vehicle transportation from the entrance gate of the facility to loading and unloading areas.

D. Environmental Protection. A natural wood waste recycling facility shall control dust resulting from the operation at all times. The facility shall confine all wood waste to approved unloading, processing, or storage areas at the facility.

E. Supervision. A natural wood waste recycling facility shall operate under the direct supervision and control of a responsible individual. The individual supervising shall be present at all times during the operation of the facility.

F. Emergency Preparedness Manual.

(1) The facility shall have a written emergency preparedness manual that is:

(a) Maintained at the facility at all times; and

(b) Submitted to the Department with its natural wood waste recycling facility permit application or NOI to operate under the conditions of the general permit.

(2) Once the manual is accepted by the Department, the manual becomes part of the permit.

(3) The natural wood waste recycling facility shall update its emergency preparedness manual:

(a) If a change in the operations of the natural wood waste recycling facility occurs;

(b) If the Department requires a change; or

(c) If the Department requests an update.

(4) This emergency preparedness manual shall, at a minimum, contain:

(a) A list of names and telephone numbers of the persons to contact in the event of a fire, flood, or other emergency involving the facility;

(b) A list of emergency response equipment present at the facility or available for use at the facility, the location of the equipment, and how the equipment shall be used in the event of a fire or other emergency;

(c) The procedures facility personnel shall follow from discovery of an emergency until the situation is corrected, including the measures to minimize the occurrence, recurrence, or spread of fires, explosions, and releases;

(d) The location of known water supplies, fire hydrants, dry chemical extinguishers, or other materials that may be used for fire fighting purposes;

(e) Provision for reporting emergency situations to the Department without delay; and

(f) Provision for familiarizing all employees with the requirements of the emergency preparedness manual.

(5) Any changes shall be reported in writing to the Department within 30 days of occurrence.

G. Cleanliness and Sanitation.

(1) A natural wood waste recycling facility shall maintain clean and sanitary conditions on the site.

(2) A natural wood waste recycling facility shall confine natural wood waste to designated storage areas when not being processed.

(3) A natural wood waste recycling facility shall control accumulations of natural wood waste in a manner that minimizes odors and nuisances and prevents infestation by insects, rodents, or other vectors.

H. Fire Control. A natural wood waste recycling facility shall store natural wood wastes indoors or outdoors in accordance with the requirements of the State Fire Marshal's Office. The permittee shall provide appropriate on-site fire control equipment in addition to additional fire-fighting equipment made available through prior arrangements with the local fire department.

I. Information Posted. A natural wood waste recycling facility shall post a statement of the days and hours of operation at the entrance of the facility.

J. Personnel and Equipment. A natural wood waste recycling facility shall maintain adequate personnel and equipment on site at all times to ensure the proper operation and prompt attention to correct problems associated with the construction and maintenance of the facility.

K. Access Control. A natural wood waste recycling facility shall control access to the facility at all times and adequately close entrances when the site is not in operation.

Authority: Agriculture Article, Title 6, Subtitle 2, Annotated Code of Maryland

.01 Definitions.

A. In this chapter, the following terms have the meanings indicated.

B. Terms Defined.

(1) "Agricultural land" means land cultivated for the production of crops or used for raising livestock.

(2) "Agricultural operation" means any farming operation devoted to the production for sale of crops or animals, including, but not limited to, fruits, vegetables, meat, poultry and dairy products, nuts, tobacco, aquaculture, nursery and floral products, and trees.

(3) "Brand" means the term, design, trademark, or other specific designation under which a compost product is distributed in the State.

(4) "Certified operator" means an owner, operator, or employee of a composting facility who is certified by the Secretary under this chapter.

(5) "Compost" means a stabilized organic product produced by the controlled aerobic decomposition process in such a manner that the product may be handled, stored, and applied to the land or used as a soil conditioner in an environmentally acceptable manner without adversely affecting plant growth.

(6) "Compostable" means any biological material capable of being aerobically decomposed into compost.

(7) "Composting" is the aerobic degradation of organic matter to make compost.

(8) "Composting facility" means a facility where solid waste or organic material is processed using composting technology, including:

(a) Physical turning;

(b) Windrowing; and

(c) Aeration or other mechanical handling of organic matter.

(9) "Department" means the Maryland Department of Agriculture.

(10) "Distribute" means to import, manufacture, produce, compound, mix, blend, barter, sell, offer for sale, consign, furnish, provide, or otherwise supply compost as part of a commercial enterprise.

(11) "Industrial sludge" means the accumulated semiliquid suspension, settled, or dried residue of solids deposited as a by-product of an industrial process and which is claimed to have value in promoting plant growth or improving the soil.

(12) "Label" means the display of all written, printed, or graphic matter on the immediate container or a statement accompanying a compost product.

(13) "Labeling" means all written, printed, or graphic matter on or accompanying any compost product or the contents of any advertisement, brochure, poster, or television or radio announcement used in promoting the sale of a compost product.

(14) "Lot" means a definite quantity of a compost product by name, classification, or code designation as registered by the Secretary for distribution.

(15) "Manure" means a solid waste composed of excreta of livestock, and residual materials that have been used for bedding, sanitary, or feeding purposes for animals.

(16) Marginal Land.

(a) "Marginal land" means land where the soil characteristics do not support normal vegetative growth over time.

(b) "Marginal land" includes, but is not limited to, land abandoned due to mineral extraction, strip mine areas, areas where topsoil has been removed, fill areas with poor soil characteristics, or landfills with poor topsoil.

(17) "Mulch" means any material or product, with at least 50 percent of its volume composed of particles 1/2 inch or larger in size, that is distributed for primary use on the soil surface or around plants as decoration or as a protective covering to reduce moisture loss, control weeds, prevent erosion, reduce temperature changes, or similar purposes relating to the soil.

(18) "Organic" means any natural biological substance of plant or animal origin that is capable of microbial degradation.

(19) "Origin" means the original physical source of the compostable material.

(20) "Person" includes the State, any county, municipal corporation, or other political subdivision of the State, or any of their units, or an individual, receiver, trustee, guardian, executor, administrator, fiduciary or representative of any kind, or any partnership, firm, association, public or private corporation, or any other entity unless otherwise provided.

(21) "PFRP" means process to further reduce pathogens, as provided by COMAR 26.04.06.

(22) "Registrant" means a person who registers a compost product pursuant to the provisions of this chapter.

(23) "Secretary" means the Secretary of Agriculture or a designated representative.
(24) "Septage" means the liquid and solid material pumped or removed from chemical toilets, septic tanks, seepage pits, privies, cesspools, or holding tanks when the system is cleaned and maintained.
(25) "Sewage sludge" means the accumulated semiliquid suspension, settled solids, or dried residue of these solids that is deposited from sewage in a wastewater treatment plant, whether or not these solids have undergone treatment.
(26) Soil Conditioner.
(a) "Soil conditioner" means any substance or mixture of substances, except a commercial fertilizer, unmanipulated animal and vegetable manures, agricultural liming material, or gypsum, intended for sale, offered for sale, or sold for:
(i) Manurial, soil enriching, or soil corrective purposes;
(ii) Promoting or stimulating the growth of plants;
(iii) Increasing the productivity of plants;
(iv) Improving the quality of crops; or
(v) Producing any chemical or physical change in the soil.
(b) "Soil conditioner" includes, but is not limited to, materials such as compost, peat, vermiculite, or perlite, that are incorporated into the soil.
(27) Solid Waste.
(a) "Solid waste" means any garbage, refuse, sludge, or liquid from industrial, commercial, mining, or agricultural operations or from community activities.
(b) "Solid waste" includes scrap tires and organic compostable materials, but does not include solid or dissolved material in domestic sewage or in irrigation return flows or compost as defined in this chapter.
(28) "Stabilized compost" means any compost that has ceased active biological decomposition, that is, the temperature of a 4-foot-high, 6-foot-diameter pile of compost may not rise more than 20(C above ambient temperature when the pile is left undisturbed for 72 hours at the composting facility.
(29) "Yard waste" means organic plant waste derived from gardening, landscaping, and tree trimming activities, and includes leaves, garden waste, lawn cuttings, weeds, and tree prunings.
.02 Registration of Compost.
A. Registration.
(1) Except as provided by this regulation, a person shall register with the Department each brand or classification of compost before the compost is sold or distributed within the State.
(2) A person applying for registration shall submit the following information to the Department:
(a) A completed registration application form provided by the Department;
(b) A copy of the product label and any other labeling describing the product; and
(c) The registration fee of $15 for each brand or classification in bulk or in a package of more than 10 pounds, or $30 for each brand or product in a package of 10 pounds or less.
(3) The following compost products are exempt from registration or regulation under this chapter:
(a) Compost produced on a residential property by the owner or tenant for noncommercial use;
(b) Compost or soil conditioner from sewage sludge or septage;
(c) Compost from normal farm operations, not for sale or distribution, for use only on an owner's farm or leased farm as a part of an agronomic, horticultural, or silvicultural operation;
(d) Mulch or fertilizer products made from the processing of compostable materials;
(e) Compost produced by a government agency to be given without charge to a person or for use by that agency on land that the agency owns or manages; or
(f) Any product from solid waste that is composted merely to reduce the product's volume before disposal as a solid waste.
B. Registration Renewal.
(1) By February 1 of each year, a registrant shall renew the registration with the Department for each brand or classification of compost distributed.
(2) A person shall apply for renewal of a registration by submitting the following information to the Department:
(a) A completed registration renewal application form provided by the Department;
(b) A copy of the product label, and any other printed materials describing the product, if the label has been altered or changed since the product was last registered, or if 5 years have passed since the product label was last submitted to the Department with the registration renewal application; and

(c) A registration fee of $15 for each compost brand or classification in bulk or in a package of more than 10 pounds, or $30 for each brand or product in a package of 10 pounds or less.
C. Proof of Claim. The Department may require a registrant to provide proof of any claim made on the registration application, the product label or labeling, or any other claim.
.03 Operator Certification Requirement.
A. Each composting facility regulated by this chapter shall operate under the supervision of a certified operator.
B. Certification. A person shall apply for certification as a composting facility operator by:
(1) Applying to the Department on a departmental form; and
(2) Demonstrating proof of practical and scientific knowledge of composting by passing a written examination given by the Department.
C. Recertification. A person shall apply for renewal by:
(1) Applying to the Department;
(2) Demonstrating satisfactory knowledge of composting by attending during the period of certification at least one training course approved by the Department or by reexamination; and
(3) Complying with all other requirements of this chapter.
D. A composting facility operator certificate is valid for 3 years beginning January 1, or whenever obtained, until December 31 of the third year of certification.
E. Examination.
(1) Each applicant for certification shall pass a written examination given by the Department.
(2) The Department shall give the examination at least twice a year.
(3) The Department may provide either the required training or a list of study materials before any examination is given.
(4) To apply for the examination to be certified as a composting facility operator, an applicant shall file with the Department at least 15 days before any announced examination an application on the form the Department requires.
.04 Composting Facility Operator Requirements.
A. A composting facility certified operator is responsible for complying with the requirements of this regulation when operating a composting facility.
B. For a composting facility receiving only agricultural or yard waste the following is required:
(1) Stabilized compost, or any compost product to be distributed from the facility, shall be tested by the operator each quarter, or once every 20,000 tons of compost, whichever is more frequent, for each parameter listed in Table 1 of Regulation .11 of this chapter, using a method acceptable to the Department;
(2) If the compost test results are within the testing limits set forth in Regulation .05A of this chapter during the first year of operation, then the operator may test only once a year, provided the test results remain within the limits set forth in Regulation .05A of this chapter;
(3) An alternative testing schedule may be approved by the Secretary, provided the operator demonstrates that the alternative testing schedule will provide at least equivalent protection to the public and to the environment;
(4) The operator shall make test results available to the Department for inspection during the facility's normal hours of operation.
C. For a composting facility receiving solid waste other than only agricultural or yard waste the following is required:
(1) The certified operator of a solid waste composting facility shall develop a quality assurance or quality control plan approved by the Department that describes monitoring, sampling, and analysis plans for testing the composting process and product to be distributed;
(2) The Department shall determine and the operator shall follow an appropriate monitoring and sampling schedule for the 15-month initial start-up period for any new facility;
(3) Using information gained during the start-up period, a monitoring and sampling schedule for ongoing operations shall be developed by the operator with the Department, based on statistical methods for quality assurance.
D. Samples of compost to be distributed shall be obtained by the operator in accordance with a plan approved by the Department. Samples of the compost produced at the facility shall be analyzed by the operator for each parameter listed in Table 1 of Regulation .11 of this chapter using a method acceptable to the Department.
E. Results of laboratory analysis for each parameter specified in Table 1 of Regulation .11 of this chapter shall be recorded by the operator and kept for 2 years at the facility and shall be available to the Department, upon request.

F. The Department may decrease or increase the parameters to be analyzed, or the frequency of analysis, based on monitoring data, changes in the waste stream or processing, or the potential presence of toxic substances.
G. The Secretary may conduct periodic sampling, without charge, and testing of any compost product to be distributed to determine if it complies with the requirements of this chapter.
H. The Secretary may establish additional limits on any classification of compost or any specific product if it is found that the compost contains a chemical or physical component that can cause unreasonable adverse effects to humans, animals, plants, or the environment.
.05 Compost Classification.
A. A compost product is classified as a General Use, Limited Use, or Restricted Use compost as shown in §§B—D of this regulation.
B. General Use Compost.
(1) General Use compost may not exceed the following specifications:

Parameter	Parameter Limit All limits apply to product leaving composting facility.
(a) pH (range)	6.0—8.0
(b) Heavy metals (maximum)	
(i) Arsenic	41 mg/kg dry wt.
(ii) Cadmium	39 mg/kg dry wt.
(iii) Chromium	1200 mg/kg dry wt.
(iv) Copper	1500 mg/kg dry wt.
(v) Lead	300 mg/kg dry wt.
(vi) Mercury	17 mg/kg dry wt.
(vii) Molybdenum	18 mg/kg dry wt.
(viii) Nickel	420 mg/kg dry wt.
(ix) Selenium	36 mg/kg dry wt.
(x) Zinc	2800 mg/kg dry wt.
(c) PCBs	5 ppm
(d) Man-made inerts (maximum) >4mm, <13mm	2 percent dry wt.
(e) Film plastic >4mm	2 percent dry wt.
(f) Process to further reduce pathogens (required for compost from municipal solid waste or manure)	pass

(2) A General Use compost:
(a) Shall pass through a 12mm (1/2 inch) screen;
(b) Shall be stabilized;
(c) May not have an objectionable odor; and
(d) May be distributed as a soil conditioner for use by the general public or for any use allowed by this chapter.
C. Limited Use Compost.
(1) A Limited Use compost may not exceed the following specifications:

Parameter	Parameter Limit All limits apply to product leaving composting facility.
(a) pH (range)	6.0—8.0
(b) Heavy metals (maximum)	
(i) Arsenic	41 mg/kg dry wt.
(ii) Cadmium	39 mg/kg dry wt.
(iii) Chromium	1200 mg/kg dry wt.
(iv) Copper	1500 mg/kg dry wt.
(v) Lead	300 mg/kg dry wt.
(vi) Mercury	17 mg/kg dry wt.
(vii) Molybdenum	18 mg/kg dry wt.

(viii) Nickel	420 mg/kg dry wt.
(ix) Selenium	36 mg/kg dry wt.
(x) Zinc	2800 mg/kg dry wt.
(c) PCBs	10 ppm
(d) Man-made inerts (maximum) >4mm	4 percent dry wt.
(e) Film plastic >4mm	2 percent dry wt.
(f) Process to further reduce pathogens (required for compost from municipal solid waste or manure)	pass

(2) A Limited Use compost:
(a) Shall pass through an 18mm (3/4 inch) screen;
(b) Shall be stabilized;
(c) May not have an objectionable odor; and
(d) May only be distributed for use by a commercial, agricultural, institutional, or governmental operation, or for restricted use as provided by this chapter.
D. Restricted Use Compost:
(1) A Restricted Use compost may not exceed the indicated maximum level for any heavy metal or trace element, as follows:

(a) Arsenic	75 mg/kg dry wt.
(b) Cadmium	85 mg/kg dry wt.
(c) Chromium	3000 mg/kg dry wt.
(d) Copper	4300 mg/kg dry wt.
(e) Lead	840 mg/kg dry wt.
(f) Mercury	57 mg/kg dry wt.
(g) Molybdenum	75 mg/kg dry wt.
(h) Nickel	420 mg/kg dry wt.
(i) Selenium	100 mg/kg dry wt.
(j) Zinc	7500 mg/kg dry wt.

(2) A Restricted Use compost:
(a) May not be a hazardous waste, as defined in COMAR 26.13.02.03;
(b) May not be stockpiled or disposed of unless authorized by the Maryland Department of the Environment;
(c) May not be distributed or sold to the general public;
(d) Is restricted to distribution for use as a final, intermediate, or alternate daily landfill cover, as provided by COMAR 26.04.07, or on marginal land or in land reclamation efforts if applied at rates not to exceed limits established in Table 2 of Regulation .12 of this chapter; and
(e) Includes any compost exceeding any parameter limit for Limited Use compost, as provided in Regulation .05C of this chapter, or any compost designated by the registrant as Restricted Use classification.
.06 Compost Labeling.
A. A person who manufactures or distributes a package or container of compost subject to this chapter is responsible for labeling the package or container with the following information:
(1) Net weight or volume;
(2) Brand under which the compost is distributed;
(3) Classification of compost;
(4) Manufacturer's name and complete address; and
(5) Origin.
B. A person who manufactures or distributes for bulk sale any compost subject to this chapter shall have a label or have labeling with information required in §A of this regulation. A manufacturer or distributor shall make any label or labeling information available to the Department, upon request.
C. Each lot of bulk compost offered for sale or distribution by a person shall be identified by that person by a legible sign containing at least the following:
(1) Brand name; and
(2) Classification of compost.

D. A person who manufactures a compost produced from materials containing an industrial sludge is responsible for labeling the product indicating the origin of the industrial sludge.
E. A person who distributes a compost is responsible for the label or labeling or providing on a written invoice or shipping statement, if the compost is offered for bulk distribution, information indicating recommended uses, application rates, and use restrictions, if any, for the compost product, including information stating that:
(1) Compost classified as General Use may be used by the general public as a mulch, soil conditioner, or topsoil substitute;
(2) Compost classified as Limited Use is limited for use as follows:
(a) Only for use by a commercial, agricultural, institutional, or governmental operation,
(b) Only for use where contact by the general public is unlikely,
(c) On agricultural land when repeated applications occur to a site, the total amount of any heavy metal applied per acre per year to that site may not exceed 1/10 the maximum cumulative loading for that metal listed in Regulation .12 of this chapter, and
(d) The total amount of any heavy metal applied per acre cumulatively to a site may not exceed the maximum amount for that metal listed in Table 2 of Regulation .12 of this chapter;
(3) Compost classified as Restricted Use is restricted for use as follows:
(a) Only for use as a landfill cover, on marginal land or in land reclamation efforts, provided that the maximum total amount of each heavy metal that is applied does not exceed the cumulative loading limit for that metal as listed in Regulation .12 of this chapter,
(b) Only for use where there will be no contact by the general public with the compost, and
(c) Not for use by the general public.
.07 Compost Tonnage Reporting.
A. Tonnage Reporting Statement.
(1) The registrant of each compost product shall submit to the Department:
(a) A semiannual written statement of the tonnage for each brand or classification of compost distributed in this State; and
(b) An inspection fee of 25 cents for each ton distributed.
(2) This statement and inspection fee shall include each sale for the periods of January 1 through June 30 and July 1 through December 31 of each year.
B. Failure to File Statement or Pay Fee. If a registrant fails to file a tonnage report and the inspection fee is not paid within 31 days after the end of the semiannual period, a collection fee amounting to 10 percent of the amount, or a minimum of $10, may be assessed against the registrant. The amount of fees due constitutes a debt and may become the basis of a judgment against the registrant.
.08 Record-Keeping Requirements.
A. A registrant or facility operator who distributes compost shall maintain complete records for 2 years for each lot of compost distributed.
B. Records shall have the following information:
(1) Source, type, and quantity of compostable received;
(2) Quantity and type of waste or compostable processed into compost;
(3) Quantity and classification of compost produced, by product classification;
(4) Quantity and classification of compost distributed, by product classification; and
(5) Analytical results of compost testing.
C. A registrant who distributes in bulk a Limited Use or Restricted Use compost product for application to soil on a site where repeated use of any compost is expected to occur shall:
(1) Maintain for 10 years application records for each lot of compost product applied to that site; and
(2) Document cumulative loading of each heavy metal listed in Regulation .12 of this chapter applied to that site.
.09 Inspection Procedures.
A. The Department or a designee may examine records, and may inspect and sample without charge any compost or compost product of any producer or distributor to determine if the records or compost complies with the requirements of this chapter.
B. A sample or lot found by the Department not to be in conformity with the regulations in this chapter or with the Maryland Commercial Fertilizer Law shall be subject to a penalty or a stop-sale order. The Department shall issue a written notice of the violation.

C. The Department may inspect any load of compostable material or compost for hazardous or noncompostable material.

.10 Refusal or Cancellation of Registration.

The Secretary may refuse to register or may revoke any registration for a brand or classification of compost, or the certificate of a person, that does not comply with the requirements of this chapter or with the requirements of the Maryland Commercial Fertilizer Law.

.11 Table 1. Compost Quality Parameters.

Parameter	Unit
A. pH	Standard units
B. Regulated trace metals or inorganic pollutants:	
(1) Arsenic (As)	mg/kg dry wt.
(2) Cadmium (Cd)	mg/kg dry wt.
(3) Chromium (Cr)	mg/kg dry wt.
(4) Copper (Cu)	mg/kg dry wt.
(5) Lead (Pb)	mg/kg dry wt.
(6) Mercury (Hg)	mg/kg dry wt.
(7) Molybdenum (Mo)	mg/kg dry wt.
(8) Nickel (Ni)	mg/kg dry wt.
(9) Selenium (Se)	mg/kg dry wt.
(10) Zinc (Zn)	mg/kg dry wt.
C. Polychlorinated biphenyls (PCBs)	mg/kg dry wt.
D. Man-made inerts >4mm, 13mm	percent dry wt.
E. Film plastic >4mm	percent dry wt.

.12 Table 2. Compost Cumulative Loading Limits (Maximum).

Regulated Heavy Metal	Cumulative Loading a,b
A. Arsenic	37 lbs/acre
B. Cadmium	35 lbs/acre
C. Chromium	2,680 lbs/acres
D. Copper	1,340 lbs/acre
E. Lead	270 lbs/acre
F. Mercury	15 lbs/acre
G. Molybdenum	16 lbs/acre
H. Nickel	375 lbs/acre
I. Selenium	90 lbs/acre
J. Zinc	2,500 lbs/acre

(a) This is the maximum sum of all prior loadings to the soil.

(b) Compost shall have a pH greater than or equal to 5.5.

Site Assignment Regulations for Solid Waste Facilities 310 CMR 16.00
http://www.mass.gov/dep/service/regulations/310cmr16.pdf
Regulatory categories for compost facilities as of June 8, 2001.

Conditionally exempt 16.05(4)

1. Backyard Composting
2. Leaf Composting Operations. Transfer or compost less than 50,000 cy or 10,000 tons clean leaves and yard waste containing no greater than 25% grass clippings by volume.
3. Agricultural Waste Composting. For agricultural wastes, located on a farm engaged in "agriculture" or "farming" as defined in M.G.L. c. 128, s. 1A. Register with DFA. May also use:
    a. Leaf and yard material
    b. Wood waste
    c. Clean newspaper or cardboard
    d. Clean shell and bone
    e. Non-ag sources of manures and animal bedding materials
    f. Not more than 10 tons or 20 cubic yards per day of vegetative materials
    g. Not more than 5 tons or 10 cubic yards per day of food materials
4. Composting on Industrial, Commercial or Institutional Sites. Located at an industrial, commercial or institutional sites or zoos.
    - Composts less than 4 cubic yards or 2 tons per week of vegetative material or food material or animal manures (generated on-site).
    - at least 30 days prior to commencement of operations, operator notifies the Department and the board of health.

Determination Of Need (DON) Process 16.05(6)

1. leaves and yard materials greater than 50,000 cubic yards or 10,000 tons of leaves and yard waste on site at any time. Volume per unit area limit of: 5,000 cubic yard per acre.
2. vegetative materials (including vegetative sludges) less than or equal to 40 cubic yards or 20 tons per day.
3. food materials (including food sludges or paper sludges) less than or equal to 20 cubic yards or 10 tons per day.
4. agricultural composting operations which are not exempt under 310 CMR 16.05 (4)(C).

Subject to Solid Waste Site Assignment Regulations

1. facilities which accept vegetative materials greater than 40 cubic yards or 20 tons per day.
2. facilities which accept food materials greater than 20 cubic yards or 10 tons per day.
3. facilities which accept any amount of residential source-separated organic materials.
4. facilities which accept any amount of sludge and combine it with mixed solid waste or food materials or vegetative materials.
5. facilities which accept any amount of mixed solid waste.
6. as determined by the Department either: via DON or noncompliance with conditional exemption criteria.

~~Maryland Title 15 DEPARTMENT OF AGRICULTURE Subtitle 18 STATE CHEMIST Chapter 04 Compost~~

NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (EXCERPT)
Act 451 of 1994

324.11521 Yard clippings; management; means; temporary accumulation; requirements; composting on farm; qualification as registered composting facility; site at which yard clippings are managed.

Sec. 11521. (1) Yard clippings shall be managed by 1 of the following means:

(a) Composted on the property where the yard clippings are generated.

(b) Temporarily accumulated under subsection (2).

(c) Composted at a composting facility containing not more than 200 cubic yards of yard clippings if decomposition occurs without creating a nuisance.

(d) Composted on a farm as described by subsection (3).

(e) Composted at site that qualifies as a registered composting facility under subsection (4).

(f) Decomposed in a controlled manner using a closed container to create and maintain anaerobic conditions if in compliance with part 55 and otherwise approved by the director under this part.

(g) Composted and used as part of normal operations by a municipal solid waste landfill if the composting and use meet all of the following requirements:

(*i*) Take place on property described in the landfill construction permit.

(*ii*) Are described in and consistent with the landfill operation plans.

(*iii*) Are otherwise in compliance with this act.

(h) Processed at a processing plant in accordance with this part and the rules promulgated under this part.

(i) Disposed of in a landfill or an incinerator, but only if the yard clippings are diseased or infested or are composed of invasive plants, such as garlic mustard, purple loosestrife, or spotted knapweed, that were collected through an eradication or control program, include no more than a de minimis amount of other yard clippings, and are inappropriate to compost.

(2) A person may temporarily accumulate yard clippings at a site not designed for composting if all of the following requirements are met:

(a) The accumulation does not create a nuisance or otherwise result in a violation of this act.

(b) The yard clippings are not mixed with other compostable materials.

(c) No more than 1,000 cubic yards are placed on site unless a greater volume is approved by the department.

(d) Yard clippings placed on site on or after April 1 but before December 1 are moved to another location and managed as provided in subsection (1) within 30 days after being placed on site. The director may approve a longer time period based on a demonstration that additional time is necessary.

(e) Yard clippings placed on site on or after December 1 but before the next April 1 are moved to another location and managed as provided in subsection (1) by the next April 10 after the yard clippings are placed on site.

(f) The owner or operator of the site maintains and makes available to the department records necessary to demonstrate that the requirements of this subsection are met.

(3) A person may compost yard clippings on a farm if composting does not otherwise result in a violation of this act and is done in accordance with generally accepted agricultural and management practices under the Michigan right to farm act, 1981 PA 93, MCL 286.471 to 286.474, and if 1 or more of the following apply:

(a) Only yard clippings generated on the farm are composted.

(b) There are not more than 5,000 cubic yards of yard clippings on the farm.

(c) If there are more than 5,000 cubic yards of yard clippings on the farm at any time, all of the following requirements are met:

(*i*) The farm operation accepts yard clippings generated at a location other than the farm only to assist in management of waste material generated by the farm operation.

(*ii*) The farm operation does not accept yard clippings generated at a location other than the farm for monetary or other valuable consideration.

(*iii*) The owner or operator of the farm registers with the department of agriculture on a form provided by the department of agriculture and certifies that the farm operation meets and will continue to meet the requirements of subparagraphs (*i*) and (*ii*).

(4) A site qualifies as a registered composting facility if all of the following requirements are met:

(a) The owner or operator of the site registers as a composting facility with the department and reports to the department within 30 days after the end of each state fiscal year the amount of yard clippings and other compostable material composted in the previous state fiscal year. The registration and reporting shall be done on forms provided by the department. The registration shall be accompanied by a fee of $600.00. The

registration is for a term of 3 years. Registration fees collected under this subdivision shall be forwarded to the state treasurer for deposit in the solid waste staff account of the solid waste management fund established in section 11550.

(b) The site is operated in compliance with the following location restrictions:

(*i*) If the site is in operation on December 1, 2007, the management or storage of yard clippings, compost, and residuals does not expand from its location on that date to an area that is within the following distances from any of the following features:

(A) 50 feet from a property line.

(B) 200 feet from a residence.

(C) 100 feet from a body of surface water, including a lake, stream, or wetland.

(*ii*) If the site begins operation after December 1, 2007, the management or storage of yard clippings, compost, and residuals occurs in an area that is not in the 100-year floodplain and is at least the following distances from each of the following features:

(A) 50 feet from a property line.

(B) 200 feet from a residence.

(C) 100 feet from a body of surface water, including a lake, stream, or wetland.

(D) 2,000 feet from a type I or type IIA water supply well.

(E) 800 feet from a type IIB or type III water supply well.

(F) 500 feet from a church or other house of worship, hospital, nursing home, licensed day care center, or school, other than a home school.

(G) 4 feet above groundwater.

(c) Composting and management of the site occurs in a manner that meets all of the following requirements:

(*i*) Does not violate this act or create a facility as defined in section 20101.

(*ii*) Unless approved by the department, does not result in more than 5,000 cubic yards of yard clippings and other compostable material, compost, and residuals present on any acre of property at the site.

(*iii*) Does not result in an accumulation of yard clippings for a period of over 3 years unless the site has the capacity to compost the yard clippings and the owner or operator of the site can demonstrate, beginning in the third year of operation and each year thereafter, unless a longer time is approved by the director, that the amount of yard clippings and compost that is transferred off-site in a calendar year is not less than 75% by weight or volume, accounting for natural volume reduction, of the amount of yard clippings and compost that was on-site at the beginning of the calendar year.

(*iv*) Results in finished compost with not more than 1%, by weight, of foreign matter that will remain on a 4 millimeter screen.

(*v*) If yard clippings are collected in bags other than paper bags, debags the yard clippings by the end of each business day.

(*vi*) Prevents the pooling of water by maintaining proper slopes and grades.

(*vii*) Properly manages storm water runoff.

(*viii*) Does not attract or harbor rodents or other vectors.

(d) The owner or operator maintains, and makes available to the department, all of the following records:

(*i*) Records identifying the volume of yard clippings and other compostable material accepted by the facility and the volume of yard clippings and other compostable material and of compost transferred off-site each month.

(*ii*) Records demonstrating that the composting operation is being performed in a manner that prevents nuisances and minimizes anaerobic conditions. Unless other records are approved by the department, these records shall include records of carbon-to-nitrogen ratios, the amount of leaves and the amount of grass in tons or cubic yards, temperature readings, moisture content readings, and lab analysis of finished products.

(5) A site at which yard clippings are managed in accordance with this section, other than a site described in subsection (1)(g), (h) or (i), is not a disposal area, notwithstanding section 11503(5).

(6) Except with respect to subsection (1)(h) and (i), management of yard clippings in accordance with this section is not considered disposal for purposes of section 11538(6).

History: Add. 2007, Act 212, Eff. Mar. 26, 2008.

Popular name: Act 451

Popular name: NREPA

Popular name: Solid Waste Act

7035.2836 COMPOST FACILITIES.
Subpart 1.
Scope.
The requirements of subparts 4 to 7 apply to the owner and operator of a facility used to compost solid waste, including source separated compostables except as provided in part 7035.2525, subpart 2. The owner or operator of a yard waste compost facility must comply with subparts 2 and 3 only.
Subp. 2.
Notification.
The owner or operator of a yard waste compost facility shall submit a notification form to the commissioner on a form prescribed by the commissioner before beginning facility operations. The notification must include: the facility location; the name, telephone number, and address of the contact person; the facility design capacity; the type of yard waste to be received; and the intended distribution of the finished product.
Subp. 3.
Operation requirements for yard waste compost facility.
A. Odors emitted from the facility shall comply with the applicable provisions of any agency odor rules.
B. Composted yard waste offered for use must be produced by a process that includes turning of the yard waste on a periodic basis to aerate the yard waste, maintain temperatures, and reduce pathogens.
C. Compost will not contain greater than three percent inert materials (dry weight) that are greater than or equal to four millimeters as determined by the testing procedure under subpart 5, item J, subitem (3).
D. By-products, including residuals and recyclables, must be stored in a manner that prevents vector problems and aesthetic degradation. Materials that are not composted must be stored and removed at least weekly.
E. Surface water drainage runoff must be controlled to prevent leachate leaving the facility. Surface water drainage run-on must be diverted from the compost and storage areas.
F. The facility shall be constructed and operated to prevent discharge of yard waste, leachate, residuals, and the final product into waters of the state.
G. The facility operator shall submit an annual report to the commissioner by March 1 of each year for the preceding calendar year that includes the type and quantity, by weight or volume, of yard waste received at the compost facility; the quantity, by weight or volume, of compost produced; an average of the inert test results; the quantity, by weight or volume, of compost removed from the facility; and a market description.
Subp. 4.
Design requirements for solid waste compost facility.
The owner or operator of a compost facility shall submit an engineering design report to the commissioner for approval with the facility permit application. The engineering report must comply with the design requirements in items A to G.
A. Site preparations must include clearing and grubbing for the compost operating and storage areas, building locations, topsoil stripping, excavations, berm construction, drainage control structures, leachate collection system, access roads, screening, fencing, and other special design features.
B. Access to the facility must be controlled by a perimeter fence and gate or enclosed structures.
C. Surface water drainage must be diverted around and away from the site operating area. A drainage control system, including changes in the site topography, ditches, berms, sedimentation ponds, culverts, energy breaks, and erosion control measures, must comply with part 7035.2855, subpart 3, items C to E.
D. The composting, curing, and storage areas for immature compost must be located on a liner capable of minimizing migration of waste or leachate into the subsurface soil, groundwater, and surface water. The liner must have a permeability no greater than 1 x 10-7 centimeters per second and, if constructed of natural soils, be at least two feet thick. The liner must comply with part 7035.2855, subparts 3, item A; 4; and 5.
E. Liquid in contact with waste, immature compost, and residuals must be diverted to a leachate collection and treatment system. The leachate collection and treatment system must comply with part 7035.2855, subpart 3, item B, and the applicable portions of part 7035.2815, subpart 9, items B to K.
F. The facility must be designed for collection of residuals and must provide for the final transportation and proper disposal of residuals.
G. The facility must be designed and operated to control odors in compliance with the applicable provisions of any agency odor rules.

Subp. 5. Operation requirements for solid waste compost facility.
The owner or operator of a compost facility shall submit an operation and maintenance manual to the commissioner for approval with the facility permit application. The manual must include a personnel training program plan, a leachate management plan, and a compost sampling plan and must comply with the operation requirements in items A to L.
A. All access points must be secured when the facility is not open for business or when no authorized personnel are on site.
B. The personnel training program plan must address the requirements of part 7035.2545, subparts 3 and 4, and the specific training needed to operate a compost facility in compliance with this subpart and subparts 6 and 7.
C. All wastes delivered to the facility must be confined to a designated delivery area and processed or removed at least once a week to prevent nuisances such as odors, vector intrusion, and aesthetic degradation.
D. All salvageable and recyclable materials must be containerized or stored and removed from the facility in a manner that prevents nuisances such as odors, vector intrusion, and aesthetic degradation.
E. All compost residuals must be stored to prevent nuisances such as odors, vector intrusion, and aesthetic degradation. The residuals must be removed and properly disposed of at least once a week.
F. The leachate management plan must describe how the facility will store, reuse, or dispose of collected leachate. If leachate is to be recirculated into the compost, it must be added prior to initiating the PFRP process described in item I.
G. Odors emitted by the facility must comply with any applicable agency odor rules.
H. The owner or operator must cover or otherwise manage the waste to control wind dispersion of any particulate matter.
I. Compost must be produced by a process to further reduce pathogens (PFRP). The temperature and retention time for the material being composted must be monitored and recorded each working day. Three acceptable methods of a PFRP are described in subitems (1) to (3):
(1) The windrow method for reducing pathogens consists of an unconfined composting process involving periodic aeration and mixing. Aerobic conditions must be maintained during the compost process. A temperature of 55 degrees Celsius must be maintained in the windrow for at least three weeks. The windrow must be turned at least once every three to five days.
(2) The static aerated pile method for reducing pathogens consists of an unconfined composting process involving mechanical aeration of insulated compost piles. Aerobic conditions must be maintained during the compost process. The temperature of the compost pile must be maintained at 55 degrees Celsius for at least seven days.
(3) The enclosed vessel method for reducing pathogens consists of a confined compost process involving mechanical mixing of compost under controlled environmental conditions. The retention time in the vessel must be at least 24 hours with the temperature maintained at 55 degrees Celsius. A stabilization period of at least seven days must follow the enclosed vessel retention period. Temperature in the compost pile must be maintained at least at 55 degrees Celsius for three days during the stabilization period.
J. The owner or operator must comply with the compost sampling and testing plan approved by the commissioner. Proposed changes to sampling equipment or procedures must be submitted to the commissioner for review and approval. Testing must be conducted when each batch of compost matures. The plan must include the sampling and testing requirements in subitems (1) to (6).
(1) The compost maturity must be determined using testing protocol described in the sampling plan. "Mature" means more than 60 percent decomposition has been achieved as determined by an ignition-loss analysis and one test method approved by the commissioner including, but not limited to, the following:

	Test Method	Maturity Standard
(a)	Carbon/nitrogen ratio - U.S. EPA Method 9060A: Total Organic Carbon and Dumas	In the range of 10:1 to 20:1
(b)	Dewar Self-Heating Method	Temperature rise above ambient in C°, range of 0° - 20° Celsius
(c)	Respiration Rate, CO2 Analysis	<2-5 (mg. CO2-C/g compost carbon-day)
(d)	U of M Z-test - Soil and Crop Research on Municipal Solid Waste Class I Compost Utilization in Minnesota, April 10, 1994	The weight of the worms in the cellulose treatment increases and that of the worms in the noncellulose treatment remains the same

(e)	Cress Seed Germination - Recommended Test Methods, The Composting Council	Germination index in the range of 1.0 - 0.8

(2) Each batch of compost that has been determined to be mature must be analyzed for the metal contaminants listed in subpart 6, item A, subitem (1), using the U.S. EPA test methods in EPA SW-846. PCBs in the compost must be extracted using either method 3540 or 3550 and analyzed with method 8080.
(3) The amount of inert material in each batch of compost that has been determined to be mature must be determined using testing protocol described in the sampling plan. Inert content greater than four millimeters shall be determined by passing four replicates of 250 cc oven-dried (70 degrees Celsius) samples of compost through a four millimeter sieve. Material remaining on the sieve shall be visually inspected and inerts, including glass, metal, and plastic, shall be separated and weighed. The weight of the separated inert material divided by the weight of the total sample, multiplied by 100, shall be the percent dry weight of the inert material content.
(4) The mature compost must be analyzed for the following parameters using the testing protocol described in the sampling plan:
(a)pH;
(b)moisture content;
(c)particle size;
(d) NPK ratio; and
(e)soluble salt content.
(5) The sampling plan must contain techniques for collecting and processing the samples required in subitems (1) to (4), including:
(a) the training and experience qualifications of persons who collect samples;
(b) equipment used to collect, process, and store samples;
(c) sampling equipment cleaning procedures and other actions taken to prevent sample contamination;
(d) the location or locations where samples are collected;
(e) procedures used to collect grab samples;
(f) procedures used to process grab samples to form composite samples;
(g) chain-of-custody and sample storage procedures; and
(h) compost sampling quality assurance and quality control measures.
(6) The sampling plan must describe how the test results from the samples required in subitems (1) to (4) will be utilized to define the compost at distribution, and must include:
(a) a description of the batch process, statistical average, or other method used to classify the compost, and assign it physical and chemical properties; and
(b) a description of the method used to calculate the cumulative and annual pollutant loading rates for Class II compost.
K. An annual report complying with part 7035.2585 must be submitted to the commissioner by March 1 of each year for the preceding calendar year. A record of the following information must be maintained at the facility and included in the annual report:
(1) the quantity of source-separated compostables or solid waste delivered to the facility;
(2) the quantity and general material breakdown of recyclables and rejects removed from the waste;
(3) the sources and quantities of other materials used in the compost process, such as nutrient or bulking agents;
(4) a summary of temperature and retention time for all compost produced verifying that the process, set out in item I, to further reduce pathogens is being met;
(5) the quantity and classification of all compost produced;
(6) a summary of all lab analyses conducted according to the sampling plan approved under item J;
(7) a record of each Class II compost distribution, including the following:
(a) a copy of the information sheet or label accompanying all Class II compost distributions according to subpart 7;
(b) the name of the compost user and a legal description of the application site location, including the quantity of compost and acreage over which it was distributed;
(c) copies of the letters of notification to the local governments; and
(d) a copy of the United States Geological Survey map of the application site and the surrounding areas showing contours and surface waters.

L. If, for any reason, the facility becomes inoperable, the owner or operator of the facility must notify the commissioner within 48 hours and implement the contingency action plan developed under part 7035.2615.
Subp. 6. Compost classification.
Compost produced at a solid waste compost facility must be classified as Class I or Class II compost based on the criteria outlined in items A and B. Compost test results shall be used to classify the compost according to the approved sampling plan under subpart 5, item J, the maturity standard in subpart 5, item J, subitem (1), and the PFRP requirement in subpart 5, item I.
A. Class I compost must meet the following criteria:
(1) Class I compost cannot exceed the contaminant concentrations in milligram per kilogram on a dry weight basis as listed in the following table or Code of Federal Regulations, title 40, section 503.13(b)(3), as amended, with the exception of mercury, which cannot exceed contaminant concentrations of five milligrams per kilogram.

Contaminant	Concentration (mg/kg)
Arsenic (As)	41
Cadmium (Cd)	39
Copper (Cu)	1,500
Lead (Pb)	300
Mercury (Hg)	5
Molybdenum (Mo)	18
Nickel (Ni)	420
Selenium (Se)	100
PCB	6
Zinc (Zn)	2,800

(2) Class I compost must not contain greater than three percent inert materials (dry weight) greater than or equal to four millimeters as determined by tests according to the approved sampling plan under subpart 5, item J, subitems (1) to (5).
B. Class II compost consists of any compost that fails to meet the Class I standards and meets the criteria in subitems (1) and (2):
(1) Class II compost must meet the following pollutant loading rates and have a PCB concentration that does not exceed six milligrams per kilogram.

Pollutant	Cumulative Pollutant Loading Rate	
	(lbs/acre)	(kg/hectare)
Arsenic	37	41
Cadmium	34	39
Copper	1,338	1,500
Lead	267	300
Mercury	5	5
Molybdenum	16	18
Nickel	374	420
Selenium	89	100
Zinc	2,497	2,800

Pollutant	Annual Pollutant Loading Rate (for a containerized compost)	
	(lbs/acre)	(kg/hectare)
Arsenic	1.8	2

Cadmium	1.7	1.9
Copper	66.8	75
Lead	13.3	15
Mercury	0.25	0.25
Molybdenum	0.5	0.5
Nickel	18.7	21
Selenium	4.5	5
Zinc	124.6	140

(2) Class II compost must not contain greater than four percent inert materials (dry weight) greater than or equal to four millimeters as determined by tests according to the approved sampling plan under subpart 5, item J, subitems (3) and (5).

Subp. 7. Compost distribution and end use.

The owner or operator of a solid waste compost facility shall submit a compost distribution plan to the commissioner for approval with the facility permit application. The plan must comply with the requirements in items A to C.

A. Compost distributed or marketed as a fertilizer, specialty fertilizer, soil amendment, or plant amendment, as defined in Minnesota Statutes, section 18C.005, must be registered with the Minnesota Department of Agriculture.

B. The allowable end uses for the compost must be listed and described in the plan.

C. Class I compost may be distributed for unrestricted use. Class II compost may be distributed on a restricted basis. The commissioner or a compost operator trained as required in subpart 5, item B, shall determine the appropriate distribution for a Class II compost used in land application. Compost proposed to be distributed for end uses other than land application may be distributed with the commissioner's approval or as part of the approved facility compost distribution plan under this subpart. All Class II compost distributed must be accompanied by an information sheet or label describing the compost product and its physical and chemical quality, including at least the following information:

(1) the name and address of the generator;

(2) a statement from the generator certifying that the compost meets the Class II classification standards under subpart 6, item B, and providing the standards;

(3) a list of best management practices to use when applying the compost;

(4) the annual or cumulative application rate calculated according to the testing and reporting methods approved under subpart 5, item J, subitem (6);

(5) the compost maturity tested and reported according to subpart 5, item J, subitem (1);

(6) the compost inert content tested and reported according to subpart 5, item J, subitem (3); and

(7) a statement of the compost parameter values tested and reported according to subpart 5.

Statutory Authority: MS s 116.07

History: 21 SR 327

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http://www.deq.state.ms.us/MDEQ.nsf/page/SW_General_Solid_Waste_Guidance?OpenDocument

SECTION IX. COMPOSTING FACILITY REQUIREMENTS

A. 1. An individual permit or a certificate of coverage under a general permit is required for the operation of a composting facility. The individual permit or certificate of coverage under any applicable general permit must be issued prior to the receipt of any waste.

2. An applicant for a new composting facility shall complete a notification of intent for coverage under any applicable general permit or an application for an individual permit on forms provided by the Department. Such submittal shall demonstrate that the facility will comply with all applicable requirements of Sections II, III and IX of these regulations and the terms and conditions of a general permit or an individual permit.

3. Owners of existing composting facilities, which have been issued an individual permit, may request that their permit be revoked and that they be issued a certificate of coverage under any applicable general permit. Likewise, owners of existing composting facilities which have been previously issued a certificate of coverage under a general permit may request that their certificate of coverage be revoked and that they be issued an individual permit.

B. Requirements for facilities that receive only yard waste or rubbish.

1. Access to the facility shall be closed to the general public unless an attendant is on site.

2. Non-biodegradable bags, as well as all unauthorized waste materials, as determined by the Department, shall be removed from the compost and stored in appropriate containers for ultimate disposal or management at a facility approved by the Department.

3. Open burning of solid waste, except for land clearing debris generated on the site of the facility, shall be prohibited. Immediate action shall be taken to extinguish any accidental fire and the Department shall be notified as soon as possible.

4. Compost offered for use must be produced by a process that encompasses turning on a regular basis to aerate the waste, maintain temperatures, and/or reduce pathogens. Similar technologies that accomplish the same may also be considered by the Department.

5. Surface water drainage shall be diverted around and away from the composting area and controlled to prevent any washing or escape of waste from the property. If the Department deems it necessary, a leachate collection and treatment system may be required.

6. An annual report shall be submitted to the Department on or before February 28th of the following calendar year, which includes the following information:

a. the facility name, address, and permit number;

b. the total quantity, by weight or volume, of the waste received for composting;

c. the total quantity, by weight or volume, of all residuals and recyclables separated from the waste or compost, and a description of how these materials were disposed or managed;

d. the total quantity, by weight or volume, of the compost produced;

e. the total quantity, by weight or volume, of the compost removed from the facility, and a description of how the compost was distributed or used; and,

f. the remaining capacity for storage of compost at the facility based upon the amount of compost on site at the beginning of the year, the amount of compost produced, and the amount removed during the year.

C. Requirements for facilities that receive household garbage, wastewater sludge, animal wastes and manures and/or other solid waste with similar properties or characteristics, as determined by the Department.

1. Design requirements

a. Specifications for site preparation must be included in the engineering design report developed for the site, such as clearing and grubbing, berm construction, drainage control structure, access roads, screening, fencing, etc.

b. Surface water drainage shall be diverted around and away from the composting area and controlled to prevent any escape of waste from the property. Washdown water, leachate and any other contaminated water generated in the facility other than domestic wastewater shall be directed to sumps for use within the process. No discharge of contaminated water shall occur unless specifically allowed by the issuance of a wastewater permit.

c. For facilities which process household garbage, the receiving area and the composting area must be covered with a roof capable of preventing rainfall from directly contacting the waste or compost. Final curing areas are not required to be roofed.

2. Operational Requirements

a. The individual(s) responsible for making the decisions critical to the composting process such as turning, wetting, screening, etc., shall have a knowledge of the biological processes at work and the expertise and knowledge capable of operating the facility in compliance with the requirements of this sections.

b. All waste delivered to the facility must be confined to a designated delivery or receiving area. For facilities which receive household garbage, the waste must be processed within 72 hours or removed and disposed in another appropriate facility.

c. Access to the facility shall be controlled by a permanent fence and gate or enclosed buildings. All access points shall be secured whenever the facility is not open for business or when no authorized personnel are on site.

d. Residuals and recyclables shall be stored in a manner to prevent vector intrusion and aesthetic degradation. Appropriate steps shall be taken as necessary to alleviate any problems with flies, mosquitoes, or other vectors. Recyclables shall be removed at least annually; non-recyclable residuals shall be removed at least weekly.

e. Unless the Permit Board authorizes different operating conditions based upon a sufficient demonstration that such conditions would result in a compost of equal or better quality, the following conditions shall apply:

(1) Where the windrow method of composting is utilized, a temperature of at least 55 °C must be maintained in the windrow for at least three weeks. Aerobic conditions must be maintained during the compost process. The windrow must be turned at least twice weekly during the three-week period.

(2) Where the static aerated pile method of composting is utilized, a temperature of at least 55 °C must be maintained for at least seven days. Aerobic conditions must be maintained during the compost process.

(3) Where the in-vessel method of composting is utilized, a retention time in the vessel must be at least 24 hours with the temperature maintained at 55 °C or higher. A stabilization period of at least seven days must follow the minimum retention period. Temperature in the compost pile must be maintained at least at 55 °C for at least three days during the stabilization period.

3. Testing and Monitoring

a. A composite sample of the compost produced shall be taken and analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first. At a minimum, the following tests shall be conducted:

Parameter Units to be Expressed
Moisture %
Total Nitrogen (as N) % dry weight
Ammonia Nitrogen (as N) % dry weight
Nitrate Nitrogen (as N) % dry weight
Total Phosphorous % dry weight
Total Potassium % dry weight
Organic Matter % dry weight
Reduction in Organic Matter %
pH standard units
Arsenic, Total mg/kg dry weight
Arsenic, TCLP ppm
Barium, Total mg/kg dry weight
Barium, TCLP ppm
Cadmium, Total mg/kg dry weight
Cadmium, TCLP ppm
Chromium, Total mg/kg dry weight
Chromium, TCLP ppm
Copper, Total mg/kg dry weight
Lead, Total mg/kg dry weight
Lead, TCLP ppm
Mercury, Total mg/kg dry weight
Mercury, TCLP ppm
Nickel, Total mg/kg dry weight
Selenium, Total mg/kg dry weight
Selenium, TCLP ppm
Silver, Total mg/kg dry weight
Silver, TCLP ppm
Zinc, Total mg/kg dry weight

c. In addition to the test parameters required in paragraph E.3.b of this section where sewage sludge, animal manures and wastes or other similar wastes are composted, a fecal coliform count shall be conducted before and after composting.

d. The Permit Board may require additional or fewer test parameters or may increase or decrease the frequency of analysis based upon the quantity or characteristics of the waste, the location of the facility, or other factors which the Permit Board deems relevant.

e. Composite samples of the compost taken pursuant to this section shall consist of at least five individual samples of equal volume taken from separate areas along the side of each pile of compost. Each sampling point shall be at a depth of two feet into the pile from the outside surface.

f. Analytical methods for all tests shall be approved by the U.S. Environmental Protection Agency or the Department.

g. The Permit Board may require other monitoring activities such as groundwater and/or surface water monitoring.

h. The reduction in organic matter required pursuant to paragraph E.3.b of this section shall be determined by comparing the organic matter content of the feedstock and the organic matter content of the compost product, using the following calculation:

$$\% \text{ ROM} = \left[1 - \frac{\text{OMP}\ (100 - \text{OMF})}{\text{OMF}\ (100 - \text{OMP})}\right] \times 100$$

where % ROM = reduction in organic matter

OMF = % organic matter of the feedstock (before decomposition)

OMP = % organic matter of the compost product (after decomposition)

4. Recordkeeping and Reporting.

a. Records shall be maintained at the facility of the quantity of incoming waste, residuals and recyclables, and the quantity and quality of compost produced.

b. Records of analytical testing and monitoring shall be maintained for a period of at least five (5) years, including:

(1) the date of measurement and the person measuring the quantity of incoming waste, residuals, recyclables, and compost produced, and the results thereof;

(2) the dates all analyses were performed;

(3) the person or contract lab who performed all analyses;

(4) the analytical techniques or methods used; and

(5) the results of all analyses.

c. Records shall be available for inspection by Department personnel during normal business hours and shall be sent to the Department upon request.

d. An annual report shall be submitted to the Department on or before February 28th of the following calendar year, which includes the following information:

(1) the facility name, address, and permit number;

(2) the total quantity in weight or volume of waste received at the facility;

(3) the total quantity in weight or volume of all residuals and recyclables separated from the waste or compost, and a description of how these materials were disposed or managed;

(4) the total quantity in tons (dry weight) or volume of waste processed for composting at the facility;

(5) the total quantity in tons (dry weight) or volume of compost produced at the facility;

(6) the total quantity in tons (dry weight) or volume of compost removed from the facility, and a description of how the compost was distributed, used, or disposed; and

(7) the remaining capacity for storage of compost at the facility based upon the amount of compost on site at the beginning of the year, the amount of compost produced, and the amount removed during the year.

D. Classification of Compost

1. Compost shall be classified based upon the type of waste processed, product maturity, particle size, moisture content, and chemical quality.

a. Types of waste processed shall include the following:

(1) yard waste or rubbish only;

(2) sewage sludge;

(3) animal manures and wastes,

(4) household garbage, or other solid waste.

(5) some combination of the above wastes

b. Product maturity.

(1) Mature compost is a highly stabilized compost material that has been exposed to prolonged periods of decomposition. It will not reheat upon standing to greater than 20°C above ambient temperature. The material should be brown to black in color. This level of maturity is indicated by a reduction in organic matter of greater than 60%.

(2) Semi-mature compost is compost material that is at the mesophilic stage. It may reheat upon standing to greater than 20°C above ambient temperature. The material should be light to dark brown in color. This level of maturity is indicated by a reduction in organic matter of greater than or equal to 40% but less than or equal to 60%.

(3) Fresh compost is compost material that has not completed the thermophilic stage and has undergone only partial decomposition. The material will reheat upon standing to greater than 20°C above ambient temperature. The material is usually similar in texture and color to the feedstock of the composting process. This level of maturity is indicated by a reduction in organic matter of greater than or equal to 20% but less than or equal to 40%.

c. Particle size.

(1) Fine compost is compost that will pass a 10mm screen.
(2) Coarse compost is compost that will not pass a 10mm screen, but will pass a 25mm screen.
(3) Material, which will not pass a 25mm screen, shall be considered as residuals and not compost. It may be placed back into the compost process for additional reduction in size and decomposition.

d. Moisture content.

Any finished compost which is not mature shall have a moisture content no higher than 60% at the time it is released from the facility for distribution or use.

e. Chemical Quality.

The chemical quality of the compost shall be determined by the toxicity characteristics leaching procedure

(TCLP) for the following metals, and shall be defined as either good or poor:

Metal	Good Quality	Poor Quality
Arsenic	< 0.5 ppm	0.5 - 5.0 ppm
Barium	<10.0 ppm	10.0 - 100 ppm
Cadmium	< 0.1 ppm	0.1 - 1.0 ppm
Chromium	< 0.5 ppm	0.5 - 5.0 ppm
Lead	< 0.5 ppm	0.5 - 5.0 ppm
Mercury	<0.02 ppm	0.02 - 0.2 ppm
Selenium	< 0.1 ppm	0.1 - 1.0 ppm
Silver	< 0.5 ppm	0.5 - 5.0 ppm

2. Compost shall be classified as follows:

a. Class I is compost made only from yard waste and/or other rubbish, which is mature or semi-mature, and is fine or coarse. For such compost, the chemical quality is assumed to be good, and no analytical testing is required unless the Department has reason to believe that the quality of the compost may not be good. If the compost is semi-mature, the moisture content must be less than or equal to 60%

b. Class II is compost made from sewage sludge, or from yard waste/rubbish mixed with sewage sludge, which is mature, fine, and has a good chemical quality.

c. Class III is compost made from household garbage or any other solid wastes with similar properties or characteristics, which is mature, fine, and has a good chemical quality.

d. Class IV is compost made from household garbage or any other solid wastes with similar properties or characteristics, which is mature or semi-mature, and is fine or coarse, and has a good chemical quality. If the compost is semi-mature, the moisture content must be less than or equal to 60%.

e. Class V is compost made from any solid waste which is fresh, or which has a poor chemical quality.

E. Compost distribution and use.

1. Compost classified as Class I or II shall have unrestricted distribution.

2. Compost classified as Class III or IV shall be restricted to use by commercial, agricultural, institutional, or governmental operations. However, if it is used where contact with the general public is likely, such as in a park, only Class III compost may be used.

3. Compost classified as Class V shall only be used as landfill cover, with the specific approval of the Department.

4. Compost, which cannot be processed to meet the definition of one of the five classifications in Part F.2 of this section, must be disposed in a facility approved by the Department.

5. A release form shall be provided to every person who receives for distribution or use compost classified as Class II, III, or IV, which contains, at a minimum, the following information:

a. the name of the person to whom the compost is released, and the date released;

b. the classification and quantity of compost released;

c. the results of the latest chemical analysis of the compost conducted pursuant to paragraph E.3. of this section;

d. the amount of total cadmium, copper, nickel, lead and zinc present in the compost, expressed in pounds per dry ton of compost;

e. the maximum allowable compost application rate (MACAR), in tons per acre, based upon the concentration of total cadmium, copper, nickel, lead and zinc, as computed and restricted in paragraph G.6 of this section;

f. a statement that any application of the compost in excess of the maximum allowable compost application rate as shown on this form is a violation of the laws of the State of Mississippi;

g. if the compost is classified as Class IV, a statement that the compost shall not be applied where contact with the general public is likely, such as in a park.

h. the signature of a representative of the compost facility and the person to whom the compost is released.

If the person listed in paragraph G.5.a of this section indicates in the release form that he/she will not distribute or use the compost within the State of Mississippi, or, if the compost will only be used for landfill cover, the information in paragraph G.5.d, G.5.e, or G.5.f of this section are not required to be provided.

6. The maximum allowable compost application rate (MACAR) shall be computed according to the following equation:

$$\{MACAR\}M = \{MAMAR\}M$$
$$\{CONC\}M \times 10\text{-}6 \times 2000$$

where {MACAR}M = maximum allowable compost application rate, in tons/ac/yr, based upon the specific metals listed in paragraph G.7.a of this section.

[MAMAR}M = maximum allowable metal application rate, in lbs/ac/yr, for each of the metals listed in paragraph G.7.a of this section.

{CONC}M = the total metal concentration, in mg/kg dry weight, for each of the metals listed in paragraph G.7.a of this section.

After computing the MACAR for each of the metals listed in paragraph G.7.a. of this section, the lowest value computed shall be the MACAR to be provided in the release form pursuant to paragraph G.5.e. of this section.

7. a. Except as provided in paragraphs G.7.b. and G.7.c. of this section, no person who applies or uses compost on land within the State of Mississippi, other than for landfill cover, shall do so in a manner that exceeds the following maximum allowable metal application rates (MAMAR's):

Metal	MAMAR (lbs/ac/yr)
Cadmium	0.45
Copper	11.1
Lead	44.5
Nickel	11.1
Zinc	22.2

b. For applications where repeated use of the compost is not expected, such as land reclamation or as a soil amendment on highway right-of-ways, request for higher application rates may be made to the Department. Such request must be made in writing to the Department, stating the site upon which the compost will be used. The request must be approved in writing by the Department.

In no case will the Department allow an application rate of more than 10 times the MAMAR's listed in this part, except as provided in paragraph G.7.c of this section.

c. If a person wishing to apply compost to the soil can demonstrate through an analysis of the soil cation exchange capacity and other physical or chemical characteristics of the soil that a higher MAMAR will provide an equal degree of protection to the environment, the Department may approve such application rates.

Missouri Department of Natural Resources/Division of Environmental Quality Code of State Regulations
10 CSR 20 Water Quality
10 CSR 10 Air Quality

(CSR) 10 CSR 80-2.020(9)
(9) Permit Exemptions.
(A) The following types of activities, solid waste disposal areas or solid waste processing facilities are not required to obtain a permit provided that pollution, a public nuisance or a health hazard is not created:
1. Any area receiving only uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks and bricks for fill or reclamation;
2. Any on-site solid waste processing facility which processes solid waste from an individual household, single building or institution provided the facility is located on-site where the refuse originates;
3. Any properly managed disposal container of ten (10) cubic yards or less located in a rural area that receives residential solid waste from more than one (1) family unit as long as its contents are emptied and disposed of at a permitted solid waste disposal facility at least once per week;
4. The use of solid waste in normal farming operations;
5. The use of solid waste in the processing or manufacturing of products;
6. The disposal by an individual of solid waste resulting from his/her own residential activities on property owned or lawfully occupied by him/her;
7. The operation and/or closure of a waste stabilization lagoon, settling pond or other water or wastewater treatment facility which has a permit from the Missouri Clean Water Commission even though the facility may receive solid or semisolid waste materials so long as the facility complies with the provisions of 10 CSR 80-2.030(2)(B) regarding filing of the survey plat upon closure. A solid waste disposal area construction and operating permit shall be required for settling ponds intended for the permanent disposal of utility waste and where the owner/operator applies for a construction permit or approval from the Missouri Clean Water Commission after the effective date of this rule;
8. A recycling center or drop-off collection point that accepts source-separated or commingled recyclable materials;
9. The composting or co-composting of waste materials, other than municipal solid waste, generated by agricultural and domestic activities on property owned or lawfully occupied by the generator; or the composting or co-composting of yard waste, wood waste, paper waste and/or poultry waste as long as such activity has a permit or approval from the Missouri Clean Water Commission. Composting or co-composting of municipal solid waste and/or sewage sludge is NOT exempted and requires a solid waste processing facility permit for construction and operation;
10. A hospital pursuant to section 260.203, RSMo;
11. The beneficial use of bottom ash or boiler slag generated primarily from the combustion of coal or other fossil fuels for snow and ice control; and 12. The beneficial use of fly ash generated primarily from the combustion of coal or other fossil fuels for concrete/flowable fill additive.
(B) The department may grant an exemption from having to obtain a solid waste disposal area permit for a proposal to beneficially reuse solid waste, provided that beneficial use and/or reclamation can be demonstrated and provided that pollution, a public nuisance or a health hazard will not be created. In the event a person desires to request an exemption from the requirement to obtain a permit, that person shall submit a detailed, written request to the department which includes the following information:
1. A detailed explanation of the beneficial use or reclamation that supports the request;
2. A detailed explanation with supporting documentation identifying the site location, surrounding land use, and site characteristics;
3. An estimate of the quantity of waste needed to complete the project, the length of time required for completing the project and documentation specifying the source of the waste;
4. A detailed description of the physical and chemical characteristics of the waste, background soils and water quality immediately within and/or adjacent to the project area. The description shall include supporting laboratory test data. The appropriate laboratory tests shall be determined in conjunction with the department, and shall

include, at a minimum, Toxicity Characteristic Leaching Procedure (TCLP) testing analyses or modified TCLP testing analyses. Details regarding locations of samples and sampling and testing methods shall be provided. Testing analyses shall be performed on all applicable parameters (organic and/or inorganic substances) which comprise the waste. The detection limits for applicable constituents in the testing analyses shall be consistent with standard laboratory procedures. Sampling and analysis shall be conducted in accordance with U.S. EPA approved standard laboratory methods and procedures;
5. Verification that the placement of the waste will be kept above the seasonal high groundwater table, unless a variance is obtained from the Water Pollution Control Program (WPCP).
6. A detailed description of the proposed operational procedures for waste removal from the generator, transport, placement, compaction, dust control, erosion control and procedures for protecting the general aesthetics of the site;
7. Provisions for closing the area— A. A description of the source, quality and quantity of cover required; and
B. A description of the type of vegetation to be established to prevent erosion; and
8. The exemption request must also include the following:
A. Name of the owner(s) of the property on which the proposed beneficial reuse operation will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;
B. Name of the operator(s) of the proposed operation;
C. A map showing land use within one thousand feet (1,000') of the proposed operation;
D. A management plan that describes and includes:
(I) Basic site design;
(II) Size of buffer zone;
(III) Site drainage control;
(IV) A list of the waste material to be beneficially reused;
(V) Quality and quantity of incoming waste material;
(VI) Type of technology to be used;
(VII) Odor and vector control and mitigation procedures; and
(VIII) Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation);
E. A copy of the application for any applicable Water Pollution Control Program permits or approvals;
F. A copy of the application for any applicable Air Pollution Control Program permits or approvals;
G. Evidence of compliance with local zoning and planning requirements;
H. Emergency contact phone number(s);
I. Final use or disposition of the material to be beneficially reused; and
J. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised.
(C) The department may grant exemptions for small scale pilot projects or demonstration projects. Such projects must be for a beneficial use and not exceed a period of one (1) year. The pilot project may be exempt after receipt of prior written approval from the department. The applicant must include:
1. Location and size of the property on which the proposed pilot project or demonstration project will be located;
2. Name of the owner(s) of the property on which the proposed project will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;
3. Name of the operator(s) of the proposed project;
4. A map showing land use within one thousand feet (1,000') of the proposed project;
5. A management plan that describes and includes:
A. Basic site design;
B. Size of buffer zone;
C. Site drainage control;
D. A list of the waste material to be used;
E. Quality and quantity of incoming waste material to be used:
F. Type of technology to be used;
G. Odor and vector control and mitigation procedures;

H. Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation);
I. Frequency of testing;
J. Anticipated start date and length of project; and
K. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised;
6. A copy of the application for any applicable Water Pollution Control Program (WPCP) permits or approvals;
7. A copy of the application for any applicable Air Pollution Control Program (APCP) permits or approvals;
8. Evidence of compliance with local zoning and planning requirements;
9. Emergency contact phone number(s); and
10. Final use or disposition of the product.
(D) The department may grant an exemption from having to obtain a solid waste processing facility permit for the composting or co-composting of solid waste not specifically addressed in 10 CSR 80-2.020(9)(A)9. (e.g., food waste) provided that beneficial use of the compost can be demonstrated and provided that the composting and beneficial use activities will not create pollution, a public nuisance or health hazard. In the event a person desires to request an exemption from the requirements to obtain a permit, that person shall submit a written request to the department which includes the following:
1. Location and size of the property on which the proposed composting or co-composting operation will be located;
2. Name of the owner(s) of the property on which the proposed composting or cocomposting operation will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;
3. Name of the operator(s) of the proposed operation;
4. A map showing land use within one thousand feet (1,000') of the proposed operation;
5. A compost management plan that describes and includes:
A. Basic site design;
B. Size of buffer zone;
C. Compost pad surface material and slope;
D. Site drainage control;
E. A list of the waste material to be composted;
F. Quality and quantity of incoming waste material to be composted:
G. Type of compost technology to be used;
H. Odor and vector control and mitigation procedures;
I. Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation); and
J. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised;
6. A copy of the application for any applicable Water Pollution Control Program (WPCP) permits or approvals;
7. A copy of the application for any applicable Air Pollution Control Program (APCP) permits or approvals;
8. Evidence of compliance with local zoning and planning requirements;
9. Emergency contact phone number(s); and
10. Final use or disposition of the compost.
(E) The department may grant an exemption from having to obtain a solid waste processing facility permit for the processing of construction and demolition waste provided that such activities will not create pollution, a public nuisance or health hazard. In the event a person desires to request an exemption from the requirements to obtain a permit, that person shall submit a written request to the department which includes the following:
1. Location and size of the property on which the proposed processing facility will be located;
2. Name of the owner(s) of the property on which the proposed processing facility will be located. If the owner differs from the person requesting the exemption, the permit exemption request shall include a statement signed by the owner stating his/her awareness of the beneficial use request and his/her approval of the operation;
3. Name of the operator(s) of the proposed operation;
4. A map showing land use within one thousand feet (1,000') of the proposed operation;
5. A management plan that describes and includes:

A. Basic site design;
B. Size of buffer zone;
C. A list of the waste materials to be processed;
D. Quality and quantity of incoming waste material;
E. Type of technology to be used;
F. Contingency plan (what steps will be taken to correct any problems that may occur as a result of the operation); and
G. A statement indicating what steps will be taken to ensure unacceptable waste is not received and verification that the unloading of waste will be supervised;
6. A copy of the application for any applicable Water Pollution Control Program (WPCP) permits or approvals;
7. A copy of the application for any applicable Air Pollution Control Program (APCP) permits or approvals;
8. Evidence of compliance with local zoning and planning requirements;
9. Emergency contact phone number(s); and
10. Final use or disposition of recovered materials and residual waste.
(F) The department may grant a general exemption for the beneficial use of type C fly ash and associated bottom ash and boiler slag generated primarily from the combustion of coal or other fossil fuels for beneficial use as road base or structural fill. The beneficial use of type C fly ash and bottom ash or boiler slag for road base will be allowed if the total mixture of soil and ash beneath the road will not exceed two feet (2'). The beneficial use of type C fly ash and bottom ash or boiler slag for structural fill will be allowed provided the area to be disturbed is less than five (5) acres in size and the maximum depth of ash will not exceed two feet (2'). The applicant must renew the exemption when the source of coal is changed or there is a change in the processing of the coal which has an effect on the ash produced. The renewal must be submitted to the Solid Waste Management Program at least thirty (30) days prior to such a change.
(G) The department may grant a general exemption for the beneficial use of type C fly ash generated primarily from the combustion of coal or other fossil fuels for beneficial use as soil amendment or for soil stabilization. The beneficial use of type C fly ash for soil amendment will be allowed if the total mixture of soil and ash used will not exceed six inches (6"). The beneficial use of type C fly ash for soil stabilization will be allowed provided the area disturbed is less than five (5) acres in size and the maximum depth of ash will not exceed two feet (2'). The applicant must renew the exemption when the source of coal is changed or there is a change in the processing of the coal which has an effect on the ash produced. The renewal must be submitted to the Solid Waste Management Program at least thirty (30) days prior to such a change.
(H) The department may grant an exemption for the beneficial use of type C fly ash and associated bottom ash and boiler slag in amounts greater than those specified in subsections (9)(F) and (G) above, as long as the beneficial use activity has a permit or exemption from the Missouri Clean Water Commission.
(I) The department may grant a general exemption for the beneficial use of bottom ash or boiler slag for daily cover in a landfill.
(J) Any request for a general or specific exemption listed above shall be accompanied by information that describes why the use is beneficial and an explanation/evaluation of the environmental impact associated with the beneficial use.

ENVIRONMENTAL QUALITY

CHAPTER 50

SOLID WASTE MANAGEMENT

Sub-Chapter 4

License and Operation Fees

Sub-Chapter 4

License and Operation Fees

17.50.401 PURPOSE (1) The purpose of this subchapter is to establish solid waste management system licensing requirements and fee schedules provided for in 75-10-115, and 75-10-221, MCA. (History: 75-10-115, 75-10-221, MCA; IMP, 75-10-115, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253; AMD, 2003 MAR p. 2857, Eff. 12/25/03.)

17.50.402 AUTHORITY (1) Authority for rules promulgated in this subchapter is provided for in 75-10-104, 75-10-105, 75-10-115, and 75-10-221, MCA, under which the board may establish and the department may collect fees for the management and regulation of solid waste disposal. These fees may include:

(a) a license application fee that reflects the cost of reviewing a new solid waste management system or substantial change to an existing facility;

(b) a flat annual license renewal fee that reflects a minimal base fee related to the fixed costs of an annual inspection and license renewal based upon the categorization of solid waste management facilities into separate classes identified by the following criteria:

(i) the quantity of solid waste received by the solid waste management facility;

(ii) the nature of the solid waste received;

(iii) the nature of the waste management occurring within the solid waste management system; and

(c) a tonnage-based fee on solid waste disposal. (History: 75-10-115, 75-10-204, 75-10-221, MCA; IMP, 75-10-115, 75-10-204, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253; AMD, 2003 MAR p. 2857, Eff. 12/25/03.)

17.50.403 DEFINITIONS Unless the context requires otherwise, in this subchapter the following definitions apply:

(1) "Barn waste" means the bedding, waste feed, manure and other animal excretions generated from the operation of a barn or feedlot.

(2) "Board" means the board of environmental review provided for in 2-15-3502, MCA.

(3) "Co-composting" means the simultaneous composting of two or more diverse waste streams.

(4) "Commercial waste" means waste generated from stores, offices, restaurants, food processing facilities, warehouses, and other non-manufacturing activities, and non-processing wastes such as office and packing waste generated at industrial facilities.

(5) "Composting" means the controlled biological decomposition of organic solid waste under aerobic conditions.

(6) "Contaminated soil" means soil, rocks, dirt, or earth that has been made impure by contact, commingling, or consolidation with organic compounds such as petroleum hydrocarbons. The term does not include soils contaminated solely by inorganic metals or soils that meet the definition of hazardous waste under ARM 17.54.201.

(7) "Department" means the department of environmental quality provided for in 2-15-3501, MCA.

(8) "Dispose" or "disposal" means the discharge, injection, deposit, dumping, spilling, leaking, or placing of any solid waste into or onto the land so that the solid waste or any constituent of it may enter the environment or be emitted into the air or discharged into any waters, including ground water.

(9) "Facility" means a manufacturing, processing or assembly establishment; a transportation terminal, or a treatment, storage or disposal unit operated by a person at one site. This definition does not include infectious waste incinerators or other facilities that:

(a) control the generation, transportation, treatment, storage or disposal of infectious waste, as that term is defined in 75-10-1003(4), MCA;

(b) are owned by and operated as a part of a profession, occupation, or health care facility that generates infectious waste and that is licensed by a board or department of the state; and

(c) do not control the treatment, storage or disposal of non-infectious solid waste.

(10) "Farm waste" means waste from farms that is not household waste, hazardous waste, or barn waste. It includes, but is not limited to, cull potatoes and spoiled crops such as hay or grain.

(11) "Household hazardous waste" means products commonly used in the home that due to corrosivity, ignitability, reactivity, toxicity, or other chemical or physical properties are dangerous to human health or the environment. Household hazardous waste includes, but is not limited to, cleaning, home maintenance, automobile, personal care, and yard maintenance products.

(12) "Household waste" means any solid waste derived from households, including single and multiple residences, hotels, and motels, crew quarters, campgrounds and other public recreation and public land management facilities.

(13) "Interim closure" means the period of time from the department's receipt of the certification required in ARM 17.50.530(1)(h) until the department verifies closure compliance under ARM 17.50.530.

(14) "Intermediate Class II facility" means a Class II facility with a planned capacity of more than 5,000 tons per year but not more than 25,000 tons per year.

(15) "Intermediate incinerator" means an incinerator facility with a planned capacity of more than 5,000 tons per year but not more than 25,000 tons per year.

(16) "Intermediate landfarm facility" means a landfarm facility that has more than 1,600 cubic yards but less than 8,000 cubic yards of contaminated soil, from single or multiple events, undergoing treatment and accepted for treatment at the facility at any time during a calendar year.

(17) "Landfarm facility" means a solid waste management system engaged in the controlled remediation through landfarm treatment technologies of non-hazardous contaminated soil that is not subject to regulation under the underground storage tank/leaking underground storage tank statutes and rules found in Title 75, chapter 11, MCA, and ARM Title 17, chapter 56.

(18) "Large composter operation" means a composting operation that does not meet the definition of small composter operation. Co-composters and facilities that accept sewage sludge for composting are large composter operations.

(19) "Major Class II facility" means a Class II facility with a planned capacity of more than 25,000 tons per year.

(20) "Major Class III facility" means a Class III facility that disposes of 1,000 tons or more of material per year.

(21) "Major Class IV facility" means a Class IV facility with a planned capacity of 1,000 tons or more per year.

(22) "Major incinerator" means an incinerator facility with a planned capacity of more than 25,000 tons per year.

(23) "Major landfarm facility" means a landfarm facility that has 8,000 cubic yards or more of contaminated soil, from single or multiple events, undergoing treatment and accepted for treatment at the facility at any time during a calendar year.

(24) "Minor Class II facility" means a Class II facility with a planned capacity of not more than 5,000 tons per year.

(25) "Minor Class III facility" means a Class III facility that disposes of less than 1,000 tons of material per year.

(26) "Minor Class IV facility" means a Class IV facility of less than 1,000 tons per year.

(27) "Minor incinerator" means an incinerator facility with a planned capacity of not more than 5,000 tons per year.

(28) "Minor landfarm facility" means a landfarm facility that has up to 1,600 cubic yards of contaminated soil from single or multiple events either undergoing treatment or accepted for treatment at the facility.

(29) "MSW composting" means municipal solid waste composting and is the controlled degradation of municipal solid waste. This includes the composting of municipal solid waste after some form of preprocessing to remove non-compostable inorganic materials.

(30) "Municipal solid waste landfill" means any publicly or privately owned landfill or landfill unit that receives household waste or other types of waste, including commercial waste, nonhazardous sludge, and industrial solid waste. The term does not include land application units, surface impoundments, injection wells, or waste piles.

(31) "One-time household hazardous waste collection event" means a collection of household hazardous waste from the public with a frequency no greater than annually at any given location.

(32) "One-time landfarm" means a landfarm facility for remediation of less than 1,600 cubic yards of non-hazardous contaminated soil generated from a single event, regardless of the source.

(33) "Person" means an individual, firm, partnership, company, association, corporation, city, town, local governmental entity, or any other governmental or private entity, whether organized for profit or not.

(34) "Post-consumer recycling" means the reuse of materials generated from residential and commercial waste, excluding recycling of material from industrial processes that has not reached the consumer, such as glass broken in the manufacturing process.

(35) "Recyclables" are materials that still have useful physical or chemical properties after serving their original purpose and that can, therefore, be reused or remanufactured into additional products.

(36) "Recycling" means the process by which materials otherwise destined for disposal are collected, reprocessed or remanufactured, and reused.

(37) "Recycling facility" means a facility, generally open to the public, that handles only source-separated or presorted material for the purpose of recycling either in bulk or in container(s) with a total site capacity of more than 40 cubic yards.

(38) "Remediate" means to treat contaminated soil to the point that it no longer poses a threat to human health or the environment.

(39) "Residue" is the materials remaining after processing, incineration, composting, or recycling have been completed. Residues are usually disposed of in sanitary landfills.

(40) "Resource recovery" means the recovery of material or energy from solid waste.

(41) "Resource recovery facility" means a facility at which solid waste is processed for the purpose of extracting, converting to energy, or otherwise separating and preparing solid waste for reuse.

(42) "Resource recovery system" means a solid waste management system which provides for the collection, separation, recycling, or recovery of solid wastes, including disposal of nonrecoverable waste residues.

(43) "Reuse" is the use of a product more than once in its same form for the same purpose; e.g., a soft drink bottle is reused when it is returned to the bottling company for refilling.

(44) "Small composter operation" means a composting operation that:

(a) has less than two acres of active working area;

(b) accepts less than 10,000 cubic yards annually; and

(c) produces less than 1,000 tons of compost annually; and either:

(i) accepts primarily yard waste, with a maximum of 25% barn or farm waste, by weight; or

(ii) accepts primarily farm or barn waste generated on-site.

(45) "Solid waste" means all putrescible and nonputrescible wastes including, but not limited to, garbage; rubbish; refuse; ashes; sludge from sewage treatment plants, water supply treatment plants, or air pollution control facilities; construction and demolition wastes; dead animals, including offal; discarded home and industrial appliances; and wood products or wood byproducts and inert materials. "Solid waste" does not mean municipal sewage, industrial wastewater effluents, mining wastes regulated under the mining and reclamation laws administered by the department, slash and forest debris regulated under laws administered by the department, or marketable byproducts.

(46) "Solid waste management system" means a system which controls the storage, treatment, recycling, recovery, or disposal of solid waste. Such a system may be composed of one or more solid waste management facilities. This term does not include hazardous waste management systems.

(47) "Source reduction" is the design, manufacture, acquisition, and reuse of materials so as to minimize the quantity and/or toxicity of waste produced. Source reduction prevents waste either by redesigning products or by otherwise changing societal patterns of consumption, use, and waste generation.

(48) "Source separation" is the segregation of specific materials at the point of generation for separate collection. Residences source separate recyclables as part of a curbside recycling program.

(49) "Substantial change" means any change in the operation, ownership, or siting of a facility in which review by the department takes more than 24 hours.

(50) "Storage" means the actual or intended containment of wastes, either on a temporary basis or for a period of years.

(51) "Transfer station" means a solid waste management facility that can have a combination of structures, machinery, or devices, where solid waste is taken from collection vehicles (public, commercial or private) and placed in other transportation units for movement to another solid waste management facility.

(52) "Transport" means the movement of wastes from the point of generation to any intermediate points and finally to the point of ultimate storage or disposal.

(53) "Treatment" means a method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any solid waste so as to neutralize the waste or so as to render it safer for transport, amenable for recovery, amenable for storage, or reduced in volume.

(54) "Yard waste" means leaves, grass clippings, prunings, and other natural organic matter discarded from yards, gardens, parks, etc. (History: 75-10-115, 75-10-204, 75-10-221, MCA; IMP, 75-10-115, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253; AMD, 2003 MAR p. 2857, Eff. 12/25/03.)

17.50.404 APPLICABILITY (1) Except as provided in 75-10-214, MCA, this subchapter applies to any person disposing of solid waste or operating or maintaining a solid waste management system involved in the storage, treatment, recycling, recovery, or disposal of solid waste. (History: 75-10-115, 75-10-204, 75-10-221, MCA; IMP, 75-10-115, 75-10-204, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253.)

Rules 17.50.405 through 17.50.409 reserved

17.50.410 ANNUAL OPERATING LICENSE REQUIRED (1) Except as provided in 75-10-214, MCA, no person may dispose of solid waste or operate or maintain a solid waste management system after July 1, 1991, without an operating license from the department. The license period is July 1 through June 30.

(a) When an applicant for a license to operate a solid waste management system submits to the department the license application required by ARM 17.50.508, the department will determine the applicable fee specified in Table 3 and send an invoice to the applicant within seven working days after receipt of the application. The department shall begin processing the application upon receipt of the invoiced amount.

(b) A licensee shall file an annual report with the department by April 1 of each year. The report must be filed on a form provided by the department.

(c) The department shall mail invoices for license renewal fees to licensees by June 15 of each year. The department shall calculate and assess license renewal fees in accordance with Table 1, "Solid Waste Fees." A solid waste management facility that does not fit into one of the categories listed in Table 1 must be assessed fees no greater than major Class II landfill facilities. A licensee shall pay the assessed fee by July 31 of each year, but may submit the fees to the department quarterly, with the first payment due on or before July 31 of each year, and subsequent quarterly payments due on October 31, January 31, and April 30. Failure to submit payments when due subjects the licensee to the provisions of 75-10-116, MCA.

(d) The solid waste fee specified in Table 1 is prorated by quarter for the year in which a license is originally issued.

(2) The department shall mail renewal application forms to licensees by February 1 of each year. Application for renewal of a solid waste management system license must be submitted to the department by April 1 of each year. Licensees who are required to apply for license renewal and to pay fees under this subchapter, and who fail to submit the appropriate fees within the specified time are subject to the provisions of 75-10-116, MCA.

(3) Upon payment of the transfer fee shown in Table 2, "License Transfer Fee", the department will issue a new operating license to a person acquiring rights of ownership, possession or operation of a licensed solid waste management system. Any solid waste management facility that does not fit into one of the categories listed in Table 2 shall be assessed transfer fees no greater than major Class II landfill facilities. Department approvals on operating plans are not transferable prior to licensing.

(4) License fees will end when the department declares the facility "closed". The license fee will be prorated on a quarterly basis by the department for the year of closure.

(5) Except for prorated fees when the department declares a facility "closed", license fees are not refundable.

(6) The department shall license the following free of charge:

(a) persons conducting one-time household hazardous waste collection events;

(b) small composter operations; and

(c) recycling facilities that accept waste from more than one source.

(7) Fees at a facility in interim closure must be held in abeyance by the department. If the department determines, pursuant to ARM 17.50.530, that closure was not completed in compliance with the closure plan, the owner or operator shall pay the fees held in abeyance to the department. An owner or operator of a facility determined by the department not to have completed closure in compliance with the facility's closure plan shall, after the owner or operator believes that closure has been completed in compliance with the closure plan, submit a new certification as required in ARM 17.50.530(1)(h). The facility is then again in interim closure, pending re-inspection and verification of closure compliance by the department.

TABLE 1. SOLID WASTE FEES

FACILITY	ANNUAL LICENSE FEE	DISPOSAL FEE/TON
Major Class II facility	$4,200	$0.40
Intermediate Class II facility	$3,600	$0.40
Minor Class II facility	$3,000	$0.40
Major Class III facility	$1,200	$0.40
Minor Class III facility	$ 600	$0.40
Major Class IV facility	$1,200	$0.40
Minor Class IV facility	$ 600	$0.40
Major incinerator	$4,200	$0.40
Intermediate incinerator	$3,600	$0.40
Minor incinerator	$3,000	$0.40
Major landfarm facility	$1,800	$0.40
Intermediate landfarm facility	$1,200	$0.40
Minor landfarm facility	$ 600	$0.40
One-time landfarm	$ 0	$0.00
Transfer station (≥10,000 tons/yr)	$1,260	$0.00
Transfer station (<10,000 tons/yr)	$ 480	$0.00
Large composter operation	$1,800	$0.00
Small composter operation	$ 0	$0.00

TABLE 2. LICENSE TRANSFER FEE

FACILITY	TRANSFER FEE
Major Class II facility	$600
Intermediate Class II facility	$480
Minor Class II facility	$360
Major Class III facility	$240
Minor Class III facility	$180
Major Class IV facility	$240
Minor Class IV facility	$180
Major incinerator	$600
Intermediate incinerator	$480
Minor incinerator	$360
Major landfarm facility	$600
Intermediate landfarm facility	$480
Minor landfarm facility	$360
One-time landfarm	$ 0
Transfer station (≥10,000 tons/yr)	$480
Transfer station (<10,000 tons/yr)	$300
Large composter operation	$480
Small composter operation	$ 0

TABLE 3. APPLICATION REVIEW FEE SCHEDULE

FACILITY	REVIEW FEE
Major Class II facility	$12,000
Intermediate Class II facility	$ 9,000
Minor Class II facility	$ 6,000
Major Class III facility	$ 3,600
Minor Class III facility	$ 2,400
Major Class IV facility	$ 3,600
Minor Class IV facility	$ 2,400
Major incinerator	$12,000
Intermediate incinerator	$ 9,000
Minor incinerator	$ 600
Major landfarm facility	$ 3,600
Intermediate landfarm facility	$ 2,400
Minor landfarm facility	$ 1,200
One-time landfarm (≥800 cubic yds)	$ 500
One-time landfarm (<800 cubic yds)	$ 200
Transfer station (≥10,000 tons/yr)	$ 8,400
Transfer station (<10,000 tons/yr)	$ 4,800
Large composter operation	$ 3,600
Small composter operation	$ 0

(History: 75-10-115, 75-10-204, 75-10-221, MCA; IMP, 75-10-115, 75-10-204, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253; AMD, 2003 MAR p. 2857, Eff. 12/25/03; AMD, 2004 MAR p. 1949, Eff. 8/20/04.)

17.50.411 DISPOSAL FEE (1) Except as provided for in 75-10-214, MCA, and in fee Tables 1, 2 and 3 of ARM 17.50.410, any person licensed to dispose of or incinerate solid waste shall submit to the department an annual fee of $0.40 per ton of solid waste incinerated or disposed of at the licensed facility during the previous calendar year. This fee must be submitted to the department in addition to the flat annual license renewal fees and is subject to the schedule in Table 1 of ARM 17.50.410.

(2) The department shall calculate the fee by using one of the following methods:

(a) actual weight of waste managed as reported in the annual report required by ARM 17.50.410; or

(b) estimated weight based upon the volume of waste managed as reported in the annual report required by ARM 17.50.410.

(3) For the purpose of estimating weight based upon the volume of waste managed, the following formulas apply:

(a) one cubic yard of loose refuse (residential or commercial) equals 300 pounds; and

(b) one cubic yard of compacted refuse (packer truck) received at the facility equals 700 pounds.

(c) The average tire weighs 20 pounds.

(4) In addition to the tonnage-based fee specified in (1), any person licensed to dispose of or incinerate solid waste shall submit to the department a quarterly fee of $0.27 per ton of solid waste generated outside Montana and disposed of or incinerated within Montana. All facilities that accept wastes from outside Montana for the purpose of incineration or disposal must weigh the wastes accepted at that facility to accurately determine the volume accepted.

(5) Each facility receiving waste generated outside Montana must record the weights of all out-of-state waste received and such records must be placed in the operating record and must be reported to the department in the annual report specified in ARM 17.50.412. (History: 75-10-115, 75-10-204, 75-10-221, MCA; IMP, 75-10-115, 75-10-118, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; AMD, 1993 MAR p. 1931, Eff. 8/13/93; TRANS, from DHES, 1995 MAR p. 2253; AMD, 2003 MAR p. 2857, Eff. 12/25/03.)

17.50.412 ANNUAL REPORTING, CONSOLIDATED OPERATIONS, LICENSE CLASSIFICATIONS (1) Any person owning or operating a facility that manages solid waste shall submit to the department by April 1 of each year, on a form provided by the department, the following information:

(a) service areas and population of those areas;

(b) total tonnage of solid waste received and disposed of during the previous year. Facilities that do not operate scales and that measure the volume of waste received and disposed of will use the following conversions to determine tonnage:

(i) loose refuse (residential and commercial) = 300 pounds per cubic yard;

(ii) compacted refuse (packer truck) = 700 pounds per cubic yard.

(c) for a landfarm facility, a report summarizing the total volume in cubic yards of contaminated soils accepted for treatment and under treatment during the previous year as demonstrated by compilation of waste acceptance forms, bills of lading, or trip tickets;

(d) for a large or small composter facility, a report summarizing:

(i) the kinds of materials accepted;

(ii) the total volume in cubic yards of material accepted; and

(iii) the tons of compost produced.

(e) for facilities licensed primarily for the storage, treatment, processing, or disposal of waste tires, the kind and number of tires received by the facility and the number of tires processed, treated, disposed of, or removed from the facility during the previous year.

(2) The department may not assess additional fees for composting, household hazardous waste collection, or landfarm operations conducted at a licensed facility that disposes of Group II wastes through landfilling if those operations are:

(a) conducted on the same site as the landfill; and

(b) included in the facility's approved plan of operation.

(3) Fees for the following special categories of Class IV units and facilities are as follows:

(a) for a Class IV unit at a Class II facility there is no additional fee. However the design and operation of the Class IV unit must be included in the facility's design and operation plan and the disposal fee per ton applies to wastes placed in the Class IV unit.

(b) for a Class III facility that applies to upgrade to Class IV, the application review fee is 50% of the respective fee specified for the appropriate Class IV facility in Table 3 of ARM 17.50.410. (History: 75-10-115, 75-10-204, 75-10-221, MCA; IMP, 75-10-115, 75-10-204, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253; AMD, 1997 MAR p. 1031, Eff. 6/24/97; AMD, 2003 MAR p. 2857, Eff. 12/25/03.)

Rules 17.50.413 and 17.50.414 reserved

17.50.415 APPLICATION REVIEW FEES--INITIAL LICENSE OR SUBSTANTIAL CHANGE TO AN EXISTING FACILITY (1) Application for an initial license for a solid waste management system or substantial change to an existing solid waste management system may be submitted at any time during the license base year. Licenses issued during the base year shall expire at the end of that license base year. The applicant for initial licensing of a facility shall submit the appropriate fees as shown in Table 3, "Application Review Fee Schedule" of ARM 17.50.410. Any solid waste management system that does not fit into one of the categories shall be assessed fees no greater than major Class II landfill facilities.

(2) Application for substantial change to an existing solid waste management system shall be subject to the fee schedule established for review of new or substantially changed applications contained in Table 3, "Application Review Fee Schedule". (History: 75-10-115, 75-10-204, MCA; IMP, 75-10-115, 75-10-204, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253.)

17.50.416 CONSOLIDATION OF LICENSES; FEES FOR CONSOLIDATED LICENSES (1) More than one solid waste management facility may be licensed as a part of the same solid waste management system, subject to the following limitations:

(a) No more than 1 landfill may be consolidated under 1 solid waste management system license;

(b) No more than 1 incinerator may be consolidated under 1 solid waste management system license;

(c) A landfill and an incinerator may not be consolidated under the same license;

(d) All solid waste management facilities consolidated under 1 solid waste management system license must manage the same or primarily the same solid waste stream;

(e) All solid waste management facilities consolidated under the same solid waste management system license must be owned or operated by the same person; and

(f) All solid waste management facilities consolidated under the same solid waste management system license must be included in the solid waste management system's approved plan of operation.

(2) The limitations provided in (1)(a), (b), and (c) above do not apply to facilities co-located at a single site or at contiguous sites.

(3) Except as otherwise provided in ARM 17.50.412(4) and in (4) below, solid waste management systems containing more than one solid waste management facility shall be subject to fees equal to the sum of the following:

(a) the applicable fees calculated in accordance with Tables 1, 2 and 3 of ARM 17.50.410 for the facility which the department, after consultation with the applicant or licensee,

determines to be the major facility included under the license; and

(b) one-half of the applicable fees calculated in accordance with Tables 1, 2 and 3 of ARM 17.50.410 for all other facilities consolidated under the same license.

(4) The department may not assess the per ton disposal fee of Table 1, ARM 17.50.410, for the landfill disposal of incinerator residues where the incinerator facility and the landfill facility are both under a solid waste management system license held by a single person and the per ton fee is assessed for all of the solid wastes received for treatment by the incinerator facility. (History: 75-10-115, 75-10-204, MCA; IMP, 75-10-115, 75-10-204, 75-10-221, MCA; NEW, 1992 MAR p. 1377, Eff. 6/26/92; TRANS, from DHES, 1995 MAR p. 2253; AMD, 2003 MAR p. 2857, Eff. 12/25/03.)

~~including the dimensions, elevations, and floor plans for these structures and areas, including the general process flow; and~~

~~(m) the design details and specifications of the facility's drainage, septic and water supply systems;~~

~~(15) other maps, drawings related to the design or environmental impact of the proposed facility;~~

~~(16) name and address of individual operator;~~

~~(17) proposed operation and maintenance plan;~~

~~(18) other information necessary for the department to comply with the Montana Environmental Policy Act (MEPA), Title 75, chapter 1, parts 1-3, MCA;~~

~~(19) closure and post-closure care plans; and~~

~~(20) financial assurance required by ARM 17.50.540.~~ ~~(History: 75-10-204, 75-10-221, MCA; IMP, 75-10-204, 75-10-221, MCA, Eff. 12/31/72; AMD, Eff. 7/5/74; AMD, 1977 MAR p. 1170, Eff. 12/24/77; AMD, 1993 MAR p. 1645, Eff. 10/9/93; TRANS, from DHES, 1995 MAR p. 2253; AMD, 1997 MAR p. 1031, Eff. 6/24/97.)~~

17.50.509 OPERATION AND MAINTENANCE PLAN REQUIREMENTS

(1) Each proposed solid waste management system will be evaluated on a case-by-case basis, taking into consideration the physical characteristics of the system, the types and amounts of wastes, and the operation and maintenance plan for that system.

(2) The operation and maintenance plan shall include:

(a) if for use by the public, what days and times the components of the system will be open;

(b) how access and traffic will be restricted or controlled;

(c) proposed equipment the system will utilize;

(d) general description of the proposed solid waste management system;

(e) maintenance schedule concerning solid waste handling and disposal;

(f) provision for litter control, if applicable;

(g) types of waste the proposed facility will accept; and

(h) plan for reclamation of the disposal facility and the land's ultimate use as required under ARM 17.50.530.

(i) any methane monitoring plans required under ARM 17.50.511;

(j) any ground water monitoring plan required under ARM 17.50.701, et seq.; and

(k) any plans required for composting or for handling of special waste streams. (History: 75-10-204, MCA; IMP, 75-10-204, MCA; Eff. 12/31/72; AMD, Eff. 7/5/74; AMD, 1977 MAR p. 1170, Eff. 12/24/77; AMD, 1993 MAR p. 1645, Eff. 10/9/93; TRANS, from DHES, 1995 MAR p. 2253.)

PERMITING AND COMPLIANCE DIVISION
WASTE AND UNDERGROUND TANK MANAGEMENT BUREAU
SOLID WASTE SECTION
PO BOX 200901
HELENA, MT 59620-0901
Phone: (406) 444-5300
Fax: (406) 444-1374

TO: Prospective Licensees of a Small Composter Operation.

The enclosed checklist and license application form is for anyone wishing to conduct a small compost operation. Please number or label the attachments or enclosures that you have included with your application form and note those which are included. Remember to return the checklist with your application.

Licensing is required for small compost operations which receive wastes from more than one source. To obtain a license as a small compost facility, **all** of the following requirements must be met:

1) There must be less than two acres of active working area.
2) The operation must accept yard waste only. Yard waste may contain no more than 25% barn waste by volume.
3) The operation must accept less than 10,000 cubic yards of material annually.
4) There must be less than 1,000 tons of compost produced annually.

Large composters must also be licensed. Any facility which does not meet all of the requirements for small composters, or which accepts sewage sludge, or composts two or more diverse waste streams, is a large composter.

The licensing of this solid waste management system is a quick and easy process. **Small Composter Licenses are issued free of charge.** The Department will review each submitted application to ensure that it is complete. **Unless all the needed enclosures are included, it is unlikely that your license application will be considered complete**. If additional information is needed, the Department will notify the applicant through a **Request for More Information** that will specify what additional information is required.

All solid waste management facilities in Montana must be licensed. Licensing of small composters is done primarily so that the Department can monitor efforts to achieve legislative waste reduction goals. In addition, it provides the Department and the citizens with information on where these activities are being conducted. This facilitates information transfer on waste management alternatives.

Under Montana statutes, the department has continuing authority to inspect solid waste management systems. Inspections may be conducted only during reasonable hours and only after presentation of appropriate credentials identifying the inspector as a duly authorized employee of the department.
[See Section 75-10-205, MCA.]

Thank you for your cooperation. If we can be of any assistance in this process, please contact us at the number listed above.

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DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING AND COMPLIANCE DIVISION
WASTE AND UNDERGROUND TANK MANAGEMENT BUREAU
SOLID WASTE PROGRAM
P.O. BOX 200901
HELENA, MT 59620-0901
PHONE: 406-444-5300
FAX: 406-444-1374

SMALL COMPOSTER FACILITY LICENSE APPLICATION

Section 1 – General Information

Applicant Name:

Business Name:

Applicant Title:

Business Mailing Address:

City: *Zip:*

Phone:

Fax:

Email:

Section 2 – Site Location Information

Proposed Site Location/Physical Address:

Site Legal Description (Location): *(Section, Township, and Range [to nearest ¼ Section])*

Latitude/Longitude:

Is applicant listed above the owner of the facility property: ☐ ***YES*** ☐ ***NO***
(Attach proof of ownership. If applicant is not the legal landowner, provide current landowner information below)

Landowner Name:

Landowner Mailing Address:

City: ***State:*** ***Zip:***

Landowner Phone Number:

Total acreage of proposed facility: *Total acreage available for composting:* *(limited to 2 acres)*

Section 3 – Attachments

Small Composter Site Operation and Maintenance Plan (required)

An operation and maintenance plan MUST BE INCLUDED that provides provisions for EACH of the following items:

- **(a)** Schedule of Operation
- **(b)** Site access controls;
- **(c)** Types and sources of raw materials to be composted, including a description of the source, quality, and quantity of the feedstock;
- **(d)** Daily traffic flow and procedures for unloading trucks
- **(e)** Procedures for operation during wind, heavy rain, snow, or freezing conditions;
- **(f)** List of equipment available for use;
- **(g)** Description of any seed material or compost starter used
- **(h)** Description of the ultimate use for the stabilized compost;
- **(i)** Method of aeration;
- **(j)** Method of removal from the site and a plan for the disposal of stabilized compost that cannot be used in the expected manner;
- **(k)** Description of personnel required and their responsibilities;
- **(l)** Surface water run-on and run-off control;
- **(m)** Calculation of 24-hour, 25-year storm run-off event;
- **(n)** Description of any monitoring that will occur involving the composting process or the site;
- **(o)** A contingency plan that outlines steps taken in the event (i) unapproved materials are delivered to the site, (ii) odors are detected, (iii) groundwater contamination is identified, or (iv) other undesirable conditions are noted.
- **(p)** For windrow systems, a detailed description of the windrow construction;
- **(q)** For in-vessel systems, a process flow diagram of the entire process

MAPS (required)

The following maps MUST BE INCLUDED that provide the following information:

(a) A site map that delineates the boundary lines of:

- (i) Composting area in relation to property boundary;
- (ii) Composting facility drainage with contour intervals no greater than 5-feet, including run-on and run-off controls, ditches, and swales;
- (iii) Direction of prevailing winds;
- (iv) Location of access roads and on-site roads;
- (v) Location of property boundaries and names/addresses of all contiguous landowners;
- (vi) Location of water supply wells, buildings, residences, surface water bodies, and drainage swales within 1,000-feet of the site; and,
- (vii) Identification of all current and future facility buildings.

(b) A vicinity map of 1:24,000 scale that delineates the following areas within one-mile of the facility boundaries, including:

- (i) Zoning and land use;
- (ii) Residences;
- (iii) Surface waters;
- (iv) Access roads, bridges, railroads, airports;
- (v) Historic sites and other manmade or natural features relating to the project.

Section 4 – Certifications

APPLICANT CERTIFICATION – OWNER SIGNATURE

I am the party responsible for operation of this proposed facility. I certify that the abovedescribed solid waste management system will be constructed and operated in accordance with Sections 75-10-201 through 75-10-233, Montana Code Annotated (MCA), the rules adopted pursuant thereto, and in accordance with conditions which have or may be imposed in the license. I have personally examined and am familiar with the information in this application and all attached documents. To the best of my knowledge, information, and belief, the submitted information is accurate and complete.

Applicant printed name

_____ _____

Applicant Signature *Date*

LOCAL PLANNING AND ZONING CERTIFICATION

(To be signed by appropriate local government official having knowledge of local zoning ordinances)

I hereby certify that the site of the planned solid waste management system is in accordance with local governmental zoning and ordinances.

(*Printed name of local official*) _____ (*Title*)

_____ _____

(*Signature of local official*) (*Date*)

NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

ENVIRONMENTAL GUIDANCE DOCUMENT

06-203 **10-2007**

Permitting and Operating Compost Sites

(In Accordance with Title 132 Regulations)

A "solid waste compost site" is defined in Title 132 – Integrated Solid Waste Management Regulations as a tract of land, location, area or premises used for composting solid waste. Depending on the amount and type of materials composted, responsible persons may be exempt from permitting requirements, may be required to follow certain operational criteria, or may need a permit. If a permit is required, the applicant must submit to the department documentation addressing the satisfactory completion of the local siting process along with the compost permit application. (Please refer to the guidance document entitled "Local Siting Approval for Solid Waste Management Facilities.")

A permit is required for:

- Sites receiving more than 100,000 cubic yards per year (cy/y) of yard waste;
- Sites receiving material other than yard waste or livestock waste in quantities greater than 1,000 cy/y; or
- Sites receiving more than 20,000 cy/y of livestock waste other than that generated by the property owner.

Partial exception facilities:

- Sites receiving yard waste in quantities between 20,000 and 100,000 cy/y;
- Sites receiving livestock waste other than that generated by the property owner in quantities between 1,000 and 20,000 cy/y;
- Sites that receive under 1,000 cy/y of material other than yard waste; and
- Sites receiving between 20,000 cy/y and 100,000 cy/y of yard waste in combination with less than 1,000 cy/y of other materials.

Partial exception compost facilities must be operated according to requirements found in Chapter 2, Section 003.02 of Title 132. A permit is not required for these facilities, but the following criteria must be met:

- Operations must not constitute a hazard or a threat to human health or the environment;
- Operations must implement effective litter and disease vector control programs;
- Operations must comply with applicable air quality standards developed under Title 129 – Nebraska Air Quality Regulations;

- Operations must prevent discharges of surface water runoff to waters of the State; and
- Operations must comply with storage capacity and designated storage area restrictions.

Permit exception facilities:

The following facilities do not require a permit and are not required to operate under specific operational criteria as long as these facilities are operated in a manner that is protective of human health and the environment.

- Sites receiving yard waste in quantities less than 20,000 cy/y;
- Sites receiving less than 20,000 cy/y yard waste in combination with under 1,000 cy/y of other materials; and
- Livestock waste generated and composted at the owner's operation when that operation is in compliance with Title 130 –Livestock Waste Control Regulations.

PERMIT REQUIREMENTS

The following criteria must be considered and addressed when permitting a solid waste compost facility.

Locational Criteria (Title 132, Chapter 6, Section 002)
Locational criteria that must be considered include:

- Impact upon waters of the State;
- Distance from existing right–of-way of any state, interstate or federal highway must be more than 1,000 feet;
- Floodplains; and
- Wetlands.

Construction/Design Criteria (Title 132, Chapter 6, Section 003)
The construction and design of the facility must:

- Be protective of human health and the environment;
- Be protective of waters of the State; and
- Provide a system designed for collection, containment, treatment, monitoring and/or use of all waters within the site confines.

Operational Criteria (Title 132, Chapter 6, Section 004)

- Operations must not constitute a hazard or a threat to human health or the environment;
- Operations must implement effective litter and disease vector control programs;
- Operations must comply with applicable air quality standards developed under Title 129 – Nebraska Air Quality Regulations;
- Operations must prevent discharges of surface water runoff to waters of the State; and
- Operations must comply with storage capacity and designated storage area restrictions.

- Procedures for excluding the receipt of hazardous waste or Toxic Substances Control Act- regulated PCB wastes must be implemented;
- Public access to the site must be controlled;
- Operations must provide a plan that describes the methods of operations at the facility;
- Operations must provide analytical data of the site soils for leachate detection; and
- Operations must provide analytical data of material to be composted and/or land applied.

Closure Criteria (Title 132, Chapter 6, Section 005)
Operations must provide:

- A description of the activities required to close the site in a manner protective of human health and the environment;
- A description of the post-closure plans for the inactive site;
- Methods or means for notifying facility users of the closure of the operation; and
- A description of the location where all materials remaining at the site will be disposed, when applicable.

Financial Assurance Criteria (Title 132, Chapter 8)

Financial assurance is required and is applicable to the owners or operators of all permitted solid waste compost sites except owners or operators who are:

- State or federal government entities whose debts and liabilities are debts and liabilities of a state or the United States; or
- A municipality, county or solid waste agency.

A detailed written estimate of the cost of hiring a third party to close the facility and properly dispose of all materials or wastes left at the site must be provided. This estimate must include the cost of disposing of the maximum amount of accumulated waste or materials that would ever be stored at the facility at any one time. The financial assurance mechanism must be obtained prior to the initial receipt of waste.

Recordkeeping Requirements (Title 132, Chapter 2, Section 007)
An owner or operator of a permitted solid waste compost facility must maintain an operating record near the facility, which includes:

- All applicable permits;
- Locational criteria;
- Construction/Design criteria;
- Operational criteria;
- Closure and Post-Closure criteria, and
- Financial Assurance criteria.

Permit Application Fees (Title 132, Chapter 9)

Permits to operate solid waste compost sites are issued for five-year terms. Non-refundable fees in the following amounts must be paid in full at the time of application

for a permit to operate a facility, for renewal of a permit, or for a major modification to any permitted facility.

	Initial	Major Modification	Renewal	Initial Application Existing Facility
Solid Waste Compost Site	$3,100	$1,500	$350	$310

If more than one type of permitted facility is located on the same premises, refer to Title 132, Chapter 9, Section 003 for fee information.

Annual Operating Fees (Title 132, Chapter 10)]

Annual operating fees for permitted solid waste compost facilities must be submitted to the Department by October 1 of each year following the first full year of operation.

The annual operating fee for a solid waste compost facility is $2,100.

If more than one type of solid waste facility is located on the same premises, refer to Title 132, Chapter 10, Section 005 for fee information.

Permit Exception	Partial Exception	Permit Required
1. Livestock Waste Compost Sites A. Uses livestock waste generated by property owner and is in compliance with Title130- Livestock Waste Control Regulations 2. Solid Waste Compost Sites A. Under 20,000 cy/y* of yard waste only B. Under 20,000 cy/y of yard waste in combination with under 1,000 cy/y of other material **cy/y = cubic yards per year*	1. Livestock Waste Compost Sites A. Receives between 1000 cy/y* and 20,000 cy/y of livestock waste other than generated by the property owner 2. Solid Waste Compost Sites A. Between 20,000 cy/y and 100,000 cy/y of yard waste only B. Between 20,000 cy/y and 100,000 cy/y yard waste in combination with under 1,000 cy/y of other material C. Under 1,000 cy/y of material other than yard waste	1. Livestock Waste Compost Sites A. Receives over 20,000 cy/y* of livestock waste other than generated by the property owner 2. Solid Waste Compost Sites A. Over 100,000 cy/y yard waste only B. Over 1,000 cy/y of material other than yard waste

Produced by: Nebraska Department of Environmental Quality, P.O. Box 98922, Lincoln, NE 68509-8922; phone (402) 471-2186. To view this, and other information related to our agency, visit our web site at ***www.deq.state.ne*****.**

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NAC 444.670 System to process waste: Compost plant. (NRS 444.560)

1. A compost plant must not be established until the site location, design of the plant and proposed method of operation have been approved by the solid waste management authority and a permit to operate the compost plant has been issued in accordance with the requirements of NAC 444.6405 to 444.6435, inclusive. An application for such a permit must include:

(a) A description of the materials to be composted, including a characterization of the waste sufficient to evaluate the potential for biological or chemical contaminant migration in the event of a release;

(b) A layout diagram of the plant showing property boundaries, fencing, roads, principal processing equipment, storage areas for stockpiles of incoming materials and intermediate and final products;

(c) A description of the equipment and personnel necessary to operate the plant;

(d) A description of the process, with a schematic diagram, that shows loading and unloading areas and traffic flow routing;

(e) The maximum inventory, by volume, of feed stocks, intermediate materials and products;

(f) Proposed product specifications and a program to verify conformance with the specifications;

(g) A program for monitoring the parameters of the process, including moisture content and temperature;

(h) A description of the final use for the compost or the available markets for the compost;

(i) Provisions for fire prevention and control;

(j) Provisions for odor prevention and control;

(k) Provisions for the control of surface water runon and runoff;

(l) Provisions for litter prevention and control;

(m) Contingency plans to be followed in the event of emergencies and unforeseen circumstances that may occur at the facility. The plans must provide, at a minimum, for an organized and coordinated course of action to be taken and address the following situations:

(1) A fire at the facility;

(2) A release of hazardous or toxic materials; and

(3) The shutdown of the facility for any reason; and

(n) Provisions for proper disposal of by-products.

2. Any person or municipality which maintains or operates a compost plant shall maintain and operate the site in conformance with the following standards:

(a) If the compost plant accepts municipal solid waste and is not fully contained within a building, a buffer zone must be maintained of at least 500 feet from the adjoining property and 1,000 feet from any public roads.

(b) Incoming solid waste must be confined to as small an area as practicable. At the conclusion of each day of operation, all windblown material resulting from the operation must be collected and returned to the area.

(c) Materials resulting from composting and offered for sale:

(1) Must meet the requirements relating to the maximum allowable density of fecal coliform or *Salmonella* sp. bacteria for Class A sewage sludge set forth in 40 C.F.R. § 503.32(a);

(2) Must not reheat upon standing;

(3) Must be innocuous; and

(4) Must contain no sharp particles which could cause injury to persons handling the compost.

(d) By-products removed during the processing must be handled in a sanitary and nuisance-free manner and disposed of at a facility approved by the solid waste management authority.

3. A compost plant shall comply with the plans for the design and operation of the facility approved by the solid waste management authority. A compost plant shall not:

(a) Contribute to the pollution of the air or waters of this State;

(b) Cause an impairment of the environment;

(c) Cause a health or safety hazard to employees of the facility or the general public; or

(d) Cause a public nuisance.

4. The solid waste management authority may suspend or revoke a permit to operate a compost plant if the owner or operator of the facility fails to comply with the provisions of NAC 444.570 to 444.7499, inclusive.

[Environmental Comm'n, Solid Waste Mgt Reg. §§ 4.2.1-4.2.2.4, eff. 9-21-77]—(NAC A by R105-02, 10-18-2002)

NAC 444.6405 Permit to operate disposal site: Requirement; exemptions; application. (NRS 444.560)

1. Except as otherwise provided in subsection 2, the owner or operator of a disposal site must obtain a permit to operate the site from the appropriate solid waste management authority.

2. The following sites are exempt from the provisions of subsection 1:

(a) Composting bins which are operated at a personal residence for personal use; and

(b) Municipal composting operations for yard wastes.

3. The owner or operator of a proposed disposal site must obtain the permit before the construction or operation of that site. An application for the permit must be submitted at least 180 days before the anticipated start of construction, to allow sufficient time for the review and issuance of the permit.

(Added to NAC by Environmental Comm'n, eff. 11-8-93; A 11-9-95; 10-3-96; R105-02, 10-18-2002)

NAC 444.641 Permit to operate disposal site: Evaluation of application; notice to applicant concerning completeness and compliance; notice of intent to issue or deny application; period for public comment. (NRS 444.560)

1. A solid waste management authority shall, within 45 days after receiving an application for a permit to operate a disposal site, notify the applicant as to whether the application is complete or deficient in content. A determination of completeness must be based on whether the application contains all specified documents and supporting information required by NAC 444.677, 444.705 or 444.733, as applicable. The solid waste management authority may require the submittal of any such additional documents or information as it deems necessary and may specify the period within which the documents or information must be submitted to the authority.

2. If the solid waste management authority determines that an application is complete, the authority shall evaluate the merits of the application to determine if the application is in compliance with all applicable statutes and regulations. If the solid waste management authority determines that the application does not comply with all applicable statutes and regulations, it shall mail a notice to the applicant. The notice must specify:

(a) Each statute or regulation with which the applicant has failed to comply;

(b) Any documents or other information which the applicant is required to submit to the authority; and

(c) The period within which the applicant is required to submit to the authority the documents or other information requested pursuant to paragraph (b).

3. Upon completion of the evaluation, the solid waste management authority shall prepare and issue:

(a) A notice of intent to issue or deny the issuance of the permit. The notice must:

(1) Be sent to the applicant and the local governing body in the area in which the disposal site is to be located, and published in a newspaper of general circulation for the area in which the site is located;

(2) Summarize the action to be taken by the solid waste management authority;

(3) State that the authority will accept comments from the general public for 30 days after the date that the notice is issued; and

(4) Describe the procedure for obtaining copies of the documents and comments submitted with the application.

(b) A factual sheet which describes the proposed facility, the proposed action, the availability of the documents submitted with the application, and the procedure for public review and comment.

(Added to NAC by Environmental Comm'n, eff. 11-8-93; A 10-3-96)

NAC 444.6415 Permit to operate disposal site: Response to notice of intent to issue or deny application; request for public hearing; notice of public hearing. (NRS 444.560)

1. An applicant for a permit to operate a disposal site and any other interested person may, within 30 days after the notice of intent is issued pursuant to NAC 444.641:

(a) Submit a written request to the solid waste management authority for a public hearing on the proposed issuance or denial of the permit which must state the nature of the issues which the requester intends to raise at the hearing; or

(b) Submit written comments on the proposed issuance or denial of the permit to the solid waste management authority.

2. The solid waste management authority:

(a) May schedule a public hearing if requested pursuant to this section or on its own initiative; and

(b) Shall publish a notice of a hearing scheduled pursuant to this section at least 30 days before the date of that hearing.

3. The solid waste management authority may extend the period for public review as it deems necessary.

(Added to NAC by Environmental Comm'n, eff. 11-8-93)

NAC 444.6419 Permit to operate disposal site: Response by solid waste management authority to written comments concerning proposed issuance or denial of permit; publication of written comments. (NRS 444.560) The solid waste management authority shall issue a statement responding to the written comments on the proposed issuance or denial of a permit to operate a disposal site which are received during the period for public review. A copy of the statement must be sent to the applicant, the person who submitted the written comments, if different from the applicant, and all other persons who specifically request, in writing, a copy of the statement. A copy of the statement must be made available for inspection by the general public at a location specified by the solid waste management authority.

(Added to NAC by Environmental Comm'n, eff. 11-8-93)

NAC 444.6425 Permit to operate disposal site: Duties of solid waste management authority after period for public review; modification or placement of conditions based on public comments. (NRS 444.560)

1. Within 30 days after the end of the period for public review, the solid waste management authority shall:

(a) Issue a permit to operate a disposal site; or

(b) Deny the application and send written notice to the applicant which details the reasons why the application is being denied. The written notice must set forth the time and procedure by which the applicant may appeal the decision of the solid waste management authority.

2. The solid waste management authority may modify or place conditions on a permit issued pursuant to this section based on public comments received concerning the permit.

(Added to NAC by Environmental Comm'n, eff. 11-8-93; A by R105-02, 10-18-2002)

NAC 444.643 Permit to operate disposal site: Issuance; revocation or suspension; requirements for transfer to subsequent owner or operator. (NRS 444.560) A permit to operate a disposal site issued by a solid waste management authority:

1. Must be issued for the life of the design of the disposal site;

2. May be modified by the solid waste management authority if the statutes or regulations upon which the issuance of the permit is based change, or if a modification is otherwise necessary to protect public health and safety and the environment;

3. Must specify the amount and type of solid waste which the disposal site may receive that is consistent with the design and operational plans of the site;

4. Must be issued for the area and volume of waste specified in the application, if the disposal site is a municipal solid waste landfill unit or Class III site;

5. May be revoked or suspended if written notice is given by the solid waste management authority and the disposal site does not remain in compliance with the applicable statutes and regulations; and

6. Must be issued to a specific operator or owner. A permit may be transferred to a subsequent owner or operator only if the solid waste management authority approves the transfer based on documentation of financial responsibility provided by the new owner or operator.

(Added to NAC by Environmental Comm'n, eff. 11-8-93)

NAC 444.6435 Permit to operate disposal site: Request for modification; conditions requiring public notice and review. (NRS 444.560) A permit to operate a disposal site may be modified upon the request of the owner or operator of the disposal site and approval of the solid waste management authority. A proposal to modify a permit may be subject to public notice and 30 days of public review if the proposed modification includes:

1. An increase in the amount or type of solid wastes managed at the site which is inconsistent with the permitted design, operational plans or municipal plans concerning the management of solid waste;

2. A change in the manner of waste management at the site which is inconsistent with the permitted design or operational plans of the site;

3. A substantive change in the:

(a) Permitted design of the site;

(b) Plans for closure and postclosure;

(c) Procedures for monitoring the site and for taking any necessary corrective actions; or

(d) The mechanisms for financial assurance; and

4. Any other change which is deemed by the solid waste management authority to require public notice and a public hearing.

(Added to NAC by Environmental Comm'n, eff. 11-8-93)

GUIDANCE

FOR APPLICABILITY OF NEVADA SOLID WASTE PERMITTING REQUIREMENTS TO COMPOSTING FACILITIES

Excerpts from Nevada Revised Statutes & Administrative Codes Concerning Requirements for entities to Obtain Solid Waste Compost Plant Permits. Use this guidance to assist in determining whether or not your facility may need a Compost Plant Permit. If there are any questions as to whether or not your facility meets these definitions please contact the staff at the Bureau of Waste Management.

NRS 444.460 "Disposal site" defined. "Disposal site" means any place at which solid waste is dumped, abandoned or accepted or disposed of by incineration, land filling, composting or any other method. The term includes a municipal solid waste landfill.

NRS 444.553 Permits to operate disposal sites: Issuance; requirements.

1. The solid waste management authority shall, in accordance with the regulations of the state environmental commission adopted pursuant to NRS 444.560, issue permits to operate disposal sites. 2. A person shall not operate or authorize the activity of a disposal site unless the operator: (a) holds a permit to operate the disposal site issued by the solid waste management authority;

NAC 444.6405 Permit to operate disposal site: Requirement; exemptions; application (NRS 444.560)

1. Except as otherwise provided in subsection 2, the owner or operator of a disposal site must obtain a permit to operate the site from the appropriate solid waste management authority.
2. The following sites are exempt from the provisions of subsection 1:
   (a) Composting bins which are operated at a personal residence for personal use; and
   (b) Municipal compo sting operations for yard wastes.
3. The owner or operator of a proposed disposal site shall obtain a permit before the construction or activity of that site. An application for a permit must be submitted at least 180 days before the anticipated start of construction, to allow sufficient time for the review and issuance of the permit.

NAC 444.572 "Composting" defined. "Composting" means a controlled process of biological degradation of solid waste to an inoffensive humus-like product.

Nevada

GUIDELINES FOR SUBMITTING A COMPOST PLANT APPLICATION

NAC 444.670 System to process waste: Compost Plant. (NRS 444.560)

A compost plant must not be established until the site location, design of the plant and proposed method of operation have been approved by the solid waste management authority and a permit to operate the compost plant has been issued in accordance with the requirements of NAC 444.6405 to 444.6435, inclusive. An application for such a permit must include:

(a) A description of the materials to be composted, including a characterization of the waste sufficient to evaluate the potential for biological or chemical contaminant migration in the event of a release;

Include a complete description of the materials along with an analytical characterization (lab analysis) of the wastes to be composted. It is not necessary include an analysis for common compostables like hay, yard waste etc, but be sure to include an analysis for wastes like Septage, Waste Activated Sludge (WAS), Dewatered Activated Sludge (DAS), Filter Cake. The analysis will vary with the type of composting operation, for example the composting of dairy wastes will differ from the composting of sewage sludge as will the composting of yard waste (or wood wastes etc). Be sure to speak to the nature of the type and volume of waste that is proposed to be composted.

(b) A layout diagram of the plant showing property boundaries, fencing, roads, principal processing equipment, storage areas for stockpiles of incoming materials and intermediate and final products;

Include a scaled drawing (or drawings) showing the overall plant layout at a scale that provides sufficient detail to delineate the entire plant and individual processing areas. Include it on 1 (or more) 11 x 17 sheets. Include the run-on run-off controls and site boundaries.

(c) A description of the equipment and personnel necessary to operate the plant;

Include an equipment inventory and a listing of the personnel and their respective job duties and level of authority.

(d) A description of the process, with a schematic diagram, that shows loading and unloading areas and traffic flow routing;

Describe and show the flow of material through the site and provide it to scale. It should have some relation to the layout diagrams above in (b) but should show the flow of the compostables through the site and their respective staging areas.

(e) The maximum inventory, by volume, of feed stocks, intermediate materials and products;

Provide the volumes of the raw material (incoming wastes), compost (windrows volumes) and finished product that will be staged onsite at any given time.

(f) Proposed product specifications and a program to verify conformance with the specifications;

Provide a verification program detailing the sampling regime and procedures that will be used to assure the specifications will be met: Use the following for guidance;

"Example Compost Specifications" available at http://ndep.nv.gov/bwm/solid.htm

(g) A program for monitoring the parameters of the process, including moisture content and temperature;

Describe the daily, weekly, and monthly monitoring program of quality assurance for the type of compositing (windrow testing will vary from static piles or drum rolled techniques etc.). Include the type of instrument (s) (temperature probe etc.) proposed for the monitoring program.

(h) A description of the final use for the compost or the available markets for the compost;

Provide the end use for the compost, depending on the type of material that will be composted (DAS versus yard waste) the end use will determine how much testing and verification may be necessary. For

example if septage is composted and sold to the public then a strict following of the requirements of 40 C.F.R. § 503.32(a) will be required, with additional testing or quality assurance.

(i) Provisions for fire prevention and control;

In general provide a fire prevention plan (not letting the pile get too hot, restricting combustibles, keeping flammables away etc). Personnel are not expected to fight a fire. Provide an emergency escape plan for the site with routes of ingress and egress and a notification procedure for the local fire department and emergency services.

(j) Provisions for odor prevention and control;

Provide any description of actions that will used to prevent/control odors. This will vary from site to site and will also depend on the proximity to neighbors.

(k) Provisions for the control of surface water run-on and runoff;

This will vary from site to site, and will incur greater controls for sites that are in areas of greater precipitation. Locate (site plan) and describe the barriers/berms that will be installed to provide run-on (controls used to divert waters away from the site) control and control any runoff (controls that are used to control waters that fall on the site). Include evaporation ponds as necessary.

(l) Provisions for litter prevention and control;

Include a description of how the site will be policed for stray litter, material, odds and ends.

(m) Contingency plans to be followed in the event of emergencies and unforeseen circumstances that may occur at the facility. The plans must provide, at a minimum, for an organized and coordinated course of action to be taken and address the following situations:

(1) A fire at the facility;
(2) A release of hazardous or toxic materials; and
(3) The shutdown of the facility for any reason; and

Provide a course/plan of action that accounts for the employees during the event, notifies the authorities and assures that the safety of the employees is considered.

(n) Provisions for proper disposal of by-products.

For the all the by-products that cannot be composted, identify a disposal option (local landfill etc).

2. Any person or municipality which maintains or operates a compost plant shall maintain and operate the site in conformance with the following standards:

(a) If the compost plant accepts municipal solid waste and is not fully contained within a building, a buffer zone must be maintained of at least 500 feet from the adjoining property and 1,000 feet from any public roads.

In submitting the plant layouts if either of these occurs, include the buffer zone as a requirement.

(b) Incoming solid waste must be confined to as small an area as practicable. At the conclusion of each day of operation, all windblown material resulting from the operation must be collected and returned to the area.

This should have been discussed previously. Show the incoming waste and its extent on the diagram, and refer to l above.

The general Requirements for Compost Facilities are:

(c) Materials resulting from composting and offered for sale:

(1) Must meet the requirements relating to the maximum allowable density of fecal coliform or Salmonella sp. bacteria for Class A sewage sludge set forth in 40 C.F.R. § 503.32(a);

See attachment "Example Compost Specifications"

(2) Must not reheat upon standing;

(3) Must be innocuous; and

(4) Must contain no sharp particles which could cause injury to persons handling the compost.

(d) By-products removed during the processing must be handled in a sanitary and nuisance-free manner and disposed of at a facility approved by the solid waste management authority.

Refer to (n) above

3. A compost plant shall comply with the plans for the design and operation of the facility approved by the solid waste management authority. A compost plant shall not:

(a) Contribute to the pollution of the air or waters of this State;
(b) Cause an impairment of the environment;
(c) Cause a health or safety hazard to employees of the facility or the general public; or
(d) Cause a public nuisance.

The entire application should address this and provide for the operation of the site such that this will not occur.

4. The solid waste management authority may suspend or revoke a permit to operate a compost plant if the owner or operator of the facility fails to comply with the provisions of NAC 444.570 to 444.7499, inclusive.

References

http://www.ciwmb.ca.gov/Organics/
http://compost.css.cornell.edu/Composting_homepage.html
http://compost.css.cornell.edu/market-label/guidelines/descriptions.htm
http://www.woodsend.org/pdf-files/sampli~1.pdf#search=%22compost%20sampling%22

Certification Website
http://tmecc.org/tmecc/

GUIDANCE

FOR APPLICABILITY OF NEVADA SOLID WASTE PERMITTING REQUIREMENTS TO COMPOSTING FACILITIES

NRS 444.620 Applicability of plans and provisions.

1. No plan for a solid waste management system adopted pursuant to NRS 444.440 to 444.620, inclusive, applies to any agricultural activity or agricultural waste…

	COMPOST PROCESS DESCRIPTION	PERMIT REQUIRED?	NDEP COMMENTS
ON – FARM Composting	1. Agricultural Facility composts its own agricultural-waste and applies composted material to its own land.	NO	Exempt per NRS 444.620
	2. Agricultural Facility composts its own agricultural-waste and sells to other Agricultural Facilities for agricultural purposes.	YES	Compost production for sale is a commercial activity rather than an agricultural activity.
	3. Agricultural Facility composts its own agricultural-waste, and sells to the general public.	YES	Compost production for sale is a commercial activity rather than an agricultural activity.
	4. Agricultural Facility composts agricultural-waste generated by other Agricultural Facilities and applies composted material to its own land.	NO	Exempt per NRS 444.620
	5. Agricultural Facility composts agricultural-waste generated by other Agricultural Facilities and sells to other Agricultural Facility's only.	YES	Compost production for sale is a commercial activity rather than an agricultural activity.
	6. Agricultural Facility composts agricultural-waste generated by other Agricultural Facilities and sells to the general public.	YES	Compost production for sale is a commercial activity rather than an agricultural activity.
	7. Agricultural Facility composts non-agricultural waste from any source for any use.	YES	Not Exempt per NRS 444.620
Off Site Composting	8. Municipal yard waste composting	NO	Exempt per NAC 444.6405
	9. Commercial yard waste composting	YES	Standards in NAC 444.670.2(c)

Example Compost Specifications

Indicator	Quality Standard for Finished Compost	
Visual	All material is dark brown (black indicates possible burning). Parent material is no longer visible. Structure is mixture of fine and medium size particle and humus crumbs.	
Physical	Moisture: 30-40%, Fine Texture (all below 1/8" mesh)	
Odor	Smells like rich humus from the forest floor; no ammonia or anaerobic odor.	
Nutrient	Carbon: Nitrogen Ratio	<17:1
	Total Organic Matter	20-35%
	Total Nitrogen	1.0-2.0%
	Nitrate Nitrogen	250-350PPM
	Nitrite Nitrogen	0PPM
	Sulfide	0 PPM
	Ammonium	0 or trace
	pH	6.5-8.5
	Cation Exchange Capacity (CEC)	>60 meq/100g
	Humic Acid Content	5-15%
	ERGS Reading	5,000-15,000 mS/cm
Microbiological	Heterotrophic Plate Count	1×10^8 - 1×10^{10} CFU/gdw
	Anaerobic Plate Count	Aerobes: Anaerobes at 10:1 or greater
	Yeasts and Molds	1×10^3 - 1×10^5 CFU/gdw
	Actinomycetes	1×10^6 - 1×10^8 CFU/gdw
	Pseudomonads	1×10^3 - 1×10^6 CFU/gdw
	Nitrogen-Fixing Bacteria	1×10^3 - 1×10^6 CFU/gdw
	Compost Maturity	>50% on Maturity Index at dilution rate appropriate for compost application.
	Compost Stability	<100 mg O^2/Kg compost dry solids-hour
	E. coli	< 3 E. coli/g
	Fecal Coliforms	<1000 MPN/g of dry solids
	Salmonella	< 3 MPN/4g total solids

Example Compost Testing/Performance Criteria

Chemical and Biological Measurements of Quality

There are many chemical and biological measurements used to assess quality. A list of some common measurements and comments on these measurements are given below.

Chemical Measurements

Measurement	Comments
pH and alkalinity	pH plays a large role in the availability of plant nutrients. A basic pH can reduce phosphorous, manganese, and zinc availability, while an acidic pH can cause potassium, calcium, nitrogen, copper and molybdenum deficiency. An optimal pH value depends on the system to which compost is to be applied. A pH< 5 is a good indication that the compost measured is not stable and one which probably contains phytotoxic compounds. Very little is known about the effect of alkalinity in composts, except that a compost with high alkalinity may help buffer the system against large pH changes.
cation exchange capacity (CEC)	The CEC is a measure of the exchangeable cations that a compost can absorb. The higher the CEC of a compost, the more exchangeable cations it can hold. The CEC of compost tends to increase as maturity and humic substances increase. The CEC depends on the pH of the compost, thus care should be taken when comparing the CEC of composts with different pH.
salinity	The desired salinity of a compost will vary depending on the application. The salinity of manure composts is usually higher than composts from yard waste. The salinity is typically measured by preparing a water-based paste of the compost, thus this measurement is a function of the dilution ratio of compost to water. Caution should be taken when comparing salinity values of composts where dilution ratios are unknown or are different.
Carbon to Nitrogen ratio (C/N)	The C/N ratio is a measure of the ratio of the total carbon and nitrogen. This ratio is typically used to assess stability and maturity yet it provides no measure of the biological availability of carbon or nitrogen in a sample. For instance, a compost with a high C/N where lignin represents a large fraction of the carbon may have the same impact on a system as a compost with a lower C/N where cellulose represents a large fraction of the carbon. In general it has been suggested that composts with a large C/N may cause nitrogen immobilization, while composts with a small C/N may result in ammonia toxicity.
heavy metals	Measurement of heavy metal concentrations in composts produced at composting facilities is required by law and limits on specific metal concentrations are provided in the California Composting Operations Regulatory Requirements. Studies have shown composts to reduce leaching of heavy metals, but research is still needed to evaluate the extent of irreversibility of this process.

Plant nutrients such as N, P, and K are also commonly measured for composts. The importance of these values will again depend on the desired application.

Stability

Biological measurements such as stability and plant bioassays are often used to assess the quality of compost. Stability measurements will be mentioned below. Plant growth and disease suppression bioassays are discussed in other sections of these proceedings.

The stability of a compost is often measured to assess potential phytotoxic affects of compost. Stability has also been used in combination with other chemical measurements to assess the degree to which composts suppress plant pathogens. A stability measurement is defined here as a measure of the biological activity within a compost sample which has adequate moisture and oxygen and is not inhibited by high (>50 ^{o}C) or low (<20 ^{o}C) temperatures. A stability test essentially allows one to gain insight into the rate of decomposition and thus how "finished" a compost may be with respect to raw or mature composts.

Listed below are four common measurements of stability.

1. Heat production.

   This test relies on the fact that aerobic microorganisms decomposing the compost produce heat and the heat produced is proportional to microbial activity. This test is typically performed by placing the sample in an insulated container with a thermometer. The temperature rise in the sample is used to assess stability. An important note about this test is that the temperature rise is not only a function the heat generated from microbial activity, but also on the sample weight and moisture content.
2. Oxygen consumption.

   This test measures oxygen depletion by microbial activity. The test is usually performed in a controlled-temperature and sealed environment. The rate of oxygen depletion from the environment and/or the change in oxygen within the environment over a given period of time are used to assess stability.
3. Pressure change.

   If a biologically active compost sample is placed in a sealed container along with a solution which absorbs CO_2, the pressure in the container will drop. As oxygen is consumed by aerobic microbes, CO_2 is produced; absorbing the CO_2 from the gas in the container results in a pressure drop. Stability can be assessed by measuring the pressure drop in the container over a given period of time.
4. CO_2 production.

   This test measures the CO_2 produced by both anaerobic and aerobic microbial activity. The test is performed in a sealed environment and is usually done with some temperature control. The measured rate of CO_2 production and/or the change in CO_2 within the environment over a given period of time are used to assess stability.

One issue common to the biological measurements of stability is that sufficient time is needed for the microbes within the compost to recover from the perturbation associated with material sampling. Most of the techniques listed above require at least two days for the microbial population within the sample to "adjust" to the new environmental conditions before an accurate assessment of stability can be obtained. The user should be wary of stability tests done in less than 48 hours.

Assessing the Process

Records that must be kept by a composting operation to be in compliance with the California Regulations include compost temperature measurements (temperature history), mixing frequency, and metal and fecal coliform concentrations of the final product. Other measurements often recorded include oxygen and carbon dioxide concentration, moisture and volatile solids content. These measurements can be very helpful to you in assessing compost quality.

Temperature

Temperature plays an important role in stability, pathogen (human and plant) destruction and weed seed inactivation. With respect to temperature the California Integrated Waste Management Regulations state: (1) for an enclosed or within-vessel composting operation, temperatures must equal or exceed 55°C (131°F) for a period of three days, (2) for a windrow operation, temperatures must equal or exceed 55°C (131°F) for a period of 15 days and the windrow must be turned at least 5 times during this period, and (3) for an aerated static pile operation, temperatures must equal or exceed 55°C (131°F) for a period of three days and the compost must be covered with 6-12 inches of insulating material during this period.

Temperatures and temperature histories required by the California regulations are sufficient for both pathogen and weed seed inactivation. This result will only hold when actions have been taken (such as mixing or enclosing the pile) to ensure all portions of the compost have been exposed to high temperatures. Thus, the user would want to verify by analysis of temperature histories at several locations in the process that the compost had been exposed to sufficiently high temperatures.

Some compost piles can reach temperatures as high as 70°C (158°F) if not controlled properly. Temperatures this high can significantly reduce microbial activity and the rate of decomposition. This can result in an unstable product and one which is potentially phytotoxic. The user would want to verify longer processing and curing times for a material exposed to temperatures greater than 65°C (150°F) for long periods of time.

One common rule of thumb regarding temperature and stability is that if the temperature difference between the compost and ambient air is greater than 10°C (15°F), the compost is still fairly unstable.

Oxygen and Aeration

Decomposition in composting is performed by both aerobic and anaerobic microorganisms. Aerobic microorganisms are favored because they decompose organic materials more rapidly than anaerobic organisms and they do not produce the nuisance odors typically associated with composting. Thus, one

important management strategy in composting is to increase oxygen transfer within the pile. Oxygen transfer can be enhanced by increasing the porosity (volume fraction of air) and/or by forcing air through the compost. Porosity is increased by the addition of bulking agents, control of moisture and mixing of the pile. Overmixing, however, can reduce the particle size and subsequently the porosity of the compost.

Studies have shown that biological activity within a composting operation begins to decrease when oxygen concentration drops below 10% (CO_2>11%), and is significantly reduced when the oxygen concentration drops below 3% (CO_2>18%). Processes operated with a low oxygen concentration could produce an unstable compost. If records of a composting operation show low oxygen or high CO_2 concentrations for long periods of time, the user should verify that the material was composted and cured for an extended period to ensure the product is stable.

Moisture

The balance of moisture within the process is highly coupled to both temperature and oxygen control. Moisture is required by all organisms, yet too much moisture will reduce the amount of oxygen supplied to the process. Not enough oxygen will result in anaerobic activity and a decrease in the rate of decomposition. This decrease could result in an unstable product. Also, a large fraction of the heat generated during the composting process is removed by evaporative cooling. Significant amounts of water can be lost as a result of this cooling, so moisture management must be a key component to any composting process.

The moisture content at which moisture becomes limiting to microbial activity and oxygen transport varies among materials. The lower limit of moisture content is about 35-40% (weight of water x 100/total wet weight) and the upper is about 60-70%. The user would want to verify that if moisture content went below 35-40% during the process, measures were promptly taken to increase the moisture content. If moisture was never adjusted, the product could be unstable. If the moisture content of the material went above 60-70%, the user would want to verify that the material was composted longer to compensate for the reduced oxygen transfer, and thus aerobic microbial activity.

Other issues of importance are feedstocks and how they were processed prior to composting. The importance of these issues depends on how the compost is to be used. The extent to which contaminates such as glass, metals and lumber scraps are removed from the compost plays a large role in the quality of the product. The user would want to look closely at a compost for small pieces of plastic and other contaminants prior to accepting delivery.

Summary

A good composting facility should be able to provide the user with regulatory records as well as other monitored parameters upon request. Below is a summary of some questions the end-user would want to answer upon analysis of facility records.

1. *Were temperatures sufficiently high to ensure pathogen and weed seed destruction?*

   The user would check for temperatures greater than 55°C (131°F) at several locations in the pile for:

   - 3 days if the process is enclosed or within-vessel
   - 15 days if the process is a windrow (also check that the pile was mixed at least five time during the 55°C phase)
   - 3 days if the process is an aerated static pile (also check that the pile was insulated)

   The user would also want to learn about when temperatures were monitored (time before or after mixing) and the depth at which temperatures were measured. Temperatures measured before mixing would generally be higher than if measured right after mixing. Temperatures measured at greater depths in the pile (> 2 ft) would typically be higher than if measured closer to the surface.

1. *Did temperatures exceed 65°C (150°F) for an extended period of time?*

   The user would review temperature records as stated above. If temperatures did exceed 65°C (150°F) for a few weeks, the user would want to check the stability of the final product.

2. *Was oxygen limiting to the process?*

   If available, the user would review oxygen and CO_2 data. If the oxygen concentration dropped below 5% or the CO_2 rose above 15% for an extended period of time, the user would want to verify the stability of the product. The oxygen concentration can drop and CO_2 rise significantly with increasing distance into the pile, thus the user would want to ask at what depth oxygen and CO_2 were measured to make an accurate estimate of oxygen limitations.

3. *How was moisture controlled within the process?*

   If available, the user would review the moisture content and moisture addition records. If moisture content dropped below 30% for an extended period of time and was not adjusted or if moisture content rose above 70%, the user would want to verify the stability of the product.

4. *How were contaminants removed from the raw material and final product?*

The user would request information from the facility operator on actions taken to prevent contaminants including metals, plastics, glass and waste lumber from entering the process and the methods used to remove contaminants from the process. S/he should also look at a few batches of compost for contaminants.

§ 503.8 Sampling and analysis.

(a) Sampling. Representative samples of sewage sludge that is applied to the land, placed on a surface disposal site, or fired in a sewage sludge incinerator shall be collected and analyzed.

(b) Methods. The materials listed below are incorporated by reference in this part. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. The materials are incorporated as they exist on the date of approval, and notice of any change in these materials will be published in the Federal Register. They are available for inspection at the Office of Water Docket, room L–102, U.S. Environmental Protection Agency, 401 M St., SW., Washington, DC, and at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202–741–6030, or go to: http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html. Copies may be obtained from the standard producer or publisher listed in the regulation. Methods in the materials listed below shall be used to analyze samples of sewage sludge.

(1) Enteric viruses. ASTM Designation: D 4994–89, "Standard Practice for Recovery of Viruses From Wastewater Sludges", 1992 Annual Book of ASTM Standards: Section 11—Water and Environmental Technology, ASTM, 1916 Race Street, Philadelphia, PA 19103–1187.

(2) Fecal coliform. Part 9221 E. or Part 9222 D., "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, American Public Health Association, 1015 15th Street, NW., Washington, DC 20005.

(3) Helminth ova. Yanko, W.A., "Occurrence of Pathogens in Distribution and Marketing Municipal Sludges", EPA 600/1–87–014, 1987. National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 (PB 88–154273/AS).

(4) Inorganic pollutants. "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", EPA Publication SW–846, Second Edition (1982) with Updates I (April 1984) and II (April 1985) and Third Edition (November 1986) with Revision I (December 1987). Second Edition and Updates I and II are available from the National Technical Information Service, 5285 Port Royal Road, Springfield, Virginia 22161 (PB–87–120–291). Third Edition and Revision I are available from Superintendent of Documents, Government Printing Office, 941 North Capitol Street, NE., Washington, DC 20002 (Document Number 955–001–00000–1).

(5) Salmonella sp. bacteria. Part 9260 D., "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, American Public Health Association, 1015 15th Street, NW., Washington, DC 20005; or

Kenner, B.A. and H.P. Clark, "Detection and enumeration of Salmonella and Pseudomonas aeruginosa", Journal of the Water Pollution Control Federation, Vol. 46, no. 9, September 1974, pp. 2163–2171. Water Environment Federation, 601 Wythe Street, Alexandria, Virginia 22314.

(6) Specific oxygen uptake rate. Part 2710 B., "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, American Public Health Association, 1015 15th Street, NW., Washington, DC 20005.

(7) Total, fixed, and volatile solids. Part 2540 G., "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, American Public Health Association, 1015 15th Street, NW., Washington, DC 20005.

40 CFR 503.32 Requirements--To meet the NAC requirements choose ***one*** of the following alternatives

Choose either Class A or Class B Alternative depending on end use

§ 503.32 Pathogens.

(a) *Sewage sludge—Class A.* (1) The requirement in §503.32(a)(2) and the requirements in either §503.32(a)(3), (a)(4), (a)(5), (a)(6), (a)(7), or (a)(8) shall be met for a sewage sludge to be classified Class A with respect to pathogens.

(2) The Class A pathogen requirements in §503.32 (a)(3) through (a)(8) shall be met either prior to meeting or at the same time the vector attraction reduction requirements in §503.33, except the vector attraction reduction requirements in §503.33 (b)(6) through (b)(8), are met.

(3) ***Class A—Alternative 1.***

(i) Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10 (b), (c), (e), or (f).

(ii) The temperature of the sewage sludge that is used or disposed shall be maintained at a specific value for a period of time.

(A) When the percent solids of the sewage sludge is seven percent or higher, the temperature of the sewage sludge shall be 50 degrees Celsius or higher; the time period shall be 20 minutes or longer; and the temperature and time period shall be determined using equation (2), except when small particles of sewage sludge are heated by either warmed gases or an immiscible liquid.

$$D = \frac{131,700,000}{10^{0.1400t}} \qquad Eq.\ (2)$$

Where,

D=time in days.

t=temperature in degrees Celsius.

(B) When the percent solids of the sewage sludge is seven percent or higher and small particles of sewage sludge are heated by either warmed gases or an immiscible liquid, the temperature of the sewage sludge shall be 50 degrees Celsius or higher; the time period shall be 15 seconds or longer; and the temperature and time period shall be determined using equation (2).

(C) When the percent solids of the sewage sludge is less than seven percent and the time period is at least 15 seconds, but less than 30 minutes, the temperature and time period shall be determined using equation (2).

(D) When the percent solids of the sewage sludge is less than seven percent; the temperature of the sewage sludge is 50 degrees Celsius or higher; and the time period is 30 minutes or longer, the temperature and time period shall be determined using equation (3).

$$D = \frac{50,070,000}{10^{0.1400t}} \qquad Eq.\ (3)$$

Where,

D=time in days.

t=temperature in degrees Celsius.

(4) ***Class A—Alternative 2.***

(i) Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10 (b), (c), (e), or (f).

(ii)(A) The pH of the sewage sludge that is used or disposed shall be raised to above 12 and shall remain above 12 for 72 hours.

(B) The temperature of the sewage sludge shall be above 52 degrees Celsius for 12 hours or longer during the period that the pH of the sewage sludge is above 12.

(C) At the end of the 72 hour period during which the pH of the sewage sludge is above 12, the sewage sludge shall be air dried to achieve a percent solids in the sewage sludge greater than 50 percent.

(5) ***Class A—Alternative 3.***

(i) Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10 (b), (c), (e), or (f).

(ii)(A) The sewage sludge shall be analyzed prior to pathogen treatment to determine whether the sewage sludge contains enteric viruses.

(B) When the density of enteric viruses in the sewage sludge prior to pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to enteric viruses until the next monitoring episode for the sewage sludge.

(C) When the density of enteric viruses in the sewage sludge prior to pathogen treatment is equal to or greater than one Plaque-forming Unit per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to enteric viruses when the density of enteric viruses in the sewage sludge after pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the sewage sludge that meets the enteric virus density requirement are documented.

(D) After the enteric virus reduction in paragraph (a)(5)(ii)(C) of this section is demonstrated for the pathogen treatment process, the sewage sludge continues to be Class A with respect to enteric viruses when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in paragraph (a)(5)(ii)(C) of this section.

(iii)(A) The sewage sludge shall be analyzed prior to pathogen treatment to determine whether the sewage sludge contains viable helminth ova.

(B) When the density of viable helminth ova in the sewage sludge prior to pathogen treatment is less than one per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to viable helminth ova until the next monitoring episode for the sewage sludge.

(C) When the density of viable helminth ova in the sewage sludge prior to pathogen treatment is equal to or greater than one per four grams of total solids (dry weight basis), the sewage sludge is Class A with respect to viable helminth ova when the density of viable helminth ova in the sewage sludge after pathogen treatment is less than one per four grams of total solids (dry weight basis) and when the values or ranges of values for the operating parameters for the pathogen treatment process that produces the sewage sludge that meets the viable helminth ova density requirement are documented.

(D) After the viable helminth ova reduction in paragraph (a)(5)(iii)(C) of this section is demonstrated for the pathogen treatment process, the sewage sludge continues to be Class A with respect to viable helminth ova when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in paragraph (a)(5)(iii)(C) of this section.

(6) ***Class A—Alternative 4.***

(i) Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella* sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10 (b), (c), (e), or (f).

(ii) The density of enteric viruses in the sewage sludge shall be less than one Plaque-forming Unit per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10 (b), (c), (e), or (f), unless otherwise specified by the permitting authority.

(iii) The density of viable helminth ova in the sewage sludge shall be less than one per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or give away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10 (b), (c), (e), or (f), unless otherwise specified by the permitting authority.

(7) ***Class A—Alternative 5.***

(i) Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella,* sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10(b), (c), (e), or (f).

(ii) Sewage sludge that is used or disposed shall be treated in one of the Processes to Further Reduce Pathogens described in appendix B of this part.

(8) ***Class A—Alternative 6.***

(i) Either the density of fecal coliform in the sewage sludge shall be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of *Salmonella,* sp. bacteria in the sewage sludge shall be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time the sewage sludge is used or disposed; at the time the sewage sludge is prepared for sale or given away in a bag or other container for application to the land; or at the time the sewage sludge or material derived from sewage sludge is prepared to meet the requirements in §503.10(b), (c), (e), or (f).

(ii) Sewage sludge that is used or disposed shall be treated in a process that is equivalent to a Process to Further Reduce Pathogens, as determined by the permitting authority.

(b) Sewage sludge—Class B. (1)(i) The requirements in either §503.32(b)(2), (b)(3), or (b)(4) shall be met for a sewage sludge to be classified Class B with respect to pathogens.

(ii) The site restrictions in §503.32(b)(5) shall be met when sewage sludge that meets the Class B pathogen requirements in §503.32(b)(2), (b)(3), or (b)(4) is applied to the land.

(2) Class B—Alternative 1.

(i) Seven representative samples of the sewage sludge that is used or disposed shall be collected.

(ii) The geometric mean of the density of fecal coliform in the samples collected in paragraph (b)(2)(i) of this section shall be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per gram of total solids (dry weight basis).

(3) Class B—Alternative 2.

Sewage sludge that is used or disposed shall be treated in one of the Processes to Significantly Reduce Pathogens described in appendix B of this part.

(4) Class B—Alternative 3.

Sewage sludge that is used or disposed shall be treated in a process that is equivalent to a Process to Significantly Reduce Pathogens, as determined by the permitting authority.

(5) Site restrictions. (i) Food crops with harvested parts that touch the sewage sludge/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of sewage sludge.

(ii) Food crops with harvested parts below the surface of the land shall not be harvested for 20 months after application of sewage sludge when the sewage sludge remains on the land surface for four months or longer prior to incorporation into the soil.

(iii) Food crops with harvested parts below the surface of the land shall not be harvested for 38 months after application of sewage sludge when the sewage sludge remains on the land surface for less than four months prior to incorporation into the soil.

(iv) Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.

(v) Animals shall not be grazed on the land for 30 days after application of sewage sludge.

(vi) Turf grown on land where sewage sludge is applied shall not be harvested for one year after application of the sewage sludge when the harvested turf is placed on either land with a high potential for public exposure or a lawn, unless otherwise specified by the permitting authority.

(vii) Public access to land with a high potential for public exposure shall be restricted for one year after application of sewage sludge.

(viii) Public access to land with a low potential for public exposure shall be restricted for 30 days after application of sewage sludge.

(c) Domestic septage. (1) The site restrictions in §503.32(b)(5) shall be met when domestic septage is applied to agricultural land, forest, or a reclamation site; or

(2) The pH of domestic septage applied to agricultural land, forest, or a reclamation site shall be raised to 12 or higher by alkali addition and, without the addition of more alkali, shall remain at 12 or higher for 30 minutes and the site restrictions in §503.32 (b)(5)(i) through (b)(5)(iv) shall be met.

CHAPTER Env-Sw 600 COMPOSTING FACILITY REQUIREMENTS

Statutory Authority: RSA 149-M:7

PART Env-Sw 601 APPLICABILITY

Env-Sw 601.01 Applicability.

(a) The rules in this chapter shall apply to processing/treatment (P/T) facilities that produce compost from solid waste, hereinafter referred to as composting facilities.

(b) The requirements in this chapter shall apply as the complement of the P/T requirements in Env-Sw 500.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2301.01)

PART Env-Sw 602 PERMITTING REQUIREMENTS

Env-Sw 602.01 Permit Required.

(a) A permit issued pursuant to the solid waste rules shall be required for construction, operation and closure of a composting facility, unless exempt pursuant to Env-Sw 302.03 or Env-Sw 608.

(b) The type of permit required shall be as specified in Env-Sw 302.

(c) If the facility also composts sludge or septage as defined by RSA 485-A:2, the facility shall comply with the permitting requirements in Env-Ws 800 or Env-Ws 1600, as applicable.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2302.01)

Env-Sw 602.02 Permit Application Requirements. The applicant for a composting facility permit shall prepare the application in accordance with:

(a) Env-Sw 314 for a standard permit;

(b) Env-Sw 313 for an emergency permit;

(c) Env-Sw 312 for a research and development permit; and

(d) Env-Sw 311 for a permit-by-notification.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2302.02)

PART Env-Sw 603 SITING REQUIREMENTS

Env-Sw 603.01 Applicability.

(a) The siting requirements in this part shall apply to all composting facilities, except:

(1) Facilities that hold a permit issued under RSA 149-M prior to the 2005 readoption of the solid waste rules;

(2) Permit-exempt facilities identified in Env-Sw 302.03 or Env-Sw 608;

(3) Permit-by-notification facilities having an active life of 90 days or less;

(4) Research and development permit facilities by Env-Sw 312.02(b); and

(5) Emergency permit facilities as provided by Env-Sw 313.02(b).

(b) The siting requirements in this part shall apply as the complement of siting requirements in Env-Sw 1003 for all facilities, Env-Sw 1102 for facilities having an active life longer than 90 days, Env-Sw 1203 for permit-by-notification facilities, Env-Sw 503 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2303.01)

Env-Sw 603.02 Siting Requirements. A composting facility which has the potential to discharge leachate to the ground or generate odors shall comply with the siting standards for landfills, as specified in Env-Sw 804.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2303.02)

PART Env-Sw 604 DESIGN REQUIREMENTS

Env-Sw 604.01 Applicability.

(a) The design requirements in this part shall apply to all composting facilities, except:

(1) Permit-exempt facilities identified in Env-Sw 302.03 or Env-Sw 608;

(2) Permit-by-notification facilities having an active life of 90 days or less;

(3) Research and development permit facilities as provided by Env-Sw 312.02(b); and

(4) Emergency permit facilities as provided by Env-Sw 313.02(b).

(b) The design requirements in this part shall apply as the complement of the design requirements in Env-Sw 1004 for all facilities, Env-Sw 1103 for facilities having an active life longer than 90 days, Env-Sw 1200 for permit-by-notification facilities, Env-Sw 504 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2304.01)

Env-Sw 604.02 General Design Requirements. A composting facility shall be designed to operate in conformance with Env-Sw 605.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2304.02)

Env-Sw 604.03 Process Design Requirements.

(a) The composting process shall be designed to operate in a manner to meet the pathogen reduction criteria specified in 40 CFR 503, such as, but not limited to, one of the following methods:

(1) Using the windrow composting method, such that:

a. The solid waste shall be maintained under aerobic conditions during the compost process;

b. A minimum of 5 turnings shall be required during a period of 15 consecutive days when the temperature of the mixture shall not be less than 55ºC (131ºF) at 6 to 8 inches below the surface of the pile; and

c. In turning the compost pile, the exterior of the compost pile shall be turned into the interior of the compost pile to assure that all solid waste is exposed to composting conditions;

(2) Using the aerated static pile composting method, the compost pile shall be insulated and a temperature of not less than 55ºC (131ºF) shall be maintained throughout the compost pile for at least 3 consecutive days; or

(3) Using the enclosed vessel composting method, the mixture shall be maintained at a temperature of not less than 55ºC (131ºF) throughout the mixture for at least 3 consecutive days.

(b) The composting facility shall have sufficient temperature monitoring to ensure that the pathogen reduction criteria specified in 40 CFR 503 are met, such as the following:

(1) For a windrow or an aerated static pile process, monitoring 6 to 8 inches and 18 to 24 inches below the pile surface;

(2) For an aerated static pile process, monitoring 6 to 8 inches and 18 to 24 inches from the outlet of the aeration pipe; and

(3) For an enclosed vessel system, monitoring 6 to 8 inches and 18 to 24 inches inside the vessel wall and 6 to 8 inches from the aeration piping when operating in the positive aeration mode.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2304.03)

Env-Sw 604.04 Waste Collection, Storage and Processing Area Design Requirements.

(a) Waste collection, storage and processing areas shall be designed in conformance with Env-Sw 504.

(b) Areas used for windrows and aerated static piles shall conform to the same design requirements as specified for waste stockpiles in Env-Sw 404.05.

(c) Facility design shall include provisions to limit the production and off-site dispersal of odors.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; amd by #5295, eff 12-24-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2304.04)

PART Env-Sw 605 OPERATING REQUIREMENTS

Env-Sw 605.01 Applicability.

(a) The operating requirements in this part shall apply to all composting facilities, except:

(1) Permit-exempt facilities identified in Env-Sw 302.03 or Env-Sw 608;

(2) Permit-by-notification facilities having an active life of 90 days or less;

(3) Research and development permit facilities as provided by Env-Sw 312.02(b);

(4) Emergency permit facilities as provided by Env-Sw 313.03(b).

(b) The operating requirements in this part shall apply as the complement of the operating requirements in Env-Sw 1005 for all facilities, Env-Sw 1105 for facilities with an active life longer than 90 days, Env-Sw 1204 for permit-by-notification facilities, Env-Sw 505 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.01)

Env-Sw 605.02 General Operating Requirements.

(a) A composting facility shall operate in a manner to meet the pathogen reduction design criteria, as specified in Env-Sw 604.03(a), and consistently produce either a Class AA or Class A compost as specified by Env-Sw 605.05.

(b) Temperature shall be monitored as specified in Env-Sw 604.03(b) and shall be recorded daily.

(c) Operational records, in conformance with Env-Sw 1105.06, shall include:

(1) The source, description and quantity of all materials received at the facility;

(2) For facilities producing other than Class AA compost, a sampling log, which shall identify:

a. The date and time of sampling;

b. The person taking the sample;

c. The sampling method and location;

d. The lab to which the samples were sent for analysis; and

e. The results of the analysis, including quality assurance and quality control provisions;

(3) A temperature data log, which shall identify:

a. The date, time and location of data collection;

b. The person collecting the data;

c. Calibration data for the temperature device;

d. The data collection method; and

e. The data;

(4) Quantity of bypass waste removed prior to composting;

(5) Quantity of non-compostables and other residual waste removed after composting; and

(6) Locations to which or persons to whom Class A compost is distributed.

(d) All wastes received by the facility shall be inspected to identify and remove wastes that are not suitable for composting, including:

(1) Wastes that are not organic in nature; and

(2) Wastes which are prohibited wastes as specified in (e) below and any other waste having the potential to adversely affect the capabilities for producing either a Class AA or Class A compost.

(e) A composting facility shall not receive or compost the following types of waste:

(1) Asbestos;

(2) Batteries;

(3) Explosive or contained gaseous wastes;

(4) White goods;

(5) Construction and demolition debris;

(6) Bulky wastes;

(7) Recyclable materials other than paper or cardboard products certified for distribution and use as a composting bulking agent pursuant to Env-Sw 1500;

(8) Household hazardous waste and hazardous waste;

(9) Liquid wastes;

(10) Infectious waste or treated infectious waste;

(11) Animal carcasses or deceased persons;

(12) Contaminated soils or absorbent media;

(13) Radioactive materials as defined and regulated by the New Hampshire rules for the control of radiation, He-P 2000 and He-P 4000; and

(14) Sludge or septage as defined by RSA 485-A:2, except in accordance with a permit issued pursuant to RSA 485-A, as applicable.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; amd by #5295, eff 12-24-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.02)

Env-Sw 605.03 Product Quality Assurance/Quality Control Requirements. The following requirements shall apply to facilities producing other than a Class AA compost, except for small food waste composting facilities permitted pursuant to Env-Sw 607.02 which compost sludge in compliance with Env-Ws 800:

(a) Sampling and analysis of the compost shall be performed in accordance with a quality assurance/quality control plan (QA/QC plan) which:

(1) Conforms to the minimum requirements specified by (b) below;

(2) Assures all compost distributed by the facility meets the standards set forth in Env-Sw 605.05; and

(3) Is approved by the department as a condition of the permit.

(b) Except as provided by (c) below, sampling and analysis shall occur no less frequently than specified in Table 600-I:

Table 600-I
Sampling and Analysis of Compost

Average Compost Produced (Dry Tons/Day)	ANALYSES	
	Total Solids; Total Volatile Solids; Total Kjeldahl Nitrogen, Ammonia, Nitrate & Nitrite; Total Phosphorous; Total Potassium; pH; Heavy Metals (Cadmium, Total Chromium, Copper, Lead, Mercury, Nickel Zinc)	Total Polychlorinated Biphenyls
Less than 1	Semiannually, with 6 grab samples composited monthly	Annually, with 12 grab samples composited monthly
1 to 10	Monthly, with 4 grab samples composited weekly	Semiannually, with 6 grab samples composited monthly
More than 10	Weekly, with 5 grab samples composited daily	Semiannually, with 6 grab samples composited monthly

(c) By obtaining a type I-B permit modification pursuant to Env-Sw 315, the permittee may reduce the sampling and analysis frequency in (b) above to the frequencies specified in 40 CFR 503 after 3 years of meeting the quality criteria specified in Env-Sw 605.05;

(d) The results of laboratory analyses shall be reported to the department in accordance with Env-Sw 303 on a quarterly basis for those facilities that produce at least one dry ton of compost per day and on a semi-annual basis for those facilities that produce less than one dry ton of compost per day;

(e) Reporting of the analyses shall include copies of the laboratory reports, with all results reported on a dry weight basis except pH, total solids and total volatile solids, and a narrative of the findings, trends and results;

(f) Analysis of nitrogen series, including total kjeldahl nitrogen (TKN), ammonia (NH3), nitrite (NO2), and nitrate (NO3), shall be performed on either fresh grab samples or grab samples that are immediately frozen and remain frozen throughout the pre-analysis storage period;

(g) Additional analyses for salts or other pollutants shall be required for the compost if, during the permit application process, the proposed operating procedures and waste through-put characterization indicate that salt or other pollutants are likely to be present in the compost; and

(h) If the compost is produced using septage or sludge, the pathogen testing requirements in 40 CFR 503.32 shall apply.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.03)

Env-Sw 605.04 Compost Classes.

(a) Class AA compost shall be compost meeting the definition in Env-Sw 102.32.

(b) Class A compost shall be compost meeting the criteria specified in Env-Sw 605.05.

(c) All other compost shall be designated “off-spec compost.”

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; amd by #5295, eff 12-24-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.04)

Env-Sw 605.05 Class A Compost. Compost shall be designated as Class A compost if it meets the following criteria:

(a) The finished compost shall be sufficiently stable that it shall not reheat upon standing to greater than 20ºC above ambient temperature;

(b) The concentration of heavy metals in the finished compost shall not exceed the ceiling concentrations provided in Env-Ws 800 for sludge and sludge mixtures, determined on the basis of representative samples using EPA test procedures in EPA manual SW 846;

(c) The finished compost shall contain less than one ppm dry weight total polychlorinated biphenyls (PCB);

(d) The finished compost shall not exceed 10 millimeters (0.39 inch) particle size;

(e) The finished compost shall be produced from a composting process which:

(1) Has a minimum retention time, including active composting and curing, of 90 days; or

(2) Achieves 60 percent reduction in organic matter;

(f) The finished compost shall contain no glass, metal or plastic of size or shape that could cause injury;

(g) The finished compost shall contain no more than 2% non-organic and non-mineral material not including sand and other inorganic soils, by weight; and

(h) If the finished compost is produced using sludge or septage, the Class A pathogen reduction requirements in 40 CFR 503.32(a) shall apply.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; amd by #5295, eff 12-24-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.05)

Env-Sw 605.06 Uses, Class AA Compost. Pursuant to Env-Sw 1503.10(a), Class AA compost shall be certified for distribution and use as compost to be applied to land, without restriction.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.06)

Env-Sw 605.07 Uses, Class A Compost. Pursuant to Env-Sw 1503.10(b) and (c), Class A compost shall be certified for distribution and use as compost to be applied to land, except where crops are grown for direct human consumption. However, Class A compost may be used on land where food chain crops are grown, such as crops that are fed to livestock but not consumed directly by humans.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.07)

Env-Sw 605.08 Uses, Off-Specification Compost.

(a) Except as provided in (b) below, compost which is not Class AA or Class A shall be:

(1) Managed as residual waste in accordance with the facility's residuals management plan; and

(2) Not certified in accordance with Env-Sw 1500 for distribution and use as compost to be applied to land.

(b) Compost that meets all of the standards of a Class A compost, except that its particle size exceeds 10 millimeters (0.39 inch) shall be certified for distribution and use as compost in landfill cover systems, pursuant to Env-Sw 1500.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.08)

Env-Sw 605.09 Compost Identification.

(a) Prior to distribution, all Class A compost shall be clearly marked to:

(1) Show its classification; and

(2) Identify the following:

a. Type of waste from which it was derived;

b. Use restrictions;

c. Recommended safe uses;

d. Application rates; and

e. Maximum allowable contaminant levels as provided in Env-Sw 605.05 and average contaminant concentrations to date.

(b) The requirements in (a) above shall apply to both compost distributed in bulk and in bag form.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.09)

Env-Sw 605.10 Out-of-State Compost.

(a) Compost produced out-of-state which does not meet the criteria for Class AA or Class A compost or which is produced by a facility that has not complied with the regulatory requirements of the state in which it is located, shall not be certified for distribution and use pursuant to Env-Sw 1500 and therefore shall be deemed a solid waste upon entering New Hampshire and shall be managed as such.

(b) Any compost marketed in New Hampshire that is not marked in accordance with Env-Sw 605.09 shall be deemed to be a solid waste regardless of its state of origin and shall be managed as such.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2305.10)

PART Env-Sw 606 CLOSURE REQUIREMENTS

Env-Sw 606.01 Applicability.

(a) The closure requirements in this part shall apply to all composting facilities, except:

(1) Permit-exempt facilities identified in Env-Sw 302.03 and Env-Sw 608;

(2) Permit-by-notification facilities having an active life of 90 days or less;

(3) Research and development permit facilities as provided by Env-Sw 312.02(b); and

(4) Emergency permit facilities as provided by Env-Sw 313.02(b).

(b) The closure requirements in this part shall apply as the complement of the closure requirements in Env-Sw 1006 for all facilities, Env-Sw 1106 for facilities having an active life longer than 90 days, Env-Sw 1205 for permit-by-notification facilities, Env-Sw 506 and, for facilities also composting sludge or septage as defined by RSA 485-A:2, Env-Ws 800 or Env-Ws 1600, as applicable.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97,

EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2306.01)

Env-Sw 606.02 Closure Requirements.

(a) To comply with Env-Sw 1006.02(e), all finished compost which is certified for distribution and use shall be removed to places where it shall be used accordingly or removed to an authorized facility.

(b) To comply with Env-Sw 1006.02(b), all unfinished compost shall be removed to an authorized facility to be finished or disposed.

(c) To comply with Env-Sw 1006.02(e), no waste or compost shall remain at the site following closure under a claim of permit exemption pursuant to Env-Sw 302.03.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2306.02)

PART Env-Sw 607 PERMIT-BY-NOTIFICATION FACILITIES

Env-Sw 607.01 Purpose. The purpose of the rules in this part is to identify composting facilities eligible for a permit-by-notification pursuant to Env-Sw 311.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; amd by #5295, eff 12-24-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2307.01)

Env-Sw 607.02 Small Food Waste Composting Facilities. A facility which composts food waste shall be eligible for a permit-by-notification pursuant to Env-Sw 311, provided that the facility meets each of the following requirements:

(a) The facility shall comply with the requirements of Env-Sw 1200;

(b) The facility shall restrict its operations to composting one or more of the food wastes specified in (e) below, mixed with yard waste, animal manure, farming crop residuals, sludge as defined in RSA 485-A:2, XI-a, an approved bulking agent as defined in Env-Sw 102.06, or a combination thereof;

(c) If the facility composts sludge, it shall hold a valid permit issued pursuant to Env-Ws 800;

(d) The food waste portion of the compost mixture described in (b) above shall be no more than 20% of the entire mixture by volume;

(e) The facility shall receive and compost the following types of food waste only:

(1) Vegetable matter, including produce, and bakery wastes generated by retail food sales outlets;

(2) Food preparation waste from commercial and institutional kitchens that is limited to vegetable matter, edible vegetable oils, and bakery wastes; and

(3) Vegetable wastes generated as byproducts of food processing operations, including canning and freezing;

(f) The facility shall not receive or compost:

(1) Dairy products and their derivatives;

(2) Meat;

(3) Meat byproducts; or

(4) Non-food matter other than the non-food wastes allowed pursuant to (b) above, for instance:

a. Plastic and paper bags;

b. Plastic and paper wrappings;

c. Plastic and paper ties; and

d. String;

(g) No food waste shall be left uncovered at the facility for more than 2 hours;

(h) Food waste not incorporated into working compost shall be stored at the facility:

(1) No longer than 24 hours from receipt; and

(2) In a closed container controlling the dispersal of odors and preventing the attraction of birds, insects, rodents and other vectors;

(i) Access to windrows by compost turning equipment shall be maintained on a year round basis, including during periods of snowmelt, spring thaw, and high precipitation;

(j) Supplies of water and pumping capabilities shall be available at the facility and used to keep the compost moist;

(k) If manure is a primary constituent of the compost, sufficient quantities of an approved bulking agent shall be incorporated at all times to:

(1) Assure that the compost shall not become waterlogged; and

(2) Prevent the development of anaerobic conditions in the compost;

(l) Compost windrows shall be turned sufficiently often to maintain aerobic conditions at all times throughout each windrow;

(m) Prior to distribution and use, the compost shall be matured and stabilized to a condition which shall not cause it to re-heat when piled;

(n) Prior to distribution and use, the finished compost shall be determined and certified by the permittee to meet the specifications of:

(1) Class AA compost, if no sludge has been incorporated and the compost otherwise meets the definition of a Class A compost as provided by Env-Sw 102.32; or

(2) Class A compost, if sludge has been incorporated and, based on the testing results obtained pursuant to a permit issued for the facility pursuant to RSA 485-A and Env-Ws 800, the compost meets Class A standards.;

(o) Following the cessation of facility operations or any other trigger event for closure as provided in Env-Sw 1006, the permittee shall close the facility in accordance with Env-Sw 1006 and Env-Sw 606, and Env-Ws 800, as applicable; and

(p) Following closure, the permittee shall certify to the department in writing that the facility has been closed as required in (o) above, specifically including certification that the following conditions are met:

(1) All waste, including bypass and residual waste and unfinished compost, has been removed from the facility to an authorized facility for disposal or further management;

(2) All finished compost has been removed from the facility to locations that use or distribute the finished compost or disposed at an authorized facility; and

(3) The site has been cleaned pursuant to Env-Sw 1006.

Source. (See Revision Note at PART Heading for Env-Wm 101) #5172, eff 7-1-91; amd by #5295, eff 12-24-91; ss by #6535, INTERIM, eff 7-1-97, EXPIRES: 10-29-97; ss by #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2307.02)

PART Env-Sw 608 PERMIT-EXEMPT FACILITIES

Env-Sw 608.01 Purpose. The purpose of the rules in this part is to identify composting facilities which are permit-exempt, pursuant to Env-Sw 302.03(b)(2).

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2308.01)

Env-Sw 608.02 General Conditions for Exemption.

(a) The composting facilities described in this part shall be exempt from obtaining a permit, subject to the following conditions:

(1) The facility shall comply with the universal facility requirements in Env-Sw 1000; and

(2) All waste managed at the facility shall be actively managed.

(b) A permit exemption shall not affect a person's obligation to obtain all requisite federal, state or local permits, licenses or approvals, or to comply with all other applicable federal, state, district or local permits, ordinances, laws or approvals or conditions pertaining to the permit-exempt activities.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2308.02)

Env-Sw 608.03 Generator Composting Facilities.

(a) Subject to Env-Sw 608.02, no permit shall be required to compost the following wastes and materials at the waste generation site:

(1) Yard waste or farming crop residuals;

(2) Food waste limited to vegetable matter, edible vegetable oils and bakery waste;

(3) Animal manure;

(4) An approved bulking agent as defined in Env-Sw 102; or

(5) Any combination of (1) - (4) above.

(b) The facilities described in (a) above shall include:

(1) Composting operations at a private home for food waste generated by the home kitchen;

(2) Composting operations at schools and other institutions, for food waste generated by cafeteria(s) at the institution; and

(3) Farm based composting operations for food waste generated by the farm and farming crop residuals.

Source. #6619-B, eff 10-29-97; ss by #8459, eff 10-28-05 (formerly Env-Wm 2308.03)

Appendix

Rule Sections	Statute(s) Being Implemented
Env-Sw 600	RSA 149-M:6, III; RSA 149-M:7, II, III, XIV; RSA 149-M:9, I, III

TITLE 7. ENVIRONMENTAL PROTECTION
CHAPTER 26. SOLID WASTE
SUBCHAPTER 2B. ADDITIONAL, SPECIFIC DISPOSAL REGULATIONS FOR THERMAL DESTRUCTION FACILITIES, TRANSFER STATIONS, MATERIALS RECOVERY FACILITIES, CO-COMPOSTING AND SOLID WASTE COMPOSTING FACILITIES *N.J.A.C. 7:26-2B.1* (2009)

7:26-2B.1 Scope and applicability
(a) This subchapter shall constitute the rules of the Department governing the design, construction, operation and maintenance of the following types of disposal facilities:
1. Thermal destruction facilities which dispose of non-hazardous solid waste;
2. Thermal destruction facilities which dispose of non-hazardous solid waste and which incorporate energy recovery;
3. Solid waste transfer station facilities; and
4. Solid waste materials recovery facilities; and
5. Solid waste co-composting and composting facilities.
(b) The requirements of this subchapter are in addition to the general requirements found at *N.J.A.C. 7:26-2.10* and *2.11*.
(c) This subchapter shall apply to the following facilities:
1. All proposed solid waste facilities of the types identified in (a) above shall be designed, constructed, operated and maintained in accordance with the requirements of this subchapter; and
2. Any existing solid waste facilities of the types identified in (a) above determined to be operating in an environmentally unsound manner.
(d) This subchapter does not apply to hazardous waste facilities. See *N.J.A.C. 7:26G*.
7:26-2B.2 Construction
These rules shall be liberally construed to permit the Department to discharge its statutory functions.
7:26-2B.3 Purpose
(a) This subchapter is promulgated for the following purpose:
1. To establish additional engineering design submission requirements for thermal destruction facilities, transfer stations, materials recovery facilities, and solid waste composting and co-composting facilities to ensure that adverse impacts are minimized and pollution of the environment is prevented; and
2. To establish operational requirements to ensure the proper operation of thermal destruction facilities to minimize adverse impacts and prevent pollution of the environment.
7:26-2B.4 Additional engineering design submission requirements for thermal destruction facilities
(a) The following engineering design submittal requirements are in addition to the submittal requirements of *N.J.A.C. 7:26-2.10*:
1. The rated capacity of the facility, in both tons per day and tons per hour, and the maximum gross heat release rating for each incinerator/boiler;
2. The protocol to be established that will allow for the measurement of the rate of waste charging to the individual combustion unit(s), averaged for each over a discrete 24-hour period. In the case where the thermal destruction facility recovers energy for use by means of steam production, the boiler system and its auxiliaries shall be used as a calorimeter, and the following shall be factored into the method of determination:
i. Direct measurement of salient variables shall be employed where such means are available;
ii. Adjustments shall be made to account for variability in unit thermal efficiency as equipment is cycled for maintenance and as a result of equipment aging; and
iii. Seasonal variability of the higher heating value (HHV) of the waste subject to combustion shall be derived analytically using standard laboratory methods. At a minimum, the method chosen shall provide for quarterly reassessments of the HHV of the waste subject to combustion. Waste samples collected for HHV determination shall be representative of the nature and type of waste to be received at the facility for processing. The protocol shall also provide for a means of cross referencing the accuracy of the method of determination chosen by employing the use of the facility waste delivery weight scale records in a comparative analysis;

3. Projected average and peak daily deliveries of waste to the facility and charging rates to the combustion unit(s) (given in tons and estimated volumes). Quantify seasonal trends when anticipated;
4. The designation of normal loading, unloading and storage areas to be employed in the facility's handling of incoming wastes to be processed and residual materials generated by facility operations, including capacities in cubic yards and tons. Describe the time such areas can be practically used, based on average and peak facility operating conditions. At no time shall waste be delivered to the facility at a rate exceeding the facility's capacity to sort and process such waste. Under no circumstances shall waste be deposited beyond the confines of the refuse pit, except for the purpose of conducting incoming waste load inspections and holding unauthorized materials, or storing unprocessible materials such as oversize bulky waste;
5. The designation of emergency unloading, loading, staging, storage or other disposal capabilities to be used for the removal of previously stored waste should the facility be unable to process waste by means of combustion. Identify the plans for waste transfer from the facility, and identify the alternative disposal facility to be used under such conditions;
6. The expected daily quantity of bottom ash, fly ash (air pollution control train residues), post combustion recovered metals and other waste residue generated by facility operations, referenced by weight and projected volumes;
7. The proposed ultimate disposal location for all facility generated waste residues including, but not limited to, ash residues and by-pass materials, by-products resulting from air pollution control devices, and the proposed alternate disposal locations for any unauthorized waste types, which may have been unknowingly accepted. The schedule for securing contracts for the disposal of these waste types at the designated locations shall be provided;
8. A descriptive statement of any materials recycling or reclamation activities to be operated in conjunction with the facility, either on the incoming solid waste or the outgoing residue;
9. A descriptive statement and detailed specification of all process equipment, pollution control systems, instrumentation and monitoring mechanisms. Schematic diagrams shall be provided, where applicable. Equipment specifications, including information pertaining to the make, model and manufacturer, if available, and to the related processing equipment capacity, reliability and efficiency shall be submitted. Information on individual unit synchronization with upstream and downstream equipment shall also be submitted;
10. Profile views of all building structures, enclosures and exterior equipment appurtenances showing dimensions. Plan views showing setbacks, side and rear distances between the proposed structure and other existing or proposed structures, roadways, parking areas and site boundaries;
11. A descriptive statement and detailed specification of the proposed on-site and off-site transportation system intended to service employee vehicles, solid waste vehicles transporting waste to the facility for processing, and other vehicles removing reclaimed materials and/or process residues from the facility. The number, type, capacity, and frequency of these vehicles shall be specified. On-site parking, access and exit points, and the mechanisms or features which will be employed to provide for an even flow of traffic into, out of, and within the site, shall be identified;
12. Interior floor plans showing the layout, profile view and dimensions of the processing lines, interior unloading, sorting, storage and loading areas as well as other functional areas such as office space and employee's facilities shall be submitted;
13. A plan identifying, locating and describing utilities which will service the facility including, but not limited to, the storm water drainage system, sanitary sewer system, water supply system and energy system. Profiles on utility lines including horizontal and vertical dimensions, as well as grades, shall be provided. Existing pipeline carrying capacity and percent of that capacity being currently utilized under average and peak use conditions, shall be identified. Interface of the proposed facility with the existing utility systems and the specifications on materials to be used for constructing new systems or extending existing systems shall be detailed;
14. A waste supply analysis program characterizing the quantity and composition of the solid waste in the service area shall be submitted. The waste characterization and weight study shall be based on the most recent published composition and weight data made available through the designated department, unit or committee responsible for the supervision and implementation of the applicable District Solid Waste Management Plan as set forth at N.J.S.A. 13:1E-21b(1). In the absence of available data concerning composition and weight of the waste supply, the Department may require the applicant to perform a waste supply analysis. Should the proposed facility serve more than one district, each district's published composition and weighing study shall be consulted and appropriately factored into the database to be submitted. The effect of existing or future source separation

programs on the supply of solid waste within the service area shall be described and quantified. Data to be submitted shall include:
i. The composition data for the non-combustible solid waste, indicating percent by weight and percent by volume, generated within the service area shall be defined within the following framework:
(1) Aluminum;
(2) Ferrous metals;
(3) Other non-ferrous metals;
(4) Glass;
(5) Ceramics and fines; and
(6) Oversize bulky items.
ii. The composition data for combustible solid waste, indicating percent by weight and percent by volume, generated within the service area shall be defined for the following:
(1) Newspaper;
(2) Corrugated paper;
(3) Other paper products;
(4) Plastics;
(5) Wood;
(6) Yard wastes;
(7) Food wastes; and
(8) Textiles, rubber, leather and other combustibles.
iii. The composition data for the proximate analysis of the solid waste, indicating percent by weight, generated within the service area shall be defined for the following:
(1) Total Moisture;
(2) Ash (include percent by volume);
(3) Volatiles;
(4) Fixed Carbon; and
(5) Heating Value (Btu/lb. on an as received and moisture free basis).
iv. The composition data for the ultimate analysis of the solid waste, indicating percent by weight, generated within the service area shall be defined for the following:
(1) Ash;
(2) Carbon;
(3) Chlorine;
(4) Hydrogen;
(5) Nitrogen;
(6) Oxygen;
(7) Sulfur; and
(8) Heavy metals, including, but not limited to, arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, and zinc.
v. The quantity data for the solid waste generated within the service area shall be defined within the following framework:
(1) Quantity of waste types by geographic points (that is, municipality of origin); and
(2) Weight, volume and corresponding load density characteristics expressed in terms of daily, average, peak and minimum flow to the facility.
15. A detailed analysis of the materials and energy balance for the proposed facility shall be performed that focuses on the key operational components of the system and its related subsystems. The analysis shall account for every handling and processing step starting with waste delivery scheduling and ending with product and residue removal from the site. Quantification and qualification of sidestream pollutants shall be accounted for in the analysis. Indicate how the facility design will provide redundant features or contingencies in the process line including standard emergency operating conditions. Indicate adjustments available within the system that allow for modifying recovery and processing rates based on the anticipated variability in the solid waste stream;
i. The materials balance for the proposed facility shall include, but not be limited to, the following:
(1) A description of the maximum designed processing capacity for each piece of equipment on the processing line, including auxiliary equipment in tons per day;

(2) A description of the anticipated materials recovery rates, if applicable, in tons per day for each individual equipment unit as well as the anticipated loadings to be made to that particular unit under anticipated peak and average loading conditions; and
(3) A solid waste composition component accounting for combustible and non-combustible materials in tons per day at each processing point along the system line, including materials intentionally recovered as well as entrained contaminants, balanced against values for those materials passing through the unit unaffected by the actions of that unit. Provide a unit recovery efficiency value based on incoming solid waste component concentrations.
ii. The energy balance for the proposed facility shall account for conversion efficiencies and losses that occur throughout the process, including losses incurred by transmission to markets, if applicable. Variations in energy production shall be enumerated in reference to fluctuations in the quality and quantity of incoming solid waste. The energy produced by the facility shall be balanced against the energy consumed by the facility in recovering products from the solid waste stream. Describe how the proposed energy production will meet market demands. Identify instances where energy production rates will exceed secured market demands and contingencies for energy use, if any, under these conditions.
16. A draft facility staffing plan to be developed as part of the final O and M manual containing the following:
i. The job title for each anticipated position at the facility;
ii. A written job description for each anticipated position, including duties and performance standards. The description shall define the anticipated requisite skills, education, and other qualifications deemed necessary for employees assigned to each position; and
iii. A statement of the staffing provided for each operating shift, including the job titles and number of employees for each title, and for each shift;
17. An outline of the training plan to be developed as part of the final Operations and Maintenance manual, which includes the type and amount of both the initial and annual follow up training to be provided to facility personnel;
18. An outline of the emergency contingency plan to be developed as part of the final Operations and Maintenance manual which delineates procedures for responding to fire, explosions or any unplanned sudden or non-sudden releases of harmful constituents to the air, soil, or surface or ground water shall be submitted to the local police and fire departments, and to the local and county health departments or other offices of emergency management. The contingency plan shall contain:
i. A description of the actions facility personnel shall take in the event of various emergency situations;
ii. A description of arrangements made with the Department and local police and fire departments which will allow for immediate entry into the facility by their authorized representatives should the need arise, such as in the case of response personnel responding to an emergency situation; and
iii. A list of names, addresses and phone numbers (office and home), if known at the time of submission of the engineering design, of all persons qualified to act as an emergency coordinator for the facility. The final list of names, addresses and phone numbers of such persons shall be submitted as part of the final O and M manual. This list shall be kept up to date. Where more than one person is listed, one shall be named as primary emergency coordinator and the others shall be listed in the order in which they will assume responsibility as alternates.
19. A community relations plan for facilities with a design capacity of 500 tons per day or greater identifying the steps that the owner and/or operator will take to transfer information and solicit input from the community in which the facility is located shall be submitted to the Department. The community relations plan should contain the opportunities and procedure in (a)19i through iii below. The Department shall approve a community relations plan different from that outlined above, provided the plan will inform the public, seek public input and address local concerns.
i. An opportunity for two open meetings with local officials, or their representatives, and the general public of the district affected by the proposed facility prior to and during facility construction. The purpose of such meetings will be to inform the community of the nature of operations proposed for the facility; including the progress of construction and projected initial tipping fees;
ii. An opportunity for an annual open meeting with the local officials, or their representatives, and the general public of the district where the facility is located subsequent to the initial startup of operations. The purpose of these meetings is to allow public input and to provide a forum for exchanging ideas; and
iii. A notification procedure, whereby the public is provided a report of findings in the case of an emergency incident at the facility.
(b) Thermal destruction facility engineering design requirements are as follows:

1. The combustion chambers and ancillary support equipment shall be designed with the capability of handling and effectively disposing of those wastes authorized for receipt at the proposed facility, notwithstanding the expected normal fluctuations in quantity, moisture content, heat release value, and chemical makeup of those wastes;
2. The waste loading system servicing the combustion chamber(s) shall be designed and equipped in such a manner as to minimize the potential for backfire into the feed hopper. To this end, automated waste loading systemsshall be gas tight when operating the forward ram stroke portion of the charging cycle;
3. Combustion chamber interior walls shall be designed to withstand excess corrosion and wear generated by high temperatures and the oxidative-reductive atmosphere;
4. To the maximum extent practicable, except where batch feed or fluidized bed systems are utilized, the primary combustion chamber shall be designed to provide for a positive means of transporting waste into the chamber, through the chamber and to an eventual ash discharge point down line. A conventional ram loading device is not considered an internal transfer mechanism in itself;
5. A vessel shall be designed to quench or cool all siftings and bottom ash that remain after the completion of the primary chamber combustion process. The vessel shall be designed to handle the maximum potential ash volumes that could be generated when the combustion unit is operating at a maximum design throughput capacity. The quench vessel shall be designed to maintain a water level of sufficient height to effectively prevent the infiltration of exterior air into the combustion chamber, while maintaining suitable freeboard to prevent spillage. Quenched ash shall be drained of excess water prior to storage for ultimate disposal;
6. The design of the conveyance systems handling the residue streams shall control fugitive dust by means of an enclosure to protect against direct or indirect human contact with the residue under normal operating conditions;
7. The applicant shall submit documentation that verifies that the facility stack(s) are designed in conformance with the Air Pollution Control regulations, *N.J.A.C. 7:27*, the New Jersey Uniform Construction Code, *N.J.A.C. 5:23*, and the Federal Aviation Administration's limitations relating to infringement to navigable air space. The applicant shall identify the safety lighting option(s) that will be used, or are being considered, to service the stack(s);
8. The boilers employed for the purpose of recovering heat energy shall be equipped with a boiler tube wall cleaning system designed to periodically remove excess accumulations of surface deposits;
9. The steam condenser system servicing a boiler shall be designed with the capability to condense the maximum design output of the boiler without any energy extraction from the process, for the most critical weather conditions of the summer season affecting the ability of the system to reject heat energy to the atmosphere (facilities utilizing the indirect air cooled condensing technology); or in the case where an adjacent water body is to be used as a sink for rejected heat energy, the highest annual water temperature and lowest flow conditions anticipated. The Department will consider reasonable alternatives to this 100 percent steam condensing capability requirement, provided such alternatives are environmentally sound and will maximize facility availability; 10. The feedwater system servicing a boiler shall be designed with the capability of delivering 100 percent of the make-up water requirement of the boiler. The Department will consider reasonable alternatives to this requirement, provided such alternatives are environmentally sound and will maximize facility availability;
11. Facilities shall be designed and constructed in such a manner as to promote an aesthetically pleasing façade in keeping with the architectural character of the area surrounding the site. Facility equipment, including, but not limited to, fans, emission control devices, tanks, storage containers, conveyors' piping and similar equipment shall be housed within the confines of a building structure or shall be buffered in such a manner as to reduce potential negative visual impacts offsite;
12. Facilities shall be designed with sufficient internal storage areas for unprocessed incoming solid waste, facility process waste residues and effluents, and recovered materials, if applicable. The design shall allow for, at a minimum, three days of storage at maximum anticipated loading rates;
13. Facilities shall be designed and equipped with appropriate control mechanisms to minimize, contain and allow for the cleanup of accidental spills or releases of reagents, fuels, lubricants or other materials used in the operation or maintenance of the facility as well as any residues generated by facility operations;
14. Facility waste storage areas shall be designed with the capability of maintaining interior pressure below that of the exterior atmosphere to prevent the migration of odors and dust outside the confines of the waste receiving and storage building. Air drawn off as a result of maintaining negative pressure shall be directed to the combustion chamber. Such control mechanisms shall be designed to effectively operate during all periods when wastes are being received or are in storage at the facility;

15. All facilities, their related subsystems and appurtenances, including all vehicles while on-site, shall be designed, positioned and buffered in such a manner that the sound levels generated by their operation shall not exceed those limits established pursuant to the Noise Control regulations, *N.J.A.C. 7:29*;
16. All waste size reduction equipment, which due to the nature of its operation may have the potential for explosion, shall be designed and equipped with an effective explosion detection and suppression system which shall be situated within the facility in such a manner so as to directionalize the force of any explosion in order to effectively minimize damage to the building and the chances of injury to employees and the public;
17. All facilities shall be designed in a manner that promotes orderly vehicular movement on-site and prevents traffic backups and related traffic hazards on access roads servicing the facility site. The on-site roadway design configuration and layout shall provide sufficient roadway for unobstructed vehicular passage, with parking areas, maneuvering space in the loading and unloading areas, and traffic control measures (that is, lane delineations, signals, signs and barriers), in order to achieve this goal. All on-site roadways used by solid waste vehicles shall be constructed and surfaced in accordance with standards for heavy truck usage;
18. Off-site solid waste vehicle routes for the conveyance of solid waste to, and residues from, the facility shall be defined and delineated in a manner which will minimize impacts on surrounding residential development or similar sensitive receptors. The truck traffic to and from the proposed facility shall not result in an unacceptable decrease in the existing level of service, as described and defined in the New Jersey Department of Transportation Highway Access Management Code (*N.J.A.C. 16:47*), at major intersections located along the designated truck routes;
19. Facilities shall be designed with perimeter security fencing and gate controls to prevent unauthorized access to the site and to control the offsite escape of litter. Metallic chain link fencing, or its equivalent, extending to a height of seven feet shall be the minimum design standard; setback distance shall be provided for between all main building enclosures and the facility's property line. The Department may allow a reduction in the setback limit if the applicant satisfactorily demonstrates that such a reduction will not pose an adverse impact on the adjacent land use activities;
21. Facilities shall be designed with alarm and fire protection systems capable of detecting, controlling and extinguishing fires that may occur at the facility;
22. The interior layout design for all facilities shall provide for system installations that maximize accessibility for repairs, maintenance and ease of cleaning, while affording employee safety;
23. All facilities shall be designed and constructed in full conformance with the specifications and requirements of the Uniform Construction Code, *N.J.A.C. 5:23*;
24. All tipping floors, sorting pads, waste storage areas, bunkers and pits shall be constructed of concrete or other similar quality material that will withstand heavy vehicle usage. Floor drains shall be provided in all such areas and surfaces shall be appropriately graded to facilitate washdown operations. Floor drains shall be designed to discharge wastewater into a collection and treatment system approved by the Department. In those cases where waste or residue storage pits are to be utilized, the base and sidewalls shall be sufficiently waterproofed to prevent ground water intrusion. Tipping floors shall be designed with suitable wheel stops to prevent delivery vehicles overdriving the pit edge;
25. Redundant features or other aspects of system layout shall be incorporated into the facility design to maximize online availability for the receipt and processing of that quantity of waste directed to the facility. Mechanical components shall be constructed of materials that will withstand the rigors of facility operation and shall have a rated handling capacity that prevents backups and blockages within the related system. Replacement equipment and parts for equipment which is subject to excess wear or frequent breakdown due to the nature of operation, shall be stored onsite in order to provide expedient repair. In addition, an adequately sized storage area for replacement equipment and equipment parts shall be incorporated into the design;
26. Where feasible, the facility subsystems shall be equipped with automatic process controls which contain the necessary instrumentation and related feedback mechanisms to ensure that process operational parameters are being met. Automated systems shall be equipped with manual override capabilities. Instrumentation displays and related control mechanisms shall be positioned within the facility in such a manner as to be readily accessible and highly visible for monitoring purposes;
27. The design of the facility shall not place a demand exceeding the remaining use capability of existing physical utilities including, but not limited to, potable and non-potable water supplies, waste water and stormwater collection and treatment, energy supply and transmission, transportation systems, or any other site related infrastructure subsystems, except in those cases where plans have been developed or are being implemented to

provide for the expansion of existing utility systems or establishment of new utility systems which will meet the additional demand generated by the construction and operation of the facility. Copies of existing utility expansion plans and implementation time frames shall be submitted in those cases where such expansions are needed to meet the additional demand described above; and

28. All thermal destruction facilities shall be equipped with an independent, auxiliary power system capable of supplying energy in the case of a power supply failure sufficient to complete a controlled facility shutdown.

7:26-2B.5 Additional engineering design submission requirements and design requirements for transfer stations and materials recovery facilities

(a) The requirements of this section are in addition to the requirements of *N.J.A.C. 7:26-2.10*.

(b) All solid waste transfer stations and materials recovery facilities, except for those regulated pursuant to *N.J.A.C. 7:26-2.4(c)*2, and except as noted in (g) below, shall be designed in accordance with the following:

1. Facilities shall be designed with a system capable of collecting, storing, treating and disposing of wastewater generated during normal operations, including the wash-out and cleaning of equipment, trucks and floors, in compliance with the applicable rules regarding wastewater and stormwater management at *N.J.A.C. 7:14A*;

2. Facilities shall be designed with facility processing, tipping, sorting, loading, storage and compaction areas located within the confines of an enclosed building.

3. Facilities shall be designed with concrete or equivalent tipping floors or ramps to ensure the proper containment and channeling of wastewater to sanitary sewer connections or corrosion resistant holding tanks and to withstand heavy vehicle usage, in compliance with the applicable rules regarding the discharge of wastewater and the utilization of holding tanks at *N.J.A.C. 7:14A* and 7:14B;

4. Facilities' on site roadways and storage areas shall be designed with concrete or asphalt paving in those areas subject to vehicle loading and unloading activities;

5. Facilities shall be designed with sufficient internal storage areas for unprocessed incoming solid waste to ensure an environmentally sound operation and for proper processing of the maximum permitted daily incoming waste loading;

6. Facilities and all appurtenances, including all vehicles while onsite, shall be designed, positioned and buffered in such a manner that the sound levels generated by the operation shall not exceed limits established pursuant to the Noise Control Regulations, *N.J.A.C. 7:29*;

7. Facilities shall be designed in a manner which will prevent the migration of odors and dust outside the confines of the enclosed building;

8. Facilities shall be designed in such a manner so as to afford fluid vehicular movement onsite in accordance with the approved on-site queuing plan and prevent traffic backups and related traffic hazards on access roads servicing the facility;

9. Offsite truck routes for the conveyance of solid waste shall be defined and delineated in such a manner as to minimize impacts on surrounding residential development or similar sensitive receptor. The truck traffic to and from the proposed facility shall not result in an unacceptable decrease in the level of service, as described and defined in the New Jersey Department of Transportation (NJDOT) Highway Access Management Code (*N.J.A.C. 16:47*), at major intersections located along the designated truck routes;

10. Facility layout design shall conform to the configuration of the site. A setback area shall be provided to allow for adequate buffering of the site. All main building enclosures shall be designed with a minimum setback of 50 feet from the facility property line. The Department shall allow a reduction in the setback limit if the applicant satisfactorily demonstrates that such a reduction will not pose an adverse impact on the adjacent land use activities;

11. Facilities shall be designed with alarm and fire protection systems capable of detecting, controlling, and extinguishing any and all fires that may occur. All fire protection systems shall be designed to comply with *N.J.A.C. 5:23-3.17* and the standards established by the National Fire Protection Association (NFPA);

12. The interior layout shall provide for system installations that maximize accessibility for repairs, maintenance, and cleaning, while affording employee safety;

13. Facilities shall be designed and constructed in full conformance with the specifications and requirements of the Uniform Construction Code, *N.J.A.C. 5:23*;

14. The facility shall be designed so as not to place a demand exceeding the remaining use capability of existing physical utilities including, but not limited to, water supply, wastewater and stormwater collection and treatment systems, energy supply and transportation systems; and

15. The proposed ultimate disposal facility and location for all waste processed by the facility shall be

identified.
(c) The site plan map shall include the following:
1. A layout of all facility buildings, structures and roadways which shall indicate the type of construction materials;
2. Profile views of all structures and enclosures showing dimensions. Plan views showing building setback, side and rear distances between the proposed structure and other existing or proposed structures, roadways, parking areas, and site boundaries;
3. Interior floor plan showing the layout, profile view and dimensions of the processing lines, interior unloading, sorting, storage and loading areas; and
4. A description with detailed specifications of the proposed onsite and offsite transportation system which shall indicate the type of construction materials.
(d) The engineering report shall include:
1. Descriptive and detailed specifications of all process equipment to be used, including the equipment's rated and designed capacity. Schematic diagrams shall be provided;
2. Equipment specifications including information pertaining to the make, model and manufacturer, if available, and the related processing equipment, reliability and efficiency shall be submitted;
3. A discussion of the maximum length of time that waste and, where applicable, recyclable materials will be stored at the facility; and
4. A description of any materials recycling or reclamation activities to be operated in conjunction with the facility.
(e) If the facility is to handle liquid or liquid-solid waste mixtures, the proposed methods to protect and monitor the quality of groundwater and nearby surface waters shall be indicated.
(f) If the materials recovery facility is designed with mechanical size reduction equipment, an explosion suppression system shall be included in the engineering design.
(g) Owners or operators of transfer stations who receive, store, treat or transfer only ID 72 liquid wastes are not required to comply with (b)2, 3, 5 and 7 above.
(h) Additional engineering design submission requirements and design requirements for ID 72 liquid waste transfer stations are as follows:
1. ID 72 liquid waste transfer stations are subject to all applicable Spill Prevention, Control and Countermeasure requirements found at 40 C.F.R. Part 112 and all applicable discharge prevention, containment and countermeasure and discharge cleanup and removal requirements found at *N.J.A.C. 7:1E*, in addition to the requirements of this section.
2. Owners or operators of ID 72 liquid waste transfer stations shall not store or treat ID 72 liquid wastes in units other than containers and/or aboveground tanks.
3. Containers and aboveground tanks used to store or treat ID 72 liquid wastes at transfer stations shall be:
i. In good condition (no severe rusting, apparent structural defects or deterioration); and
ii. Not leaking (no visible leaks).
4. Containers and aboveground tanks used to store or treat ID 72 liquid wastes at a transfer station shall be equipped with a secondary containment system meeting the following:
i. The entire containment system, including walls and floor, shall be sufficiently impervious to waste materials to prevent any waste materials released into the containment system from migrating out of the system to the soil, groundwater, or surface water; and
ii. The secondary containment system shall consist of, at a minimum:
(1) Dikes, berms, or retaining walls, and a floor which shall cover the entire area within the dike, berm, or retaining wall; or
(2) A secondary containment system equivalent to (h)4ii(1) above.

7:26-2B.6 Additional engineering requirements for solid waste composting and co-composting facilities

(a) The requirements of this section are in addition to the requirements of *N.J.A.C. 7:26-2.10*.
(b) Co-composting facilities require a SWF permit and may also require one or more NJPDES permits from the Department in accordance with *N.J.A.C. 7:14A*.
(c) The engineering report for these facilities shall include the following:
1. A discussion of the quantity and composition of the waste streams entering the proposed facility in terms of:
i. Municipality of origin; and
ii. Weight, volume and corresponding load density characteristics.
2. If sewage sludge is to be co-composted with solid waste, identify the quantity and physical/chemical

characteristics of each source of sewage sludge. Sludge characteristics will be reviewed by the Department for a determination of their suitability for acceptance and processing at the proposed solid waste composting facility. The following information shall be submitted for each individual source of sludge:
i. Identify the type of processing carried out at the sewage treatment plant source prior to dewatering (e.g. lime stabilization, digestion, long term storage, other);
ii. Identify the dewatering processes instituted, including a description of the equipment or technique used, the chemical reagents employed and a determination of the percent solids achieved;
iii. Express quantities on a dry weight basis and volume of the percent solids delivered to the facility. Identify the maximum, minimum and average delivery rates anticipated; and
iv. Provide a physical/chemical analysis for the sludge from each source, in accordance with the Sludge Quality Assurance regulations, N.J.A.C. 7:14-4. The Department may require additional testing where conditions dictate.
3. A description of the number, type, capacity and delivery or removal frequency (indicate both average and peak periods) of all transport vehicles. Describe on-site parking capabilities, loading and unloading facilities, access and exit points and mechanisms and features employed to provide for an even flow of traffic onto, on and away from the site. Describe the related material construction specifications and details;
4. Identify, locate and describe the utilities intended to service the proposed facility including, but not limited to, the storm water drainage system, sanitary sewer system, water supply system, electrical or other energy system;
5. Process management should be based on specific and objective processing goals. Processing goals should be identified including, but not limited to, rapid processing, drying method, materials handling, nitrogen retention, etc. Describe the underlying conceptual basis or strategy upon which the process management will be based. A rationale should be given for the management strategy chosen in reference to others;
6. Describe all process steps including, but not limited to, waste delivery, storage, mixing, composting methods, curing, screening, finishing, packaging and related process equipment and pollution control systems, instrumentation and monitoring mechanisms, if applicable. Within the context of the process description, identify the mix ratio of solid waste to sludge as well as the bulk weight and porosity of the mix. Provide an indication of the period of time during which active composting is to take place and the temperatures to be reached and maintained within that period. Identify the rate of aeration afforded and the time frame established for compost curing. Submit equipment specifications relating to make, model, manufacturer, processing capacity, reliability, efficiency and the relevant design and operating criteria that directly relates to the equipment's intended performance, plus the number of equipment units which will be available at the facility. Information on individual unit synchronization with upstream and downstream equipment, if applicable, shall also be provided;
7. A comprehensive materials balance for the proposed facility shall be submitted. The materials balance shall account for every handling and processing step starting with waste delivery scheduling to the facility and ending with final product and waste/residue removal from the site. Quantification and qualification of sidestream process pollutants, if any, shall also be provided for in the materials balance. If any materials recovery is anticipated, document the anticipated materials recovery rates in tons per hour for each recovered component;
8. A discussion of the contingency disposal options to be utilized if the composted end product cannot be marketed. These disposal options shall be in accordance with the approved district solid waste management plan and Departmental requirements established for the distribution of sewage sludge compost, if applicable;
9. A process flow diagram of the proposed processing steps involved in recovering recyclable materials and mixed organic material from solid waste, any processing of recovered recyclable materials, and the composting, curing and storage of the mixed organic faction;
10. Profile views of all structures and enclosures showing dimensions;
11. In addition to the requirements of *N.J.A.C. 7:26-2.10(b)*9, the operation and maintenance manual for the facility shall include the following information:
i. A description of the anticipated types, quantity, variation over time, and sources of waste to be received and a description of any additives used in the process;
ii. Designation of persons responsible for operation, control and maintenance of facility;
iii. Methods for measuring incoming waste;
iv. Methods to control the types of waste received (for example, inspection procedures);
v. Methods for removing and recovering for recycling or disposing of non-compostable wastes from the incoming waste stream, including procedures for removal, storage and disposal of any hazardous wastes;
vi. Methods to control traffic and to expedite unloading;
vii. Methods to maintain biological conditions;

viii. Methods to minimize, manage and monitor odors;
ix. Leachate and National Pollutant Discharge Elimination System storm water control measures;
x. Vector, dust and litter control measures;
xi. Contingency operations plan (in the event of equipment failure, power outages, natural disasters, fire, receipt of prohibited materials), including designation of permitted disposal sites for incoming waste, leachate, and for hazardous wastes;
xii. Plans for monitoring, sampling and testing the composting materials for process control and product quality assurance as specified at *N.J.A.C. 7:26-2B.7(i)*; and
xiii. Plans for marketing the finished compost; and
12. A final closure plan containing a schedule and description of the steps necessary to close the facility and financial assurance information.
(d) If a natural ground surface is to be used for storage or if any surface impoundments, lagoons, or other structures for storage or conveyance of leachate, runoff or condensate are proposed, soil borings of the property shall be provided in accordance with the following:
(e) The site plan map shall depict the facility layout on the property and include profile views of all structures, utilities and enclosures showing height, breadth and bulk dimensions. Dimensions for loading, unloading, storage (for example, incoming waste, outgoing product), processing, composting and curing areas shall be provided. Identify the type of drainage system, run-off and leachate control systems. Building setbacks and the distances of any onsite proposed or existing structure, processing area or treatment area, and streets from the site boundaries shall be indicated. The site plan map shall include interior floor plans showing the layout, profile view and dimensions of the interior unloading, sorting, storage, processing, and loading areas as well as auxiliary functional areas such as offices and employees' facilities.
(f) Solid waste composting and co-composting facility engineering design requirements are as follows:
1. The composting structure must withstand wear and tear of normal operations. A roof shall cover the receiving, processing, production and curing areas. Floor structure must be impermeable (10<-7> cm/sec) and be sloped to prevent ponding of liquids and to direct leachate to a leachate collection system. Leachate control shall be provided wherever leachate is generated.
2. All building enclosures shall be designed with a minimum setback of 100 feet from the property line of the facility. Any part of facility operations open to the environment shall be designed with a minimum setback of 2,500 feet from the nearest sensitive environmental receptor.
3. The facility design plan must address management of storm water and leachate:
i. Storm water which does come in contact with material on site shall be considered leachate.
ii. The leachate collection and removal system shall be designed for reuse in processing or treatment as dictated by local authorities.
4. The facility design must provide for:
i. Effective barriers to unauthorized entry and dumping (fencing, gates, locks, etc.);
ii. Adequate access roads to the site;
iii. Appropriate signs (at facility entrance, directing traffic flow, public information);
iv. Access to scales, if applicable;
v. Equipment and methods for achieving odor, noise, vector, dust, and litter control; and
vi. Fire protection and control features.
5. The facility shall have sufficient capacity to handle projected incoming volumes of waste.
6. The facility design must address specific storage issues, including:
i. Capacity for incoming wastes waiting to be processed (three days plus contingency storage);
ii. Capacity for proper handling, storage, and removal of hazardous or other non-permitted wastes delivered to or generated by the facility; and
iii. Capacity for finished compost storage, not to exceed 15 months' production, in accordance with a compost marketing plan.
7. The facility shall have sufficient structural support for operations (waste, equipment, buildings, etc.).
8. The facility design plan should include provisions for operations during wind, heavy rain, snow, freezing or other inclement weather conditions.
9. An occupational health and safety plan established in conformance with the safety and health standards of the Federal Department of Labor, Occupational Safety and Health Administration pursuant to 29 C.F.R. 1926 and 1910 Safety and Health Standards and Industrial Standards.

10. A written training plan which shall include the type and amount of both the initial and annual follow-up training to be provided to facility personnel;
11. The composting process shall meet the criteria for a process to further reduce pathogens (PFRP) as required by the U.S. EPA (40 C.F.R. Part 257). Three methods are accepted:
i. Windrow method, which meets PFRP as follows:
(1) Maintain aerobic conditions; and
(2) A minimum of five turnings over 15 consecutive days, maintaining a temperature of not less that 55 degrees Celcius/131 degrees Fahrenheit.
ii. Aerated static pile method which meets PFRP as follows:
(1) Pile insulated with six to 12 inches of insulating material (for example, sawdust, cured compost, or wood chips); and
(2) Temperature of at least 55 degrees Celcius/131 degrees Fahrenheit maintained throughout mixture for three consecutive days.
iii. Enclosed (within) vessel composting method which meets PFRP by:
(1) Temperature maintained at 55 degrees Celcius/131 degrees Fahrenheit throughout mixture for at least three consecutive days.
iv. Any future PFRP provided by Federal or State regulation.
7:26-2B.7 Additional operational requirements for solid waste composting and co-composting facilities
(a) The requirements of this section are in addition to the general operational requirements of *N.J.A.C. 7:26-2.11* and the solid waste facilities records maintenance requirements of *N.J.A.C. 7:26-2.13*.
(b) The owner and/or operator shall submit a quarterly report to the Department within 30 days after the end of each calendar quarter. The quarterly report shall include the following:
1. The quantity, type and source of incoming waste;
2. The quantity and types of recovered recyclables;
3. The quantity of compost produced;
4. The results of compost analysis;
5. The quantity, before blending, of compost sold or distributed, and markets;
6. The quantity of disposed residue, and sites;
7. Daily temperature readings and retention times during the composting process;
8. A summary of leachate management (collected, reused, and treated/ disposed);
9. A summary of major maintenance on leachate, temperature or other monitoring and control systems in operation; and
10. The standard procedures to assure data reliability.
(c) All compost analysis shall be performed by a laboratory certified pursuant to *N.J.A.C. 7:18*.
(d) The facility shall be operated under the supervision and control of properly trained individuals during all hours of operation, and access to facility shall be prohibited when facility is closed.
1. The owner and/or operator shall train all employees in appropriate facility operations, maintenance procedures, and safety and emergency procedures in accordance with the training plan developed pursuant to *N.J.A.C. 7:26-2B.6(d)*10.
(e) The owner and/or operator shall monitor and record the temperature of composting materials daily to ensure that the pathogen reduction criteria at *N.J.A.C. 7:26-2B.6(f)*11 are met.
(f) The owner and/or operator shall begin processing all incoming waste within three days. Any waste that is not processed within three days shall be sent for disposal. The owner and/or operator shall begin processing incoming waste containing grass within 24 hours unless the receiving area is fully enclosed and equipped with odor controls. For facilities without fully enclosed receiving areas, any waste containing grass that is not processed within 24 hours shall be sent for disposal.
(g) Incoming, unprocessed waste shall not be mixed with finished compost.
(h) Stored finished compost that is not sold or distributed within 15 months shall be removed for disposal or reprocessed for sale or distribution.
(i) In addition to the information required by *N.J.A.C. 7:26-2.13(a)*, the daily record of facility operations shall include:
1. Daily temperature and moisture monitoring of the composting process;
2. Laboratory analyses;
3. The retention time of the composted material; and

4. The sale and distribution of recovered materials.
(j) The owner and/or operator shall develop a quality assurance (QA)/quality control (QC) plan to be included in the final operation and maintenance manual. Such plan shall outline the monitoring, sampling and analysis plans for testing the compost process and product.
(k) The Department shall set an appropriate monitoring and sampling schedule for the start-up period (one year) as part of the facility permit.
(l) Using information gained during the start-up period, a monitoring and sampling schedule for ongoing operations will be developed with the Department based on statistical methods for quality assurance.
(m) Representative samples of the compost shall be obtained in accordance with the approved plan. Samples of the compost produced at the facility shall be analyzed for the compost quality monitoring parameters listed in the Appendix to this subchapter, incorporated herein by reference, in accordance with the appropriate methods as approved in the sampling plan.
(n) Results of all laboratory analyses for each parameter shall be recorded and maintained at the facility and shall be reported to the Department as specified at (b) above.
(o) Any package containing compost offered for sale or distribution shall be labeled with the recommended safe uses and application rates, and restrictions, if any, on use of the product. If compost is offered for bulk sale or distribution, signs or printed literature containing such information shall be made available.
(p) Compost offered for sale or distribution shall satisfy the standards established by the USEPA at 40 C.F.R. 503. Specifically, compost offered for sale or distribution shall meet the pollutant concentrations in *40 C.F.R. 503.13(b)(3),* the Class A pathogen requirements in *40 C.F.R. 503.32(A),* and one of the vector attraction reduction requirements in *40 C.F.R. 503.33(b)(1)* though 503.33(b)8. Compost not satisfying the standards established by the USEPA may be used only as authorized by the Department, or it shall be disposed.
(q) This subsection shall govern the closure and post-closure care of all composting and co-composting facilities.
1. The owner and/or operator of a permitted composting or co-composting facility shall not revise the final closure plan submitted pursuant to (c)12 above without prior approval of the Department. The owner and/or operator may submit an updated final closure plan, containing the proposed revisions to the Department at any time, provided that all revisions are submitted at least 180 days prior to termination of operations at the facility.
2. The owner and/or operator shall notify the Department, in writing, return receipt requested, at least 60 days prior to the date of termination of operations at the facility.
3. The owner and/or operator shall publish notice of termination of operations at the facility in a newspaper of general circulation in the district where the facility is located and in the district(s) or municipality(ies) sending at least 25 percent of their waste to the facility at least 30 days prior to the date of termination of operations at the facility.
4. Within 10 days of ceasing operation, all residuals and waste shall be removed from the site and recycled or disposed and the owner and/or operator shall arrange for a final cleaning of any containers, equipment, machines, floors and facility surfaces having come in contact with solid waste.
5. A composting facility shall be considered finally closed when all the requirements of the closure plan have been met.
7:26-2B.8 Additional operational requirements for thermal destruction facilities
(a) The requirements of this section are in addition to the general requirements of *N.J.A.C. 7:26-2.11*;
(b) Subsequent to completion of the facility construction phase and prior to the initiation of facility operations, the New Jersey licensed professional engineer retained by the applicant to supervise the construction of the facility shall certify in writing to the Department that he or she has personally examined the facility during each major stage of construction and that the facility has been constructed in accordance with the documents, statements, designs and plans submitted to and as approved by the Department.
(c) The owner and/or operator of the facility shall provide written notification to the Department of the intent to initiate the start up of operations at the facility at least 30 days in advance of the planned date. During this initial period of facility start up the Department reserves the right to have a representative present at the facility to observe any equipment testing that is being conducted as well as the right to collect samples to verify results.
(d) Immediately following the initiation of operations, facility personnel shall begin routine inspections for equipment malfunction or deterioration and operating effectiveness, in accordance with the following:
1. The owner or operator shall conduct inspections as indicated in the approved final O and M manual in order to identify and remedy any problems; and

2. The owner and/or operator shall record the results of the inspections in a log book or by means of an electronic storage system approved by the Department which shall be accessible at the facility at all times for inspection by the Department. These records shall include the date and time of the inspection, the name of the inspector, a notation of observations and recommendations and the date and nature of any repairs or other remedial actions taken.
(e) A Department inspector may, at the option of the Department, be stationed at district facilities on a daily basis and during all facility operating hours. The owner and/or operator of such a facility shall allow entry to the inspector at any time during operating hours. The owner and/or operator shall make available office space for Department personnel to prepare inspection reports.
(f) The owner or operator shall implement waste receiving area control procedures that provide for the inspection of the incoming waste stream for the purpose of removing unprocessible or potentially explosive materials prior to the initiation of processing. In addition, the inspection shall effectively prevent the acceptance of unauthorized waste types. These procedures and necessary contingency plans shall be incorporated into the approved final O and M manual.
(g) Should situations arise where the facility experiences equipment or system malfunction to the extent that the waste received cannot be handled or processed in the normal manner, as specified in the facility's SWF permit, then the operator shall notify the Department of the existence of such a situation and the circumstances contributing to the situation within the working day of its occurrence. The operator shall immediately pursue corrective measures. The continued receipt of wastes at the facility shall be limited to that quantity and type that can be handled, stored and processed in conformance with that facility's remaining approved operational capacity.
(h) Arrangements for facility generated waste disposal shall be established and maintained throughout the life of the facility. These waste disposal arrangements shall be in conformance with the Solid Waste Management Plan of the District in which the facility is located and with the rules of the Department.
(i) Unprocessed incoming waste, facility process waste residues and effluents, and recovered materials shall be stored in bunkers, pits, bins, or similar containment vessels and shall be kept at all times at levels that prevent spillage or overflow.
(j) During periods when the facility is not processing wastes and during hours when waste is not being received, waste delivery tipping hall doors shall be kept closed to minimize potential migration of odors and dust to the exterior in accordance with *N.J.A.C. 7:27*.
(k) The delivery of waste to the facility and the removal of residues and recovered products from the site shall be scheduled so as to eliminate traffic backups and allow for fluid vehicular movement on site. Delivery routes shall be clearly delineated and adhered to. Arteries that pass through non-residential areas shall be utilized wherever possible.
(l) Samples and measurements taken for the purpose of monitoring facility process and treatment operations shall be representative of the process or operation and shall be performed in accordance with the conditions of the facility's SWF permit, as well as the requirements of other regulatory agencies where applicable. Monitoring shall be conducted through the use of continuous monitoring instrumentation, where feasible.
(m) Prior to disposal, the owner and/or operator shall perform a waste determination on all residual ash, in accordance with N.J.A.C. 7:26G-6. Such determination shall be based on analyses of representative composite samples collected in the manner specified in the facility's SWF permit. At a minimum the sampling shall include analyses for toxicity characteristics and total dioxins and furans per EPA test method 1613b (EPA report 821/B-94-005), incorporated herein by reference, or equivalent as approved by the Department, and shall be performed at the frequency specified in the facility's SWF permit.
(n) The Department may alter the list of ash test parameters, the methods of sample collection, the analytical procedures employed and the frequency of sampling and analysis deemed necessary. The permittee may request the Department to reduce the number of ash test parameters specified within the solid waste facility permit by applying qualitative knowledge of incoming waste streams. If the owner and/or operator demonstrates through testing that the concentration of any given parameter is consistently below method detection levels as determined using the Toxicity Characteristic Leaching Procedure (TCLP), as defined in USEPA's Test Methods for Evaluating Solid WasteCPhysical/ Chemical Methods SW 846 (SW 846), or the concentration of any given parameter as determined
using a total metals analysis, as defined in SW 846, is consistently below 20 times the regulatory threshold levels of the TCLP, the permittee may request the Department to eliminate those parameters from subsequent analysis.

(o) The analyses required by (m) and (n) above shall be performed in accordance with procedures outlined in the most recent edition of "Test Methods for Evaluating Solid Waste--Physical/Chemical Methods," U.S.E.P.A. publication SW-846.
(p) The results of ash analysis, including the statistical evaluation of the analytical data conducted in accordance with SW 846, and related quality assessment and quality control information pertaining to sample collection, handling and laboratory analytical methodology, shall be submitted to the Department for evaluation. The owner and/or operator shall dispose of the onsite generated residual ash at a facility authorized and permitted to receive the waste type I.D. number assigned to the residual ash by the Department in accordance with its classification.
(q) The operator shall retain original records of all waste analyses and operations' monitoring reports at the facility for a period of three years from the date of measurement.
(r) Records of operations' monitoring and waste analyses required by (q) above shall include:
1. The date, time and place of sampling, measurement or analysis;
2. Chain of custody for all samples collected;
3. The name of the individual who performed the sampling, measurement or analysis;
4. The sampling and analytical methods including the minimum detection levels for the analytical procedure utilized;
5. The results of such sampling, measurement or analyses; and
6. The signature and certification of the report by an appropriate authorized agent for the facility.
(s) The owner and/or operator shall act to prevent accidental or unintentional entry and minimize the possibility for unauthorized entry into the facility. The facility shall have a 24-hour surveillance system which continuously monitors and controls entry to the facility or an artificial or natural barrier which completely surrounds the facility. In addition, the facility shall have a means to control entry at all times through the gates or other entrances to the facility.
(t) The owner and/or operator shall comply with the following requirements pertaining to facility staffing:
1. Facilities shall maintain sufficient personnel during each scheduled shift to assure the proper and orderly operation of all system components, along with the ability to handle all routine facility maintenance requirements. Such personnel shall have sufficient educational background, employment experience and/or training to enable them to perform their duties in such a manner as to ensure the facility's compliance with the requirements of the Act, this chapter, and the conditions of its SWF permit;
2. Each shift shall have a designated shift supervisor authorized by the owner or operator to direct and implement all operational decisions during that shift;
3. A facility utilizing a boiler to generate steam, power or heat shall employ individuals licensed in accordance with the Rules and Regulations of the New Jersey Department of Labor, "Boilers, Pressure Vessels and Refrigeration," *N.J.A.C. 12:90*; and
4. Every district facility shall have under contract a New Jersey licensed professional engineer as a consultant to oversee the general plant operations. This engineer shall possess experience in the design and operation of the major system components or equipment that constitute the facility.
(u) The owner and/or operator shall comply with the following requirements pertaining to facility personnel training:
1. All personnel who are directly involved in facility waste management activities or who operate, service, or monitor any facility equipment, machinery or systems shall successfully complete an initial program of classroom instruction and on-the-job training that includes instruction in the operation and maintenance of the equipment, machinery and systems which they must operate, service or monitor in the course of their daily job duties, and which teaches them to perform their duties in a manner that ensures the facility's compliance with the requirements of the Act, this chapter and the conditions of its SWF permit;
2. The training program shall be directed by a person thoroughly familiar with the technology being utilized at the facility and the conditions of the facility's permits;
3. The training program shall ensure that facility personnel are able to effectively respond to any equipment malfunction or emergency situation that may arise. The training program shall provide instruction in the use of personal safety equipment, procedures for inspecting and repairing facility equipment, the use of communications or alarm systems, the procedures to be followed in response to fires, explosions or other emergencies, and the procedures to be followed during planned or unplanned shutdown of operations;
4. Employees hired shall not work in unsupervised positions until they have completed the training program required herein;

5. Facility personnel shall take part in a planned annual review of the initial training program; and
6. Training records that document the type and amount of training received by current facility personnel shall be kept until closure of the facility. Training records on former employees shall be kept for at least one year from the date the employee last worked at the facility.
(v) The following actions shall be implemented in the case of an emergency:
1. The plant operator or emergency coordinator shall immediately identify the character, exact source, amount and extent of any discharged materials and notify appropriate State or local agencies with designated response roles if their help is needed;
2. Concurrently, the plant operator or emergency coordinator shall assess possible hazards to public health or the environment that may result from the discharge, fire or explosion. This assessment shall consider both direct and indirect effects;
3. If the plant operator or emergency coordinator determines that the facility has had an uncontrolled discharge, a discharge above standard levels permitted by the Department, or a fire or explosion, he or she shall:
i. Immediately notify appropriate local authorities if an assessment indicates that evacuation of local areas may be advisable;
ii. Immediately notify the Department at 1-877-WARNDEP; and
iii. When notifying the Department, report the type of substance and the estimated quantity discharged, if known, the location of the discharge, the action the person reporting the discharge is currently taking or proposing to take in order to mitigate the discharge and any other information concerning the incident which the Department may request at the time of notification.
4. The plant operator shall take all reasonable measures to ensure that fires, explosions and discharges do not recur or spread to other areas of the facility. These measures shall include, where applicable, the cessation of process operations and the collection and containment of released waste;
5. Immediately after an emergency, the plant operator or emergency coordinator shall provide for treating, storing or disposing of waste, contaminated soil or water or any other material contaminated as a result of the discharge, fire or explosion;
6. The plant operator or emergency coordinator shall insure that no waste is processed until cleanup procedures are completed and all emergency equipment listed in the contingency plan is again fit for its intended use;
7. The plant operator or emergency coordinator shall notify the Department and appropriate local authorities when operations in the affected areas of the facility have returned to normal; and
8. Within 15 days after the incident, the plant operator or emergency coordinator shall submit a written report on the incident to the Department. The report shall include, but not be limited to:
i. The name, address and telephone number of the facility;
ii. The date, time and description of the incident;
iii. The extent of injuries, if applicable, with names and responsibilities indicated;
iv. An assessment of actual damage to the environment, if applicable;
v. An assessment of the scope and magnitude of the incident;
vi. A description of the immediate actions that have been initiated to clean up the affected area and prevent a recurrence of a similar incident; and
vii. An implementation schedule for undertaking measures to effect cleanup and avoid recurrence of the incident, if applicable.
7:26-2B.9 Additional operational requirements for transfer stations and materials recovery facilities
(a) At no time shall ID 27 solid waste be subject to mechanized processing, such as grinding, shredding or baling, such that the physical appearance of the material is altered prior to disposal at a designated district facility.
(b) All facility processing, tipping, sorting, loading, storage and compaction of materials (that is, solid waste and mixtures of solid waste and recyclable materials) shall occur within the confines of an enclosed building.
(c) The installation, maintenance, operation, and repair of all systems identified within the interior layout of the facility shall comply with the requirements established by the Federal Occupational Health and Safety Administration and the New Jersey Worker and Community Right to Know Act.
(d) The queuing and staging of solid waste vehicles on any public roadway is prohibited.
(e) The queuing and staging of solid waste vehicles shall be conducted in accordance with the approved on-site queuing plan for the facility so as to prevent traffic backups and related traffic hazards on access roads servicing the facility.

(f) Owners or operators of transfer stations who receive, store, treat or transfer only ID 72 liquid wastes are not required to comply with (a) and (b) above.
(g) Additional operational requirements for ID 72 liquid waste transfer stations are as follows:
1. The following are the label standards for ID 72 liquid waste transfer facilities:
i. Containers and above ground tanks used to store or treat ID 72 liquid wastes at transfer stations shall be labeled or marked clearly with the words "ID 72 Waste"; and
ii. Piping used to transfer ID 72 liquid wastes to and from containers and/or aboveground tanks at transfer stations shall be labeled or marked clearly with the words "ID 72 Waste."
2. The following are the waste analysis requirements for ID 72 liquid waste transfer facilities:
i. Before an owner or operator receives, stores, treats or transfers any ID 72 liquid waste, the owner or operator shall obtain a detailed chemical and physical analysis of a representative sample of the waste. At a minimum, the analysis shall contain all the information which must be known to receive, store, treat or transfer the waste in accordance with this chapter.
ii. The analysis required by (g)2i above may include existing published or documented data on the waste, or on wastes generated from similar processes.
iii. The analysis shall be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis shall be repeated:
(1) When the owner or operator is notified, or has reason to believe, that the process or operation generating the waste has changed; and
(2) When the results of the inspection required in (g)2iv below indicate that the waste received at the transfer facility does not match the waste designated on the accompanying shipping paper.
iv. The owner or operator of an ID 72 liquid waste transfer station shall inspect and, if necessary, analyze each waste shipment received at the facility to determine whether it matches the identity of the waste specified on the accompanying shipping paper.
3. The following are incompatible wastes requirements for ID 72 liquid waste transfer facilities:
i. Owners or operators of ID 72 liquid waste transfer stations that receive, store, treat or transfer incompatible wastes or mixtures of incompatible wastes and other materials shall take precautions to prevent reactions which:
(1) Generate extreme heat or pressure, fire or explosions, or violent reactions;
(2) Produce uncontrolled toxic mists, fumes or gases in sufficient quantities to threaten human health or the environment;
(3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fires or explosions;
(4) Damage the structural integrity of the equipment or the facility; or
(5) Through other like means threaten human health or the environment.
ii. The owner shall document compliance with (g)3i(1) through (5) above. This documentation may be based on references to published scientific literature, data from trial tests (for example, bench scale or pilot scale tests), waste analyses, or the results of the treatment of similar wastes by similar treatment processes and under similar operating conditions.
4. Upon detection of a release of ID 72 liquid waste to the environment at a transfer station, the owner/operator shall perform the following cleanup steps:
i. Stop the release;
ii. Contain the released waste materials;
iii. Clean up and manage properly the released wastes and other materials; and
service.
7:26-2B.10 (Reserved)
N.J.A.C. 7:26-2B, Appx. (2009)

New Mexico

TITLE 20 ENVIRONMENTAL PROTECTION
CHAPTER 9 SOLID WASTE
PART 3 SOLID WASTE FACILITY PERMITS AND REGISTRATIONS

20.9.3.1 ISSUING AGENCY. New Mexico Environmental Improvement Board.
[20.9.3.1 NMAC - Rp, 20 NMAC 9.1.I.001, 08/02/07]

20.9.3.2 SCOPE. This part applies to the transportation, storage, transfer, processing, transformation, recycling, composting, nuisance abatement and disposal of solid waste.
[20.9.3.2 NMAC - Rp, 20 NMAC 9.1.I.002, 08/02/07]

20.9.3.3 STATUTORY AUTHORITY. NMSA 1978, Sections 74-1-1 to 74-1-15, NMSA 1978, Sections 74-9-1 to 74-9-43, and NMSA 1978 Sections 74-13-1 to 74-13-20.
[20.9.3.3 NMAC - Rp, 20 NMAC 9.1.I.003, 08/02/07]

20.9.3.4 DURATION. Permanent.
[20.9.3.4 NMAC - Rp, 20 NMAC 9.1.I.004, 08/02/07]

20.9.3.5 EFFECTIVE DATE. August 2, 2007, unless a later date is cited at the end of a section.
[20.9.3.5 NMAC - Rp, 20 NMAC 9.1.I.005, 08/02/07]

20.9.3.6 OBJECTIVE. The objective of Part 3 of Chapter 9 is to establish regulations in the following areas of solid waste management:

A. solid waste facility permits;
B. permitting procedures, application review, issuance, denial and revocation;
C. permit modification, transfer, renewal and expiration;
D. registration of composting and recycling facilities, collection centers and air curtain incinerators;
E. nuisance abatement plans;
F. commercial hauler registrations;
G. registration of haulers of special waste; and
H. fee schedules.

[20.9.3.6 NMAC - Rp, 20 NMAC 9.1.I.0016, 08/02/07]

20.9.3.7 DEFINITIONS. [RESERVED]
[See 20.9.2.7 NMAC for Definitions.]

20.9.3.8 PERMIT APPLICATION REQUIREMENTS.

A. Any person seeking to construct, operate, modify or close a solid waste facility shall first obtain a permit.

B. Any person who owns or operates an existing solid waste facility for which a permit application has not been submitted shall submit a permit application within one year of the effective date of this part. If the facility is a landfill that seeks to close rather than continue to operate, the owner or operator shall submit a plan for closure and post closure care for approval within one year of the effective date of this part. The closure and post closure care plan shall meet the requirements of 20.9.6 NMAC.

C. Any person seeking a permit to construct, operate or modify a solid waste facility shall file an application, which shall:

(1) contain all information required by the Solid Waste Act and 20.9.2 - 20.9.10 NMAC;
(2) comply with Permit Procedures - Environment Department, 20.1.4 NMAC;
(3) contain information required by Section 74-9-21 of the Solid Waste Act, and if applicable, disclosure statements shall be on forms provided by the department;
(4) provide site information including:
(a) the name and address of the applicant, property owner, and solid waste facility owner and operator;
(b) total acreage, legal description and maps of the proposed facility site, including land use and zoning of the site and adjacent properties;
(c) a description of the facility's water source and its location;
(d) a description of the prevailing winds, including a wind rose diagram;
(e) a demonstration of compliance with the siting criteria in 20.9.4.9-12 NMAC;
(f) facility plans and drawings of the existing or proposed facility, with corresponding elevations and contours, signed and sealed by a professional engineer registered in New Mexico; and
(g) the latitude and longitude of the geographical center of the existing or proposed facility (as approved by the department) in NAD-83 or equivalent;
(5) contain a plan for compliance with 20.9.4.17 NMAC, if appropriate;
(6) contain an operating plan for compliance with operational criteria, including

(a) the means for controlling access to the facility and controlling and mitigating odors and litter;

(b) a listing and description of the number, type and size of equipment to be used at the proposed solid waste facility for processing, recovering, diversion of recyclables, transforming or disposing of solid wastes;

(c) a description of the proposed solid waste facility, including:

(i) the anticipated origin, composition and weight or volume of solid waste and other materials that are projected to be received at the facility;

(ii) the processes to be used at the facility;

(iii) the daily operational methodology of the proposed process;

(iv) the loading rate, the expected life of the facility; and

(v) the design capacity through the expected life of the facility and through the permit life of the facility;

(d) a plan for an alternative waste handling or disposal system during periods when the proposed solid waste facility is not in operation, including procedures to be followed in case of equipment breakdown; procedures may include the use of standby equipment, extension of operating hours and contractual agreements for diversion of waste to other facilities;

(e) the anticipated start-up date of the facility;

(f) the planned operating hours of the proposed facility;

(g) the plans for transportation to and from the facility including:

(i) the size and approximate number of vehicles that will deliver waste to the facility daily;

(ii) the anticipated routes that will be used by waste vehicles and the suitability of roads and bridges involved;

(iii) measures for controlling litter, dust and noise caused by traffic;

(iv) other predicted impacts of traffic to and from the facility; and

(v) plans, if any, for diverting solid waste from the waste stream; and

(h) a plan for complying with record keeping requirements in 20.9.5.16 NMAC as applicable;

(7) contain an emergency contingency plan that meets the requirements of 20.9.5.15 NMAC;

(8) contain a closure and post-closure care plan in compliance with 20.9.6 NMAC;

(9) demonstrate the ability to comply with any applicable special waste requirements in 20.9.8 NMAC;

(10) contain a proposed ground water monitoring system plan in compliance with 20.9.9 NMAC, including, if site assessment bore holes are drilled to obtain data, a certification that the holes were plugged or sealed in accordance with the New Mexico office of state engineer's requirements for plugging or sealing of test holes, or will be converted to monitoring wells as part of the ground water monitoring system;

(11) include a cost estimate in accordance with the requirements of 20.9.10 NMAC, in a format as specified by the department; and

(12) contain any other information required by the secretary.

D. Any person seeking an initial permit for a landfill or a transformation facility, or for a permit modification of a landfill resulting in a lateral or vertical expansion, excluding an on-site scrap tire monofill, shall first submit to the secretary the information that is necessary for the secretary to determine if the proposed site is in a vulnerable area. If the secretary determines that the site or the proposed site is in a vulnerable area, and the applicant is proposing to site the facility, or expand the facility, in an area that has not been designated for the proposed use as the result of a land-use zoning process conducted by the local government that requires a quasi-judicial public hearing, with the opportunity for public participation, the applicant shall follow the following procedures.

(1) Prior to filing the application, the applicant shall give notice to the public of its proposed plans, and of the procedures allowing residents to file comments on the proposal with the department. This notice shall contain the following.

(a) For a proposed new facility, the name and location of the proposed facility, a description of the proposed facility, a description of any transportation routes to be used to and from the proposed facility and expected hours of operation, contact information stating where a person may obtain further information from the applicant, contact information for the environment department solid waste bureau, and procedures for filing comments on the proposal with the department. The notice shall be approved by the department prior to publication. The notice shall also give notice of a community meeting for the purpose of informing the surrounding community of the plans for the proposed facility, and for taking comments and questions. The meeting shall not be held less than 30 days following publication of the notice.

(b) For a proposed permit modification of a landfill resulting in a lateral or vertical expansion, the name and location of the facility, a description of the proposed modification, a description in any changes in operation resulting from the modification, contact information stating where a person may obtain further information from the applicant, contact information for the environment department solid waste bureau, and procedures for filing comments with the department. The notice shall be approved by the department prior to publication. The notice shall also give notice of a community meeting for the purpose of informing the surrounding community of the plans for the proposed facility. The community meeting shall not be held less than 30 days following publication of the notice.

(2) Community residents shall have 60 days following the community meeting to submit comments to the department. If the secretary determines that there is significant community opposition to the proposed landfill; transformation facility; or permit modification resulting in a lateral or vertical expansion, excluding on-site scrap tire monofill, then the secretary shall require that the applicant prepare a community impact assessment. If a community impact assessment is required, the applicant shall give notice of a scoping meeting, pre-assessment meeting and opportunity for comment on the resulting community impact assessment. The applicant can either provide combined notice or separate notices of each event. At the scoping meeting, the public shall be given the

opportunity to identify specific concerns regarding the proposed facility or modification, and the applicant will advise the public that the issues listed below will be addressed in a community impact assessment. The public will be asked if additional issues should be included in the scope of the assessment, if existing issues need additional consideration, and if the community impact assessment should be produced in a language in addition to English. The secretary may order that the assessment be produced in a language in addition to English based on, but not limited to expressions of interest at the scoping meeting. After the applicant incorporates public input from the scoping meeting, the applicant shall hold a pre-assessment meeting to describe the final scope of the study to the public. The public shall be given opportunities to make comments and raise questions at this meeting. Before completion of the community impact assessment, a draft assessment shall be issued and made available to the public for comment. The public shall be allowed to submit comments on the assessment to the applicant for a period of 30 days following the issuance of the draft assessment. The applicant shall consider the comments and modify the community impact assessment as appropriate. The applicant shall file the community impact assessment, all written comments, and the applicant's resolution of the comments with its application. The community impact assessment shall contain an executive summary that is in English and, if appropriate, in any other predominant language of the community, and in plain language so it can be understood by the residents of the community. At a minimum the community impact assessment will address, to the extent New Mexico residents are affected, the following issues in the four mile radius around the proposed facility or existing facility that is proposing a horizontal or vertical expansion:

(a) description of:
  (i) purpose and need for the project;
  (ii) site location and description;
  (iii) land use;
  (iv) known existing and documented proposed regulated facilities within the vulnerable area;
  (v) other existing development and documented planned development in the vulnerable area;
  (vi) historic and cultural resources;
  (vii) visual and scenic resources; and
  (viii) climatology, meteorology, and air quality, including odors and dust;

(b) socioeconomic profile and environmental justice:
  (i) population, demographic profile, education, age and language; and
  (ii) occupational profile and household income;

(c) noise;

(d) litter;

(e) transportation;
  (i) local roads and highways;
  (ii) railroads;
  (iii) other transportation issues;
  (iv) access to facility;
  (v) air quality, including odors and dust;
  (vi) noise; and
  (viii) traffic;

(f) public and occupational health and safety issues;

(g) positive and negative socioeconomic impacts:
  (i) local employment;
  (ii) community services;
  (iii) revenue to local funds;
  (iv) property values;
  (v) property taxes;
  (vi) cost effective disposal of community solid waste; and
  (vii) other quality of life concerns raised at public meetings;

(h) cumulative and individual impacts of the proposed facility, other existing development and other planned development submitted to a local government within the vulnerable area, to:
  (i) land use in the area;
  (ii) historical and cultural resources;
  (iii) visual and scenic resources;
  (iv) air quality, including odors and dust;
  (v) socioeconomics and environmental justice, including population, demographic profile, education, age, language, occupational profile and household income;
  (vi) transportation;
  (vii) unavoidable adverse environmental impacts; and
  (viii) analysis of short-term, intermediate term and long term effects of the proposed facility;

(i) summary of reasonable mitigation measures proposed to address the facility's contribution to any expected adverse impacts; these measures may include but are not limited to:
  (i) historical and cultural resources impact mitigation measures;
  (ii) visual and scenic resource impact mitigation measures;
  (iii) air quality impact mitigation measures, including for odors and dust;

(iv) socioeconomic and environmental justice impacts mitigation measures;
(v) noise impact mitigation measures;
(vi) transportation impact mitigation measures; and
(vii) public and occupational health impacts mitigation measures; and

(j) consultation, coordination and public involvement:
(i) agencies and local governments consulted;
(ii) public involvement;
(iii) responsive summary; and
(iv) comments.

E. If the proposed landfill, transformation facility or landfill modification resulting in a lateral or vertical expansion is proposed in a vulnerable area, or is not sited in an area that has been designated for the proposed use as the result of a land-use zoning process conducted by the local government that requires a quasi-judicial public hearing, with the opportunity of public participation, the applicant shall demonstrate that, within the state of New Mexico, granting the permit or permit modification will not result in a disproportionate effect on the health and environment of a particular socioeconomic group in the vulnerable area.

F. If the proposed initial landfill or transformation facility permit, or landfill modification resulting in a lateral or vertical expansion is not in a vulnerable area, or is sited in an area that has been designated for the proposed use as the result of a land-use zoning process conducted by the local government that requires a quasi-judicial public hearing, with the opportunity for public participation, the applicant is not required to prepare a community impact assessment.

G. Each permit application filed with the secretary shall include proof that the applicant has provided notice of the filing of the application and any community impact assessment scoping meetings, pre-assessment meetings or other notifications required by 20.9.2 - 20.9.10 NMAC, and unless otherwise specified by 20.9.2 - 20.9.10 NMAC, to the public and other affected individuals and entities. The notice shall:

(1) be provided by certified mail to the owners of record, as shown by the most recent property tax schedule, and tax exempt entities of record, of all properties:

(a) within one hundred feet of the property on which the facility is located or proposed to be located if the facility is or will be in a class A or class H county or a municipality with a population of more than two thousand five hundred (2,500) persons; or

(b) within one-half mile of the property on which the facility is located or proposed to be located if the facility is or will be in a class B county or municipality with a population of 2,500 or less;

(2) be provided by certified mail to all municipalities and counties in which the facility is or will be located and to the governing body of any county, municipality, Indian tribe or pueblo when the boundary of the territory of the county, municipality, Indian tribe or pueblo is within ten miles of the property on which the facility is proposed to be constructed, operated or closed;

(3) be provided to all parties and interested participants of record for a permit modification or renewal;

(4) be published once in a newspaper of general circulation in each county where the facility is proposed to be constructed, operated or closed; this notice shall appear in either the classified or legal advertisements section of the newspaper and at one other place in the newspaper calculated to give the general public the most effective notice; notice also shall be provided to residents of each community that is or will be affected significantly by the existing or proposed solid waste facility at least once in one or more other media in a manner that effectively reaches a substantial number of members of each community, and where printed shall be printed in both English and Spanish;

(5) be posted in at least eight publicly accessible and conspicuous places, including the proposed or existing entrance to the property on which the facility is or is proposed to be located; and

(6) include the following:

(a) name, address, and telephone number of the applicant and contact person;

(b) the anticipated start-up date of the facility or modification, and planned hours of operation;

(c) a description of the facility, including the general process, location, size, quantity, rate, and type of waste to be handled and a description of any proposed modification;

(d) the anticipated origin of the waste; and

(e) a statement that comments regarding the application should be provided to the applicant and the department.

H. Notices shall be submitted to the department for approval prior to publication, service and posting. The applicant shall submit a certificate from an American translators association certified translator showing that English versions have been accurately translated into Spanish.

[20.9.3.8 NMAC - Rp, 20 NMAC.9.1.II.201, 08/02/07]

20.9.3.9 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR MUNICIPAL, MONOFILL OR SPECIAL WASTE LANDFILL FACILITIES.

A. Prior to the submission of a permit application or an application for a modification resulting in a lateral or vertical expansion for a municipal, monofill or special waste landfill, the applicant shall:

(1) meet with department representatives to discuss the proposed facility or modification; and

(2) submit a site assessment boring plan for departmental approval, including a demonstration that the installation of any monitoring well will comply with 20.9.9.9 NMAC:

(a) an applicant for approval of a site assessment boring plan shall submit a notice of intent to the secretary at least 14 days prior to the installation or decommissioning of any borings; and

(b) borings may be converted into piezometers or ground water monitoring wells provided they are constructed in accordance with 20.9.9.9 NMAC, and the conversion is consistent with the ground water monitoring plan and system plan approved by the department.

B. Any person seeking a permit for a municipal or special waste landfill shall submit the following information in addition to that required under 20.9.3.8 NMAC:

(1) a schedule of filling and methods of compaction of solid waste;

(2) a soil balance calculation and types and sources of daily, intermediate and final cover;

(3) site plans and cross-sections of the facility, drawn to scale, indicating the location of any:

(a) ground water monitoring wells and landfill gas monitoring points;

(b) materials recovery operation(s);

(c) borrow and fill areas;

(d) fire protection equipment;

(e) barriers for concealing the site from public view and noise abatement;

(f) surface drainage;

(g) water supply, including lines, tanks and wells;

(h) buildings, roads, utilities, storage ponds, fences and other site improvements;

(i) electric power transmission and distribution lines, pipelines, railroads, water, gas, oil wells, and public and private roads within 300 feet of the facility; and

(j) access roads to and within the landfill, including description, slopes, grades, length, load limits and points of entrance and exit;

(4) a topographic map of the site at a scale of 1"=200 feet, with a contour interval of two feet or less where relief is less than 50 feet; and five feet or less where relief exceeds 50 feet, with property boundaries of the landfill indicated;

(5) the most recent full size United States geological survey topographic map of the area, showing the waste facility boundary and existing utilities and structures within 500 feet of the boundary of the facility site;

(6) if available, the most recent federal emergency management agency 100-year frequency floodplain map, and if not available, the applicant shall otherwise demonstrate the site is not located in a 100-year frequency floodplain;

(7) a description of site geology and hydrology including:

(a) characterization of the uppermost aquifer including depth, estimated thickness, estimated sustainable yield, water quality (including all constituents referenced in Subsection A of 20.9.9.20 NMAC, flow direction, gradient and velocity unless the application includes a petition for suspension of ground water monitoring requirements in accordance with Subsection C of 20.9.9.8 NMAC;

(b) characterization of the geology, including:

(i) the results of the site assessment borings conducted in accordance with the approved boring plan;

(ii) a site plan showing the location, surface elevation and total depth of each boring;

(iii) lithologic log results of each boring, drawn to a scale of 1"=10' (except that borings of greater than 200 feet may be drawn to a scale of 1"=20'), graphically depicting the soil and/or rock strata penetrated and describing each layer; a) if soil: color, degree of compaction, moisture content, and any additional information necessary for an adequate description and visual classification of each stratum based on the unified soils classification system; and b) if rock: a detailed lithologic description, including rock type, degree of induration, presence of fractures, fissility, porosity (including vugs), and any other information necessary for an adequate description; the descriptions shall be certified by a qualified ground water scientist who shall be on-site at all times during drilling operations (all field notes of the ground water scientist shall be made available upon request of the department); and

(iv) if ground water was encountered, the initial depth it was encountered shall be indicated on the lithologic log;

(8) a demonstration that run-off from the landfill will not discharge contaminants in violation of the New Mexico Water Quality Act, commission regulations or standards, or the Federal Clean Water Act, including an analysis of proposed run-on and run-off flow and control systems;

(9) a groundwater monitoring plan in conformance with 20.9.9.10 NMAC;

(10) plans and specifications for ground water monitoring systems in accordance with 20.9.9.9 NMAC;

(11) plans and specifications for liner and leachate collection systems in accordance with 20.9.4.13 NMAC and 20.9.4.15 NMAC;

(12) plans and specifications for landfill gas monitoring and management programs in accordance with 20.9.4.16 NMAC; and

(13) provide proof the applicant has notified the federal aviation administration and the affected airport if the facility is to be located within six miles of an airport used by the public and that the federal aviation administration does not object to the site being operated as a solid waste facility.

C. Applicants shall include disposal management plans for all types of special waste proposed to be disposed at the landfill. Such disposal management plans shall include, at a minimum:

(1) a description of methods to identify the various special wastes, including the use of test parameters in 20.9.8.11 NMAC;

(2) disposition procedures for incoming special wastes;

(3) procedures for notifying the department in the event wastes either fail the tests listed in 20.9.8.11 NMAC or prove

not to be one of the listed special wastes;

(4) the tracking system to be used to:

(a) compile and record the amounts and types of wastes received;

(b) identify the area or disposal coordinates where the waste was placed in the disposal cell; and

(c) complete the manifest requirements of 20.9.8.19 NMAC;

(5) emergency and mitigation measures in case of a spill or leak; and

(6) a description of procedures to meet applicable requirements in 20.9.8.12-17 NMAC.

D. Applicants shall identify any types of material not within the definition of solid waste that the owner or operator seeks to dispose.

[20.9.3.9 NMAC - Rp, 20 NMAC 9.1.II.202, 08/02/07]

20.9.3.10 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR CONSTRUCTION AND DEMOLITION LANDFILLS. Any person seeking a permit for a construction and demolition landfill shall submit the following information in addition to that required under 20.9.3.8 NMAC:

A. site plans and cross-sections of the proposed facility, drawn to scale, indicating the location of:

(1) the tipping areas;

(2) fencing and gates;

(3) entrances, exits and access roads;

(4) locations of buildings within 500 feet of the facility;

(5) public water supply wells and private wells within 1000 feet of the facility; and,

(6) borrow and fill areas;

B. frequency of construction and demolition debris disposal; and

C. if recycling operations are conducted, the method of diversion and storage of the recyclable materials, the frequency of collection for reuse from the facility, method of transport, and destination; the recycling operation shall comply with 20.9.3.29 NMAC.

[20.9.3.10 NMAC - Rp, 20 NMAC 9.1.II.203, 08/02/07]

20.9.3.11 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR PROCESSING FACILITIES AND FOR RECYCLING FACILITIES THAT ACCEPT SOLID WASTE THAT ACCOMPANIES THE RECYCLABLE MATERIAL.

A. Any person seeking a permit for a processing facility or for a recycling facility that accepts solid waste shall submit the following information in addition to that required under 20.9.3.8 NMAC:

(1) a description of the survey and analysis process used to determine the characteristics of all solid waste expected to be accepted or processed;

(2) plans and elevations, drawn to scale, of all structures used for processing, storage, alternate storage, and disposal of waste materials;

(3) a process description of the sampling capability and locations designed into the facility so the process stream can be safely sampled and analyzed;

(4) a description of the methods to be employed for the containment or removal of residues and spills in a manner that protects the public health, welfare, safety and the environment; and

(5) an operation and maintenance manual that addresses all of the operating requirements.

B. Any person seeking a permit for a processing facility that will process special waste shall, in addition to the requirements of this section, submit the following additional information:

(1) the proposed location and method for storage or processing of liquid or solid residues and end products produced by operation of the facility;

(2) the process for separation, storage and disposal of waste generated by the process, including the temporary storage of wastes;

(3) the minimum and maximum volumes of the types of material or solid waste to be stored prior to processing or disposal, and the minimum and maximum time that material or waste will be stored;

(4) facility plans and elevations, drawn to scale, and specifications including:

(a) equipment layout;

(b) the most recent full size United States geological survey topographic map of the area, showing the waste facility boundary, the property boundary, and existing utilities and structures within 500 feet of the property boundary;

(c) the location of electric power transmission and distribution lines, pipelines, railroads and public and private roads within 300 feet of the proposed facility;

(d) the processing unit, with loading area and residue removal;

(e) all conveyors, ramps and other devices used to move material through the facility;

(f) control room and equipment; and

(g) pollution control equipment;

(5) an operations and maintenance manual that includes:

(a) current policies and procedures;

(b) the operating requirements for the various stages of processing; and

(c) all information that would enable supervisory and operating personnel, and persons evaluating the operation

of the facility, to determine the sequence of operation, plans, diagrams, policies, procedures and legal requirements which must be followed for orderly and successful operations;

(6) a description of the facility operation which includes:

(a) a sequential description of the major components used for the processing of the solid waste starting from its delivery at the facility and continuing through the treatment and loading operations;

(b) procedures for facility start-up, and scheduled and unscheduled shut downs;

(c) a description of potential safety hazards and methods of control, including, but not limited to, arrangements to detect explosion potential and equipment installed to minimize the impact of explosion; and

(d) a description of personnel safety equipment and protective gear, including, but not limited to, showers, eye wash, fire extinguishers, hoses, hard hats, safety goggles, hearing protection, and proposed personnel hygiene facilities;

(7) an operations plan that includes all plant systems complete with process flow and instrumentation diagrams and heat and material balances; and

(8) residue testing methods and procedures.

[20.9.3.11 NMAC - Rp, 20 NMAC 9.1.II.204 NMAC, 08/02/07]

20.9.3.12 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR TRANSFORMATION FACILITIES.

A. Any person seeking a permit for a transformation facility shall submit the following information in addition to that required under 20.9.3.8 NMAC:

(1) the composition of the waste to be received at the facility;

(2) the method to be used to convert the waste into a feedstock for the transformation process, including material separation and recovery systems;

(3) if the transformation process is other than biological, a characterization of the feedstock used as the design basis of the facility that shows:

(a) composition by material type; and

(b) physical and chemical properties, including moisture content, ash content, and higher heating value;

(4) if the transformation is by means of a biological process, a characterization of the feedstock used as the design basis of the facility that shows:

(a) composition by material type;

(b) physical and chemical properties, including moisture content and percent organic and inorganic matter;

(c) process efficiency, as measured by conversion of volatile solids; and

(d) end products or residue;

(5) the proposed location and method for disposal, storage or processing of liquid or solid residues and end products produced by operation of the facility;

(6) the process for separation, storage and disposal of waste generated by the process, including the temporary storage of bulky wastes;

(7) the minimum and maximum volumes of the types of material or solid waste to be stored prior to sale, reuse or disposal, and the minimum and maximum time that material or waste will be stored;

(8) facility plans and elevations, drawn to scale, and specifications including:

(a) equipment layout;

(b) the most recent full size United States geological survey topographic map of the area, showing the waste facility boundary, the property boundary, and existing utilities and structures within 500 feet of the property boundary;

(c) the location of electric power transmission and distribution lines, pipelines, railroads and public and private roads within 300 feet of the proposed facility;

(d) the transformation unit, with feed area and residue removal;

(e) all conveyors, ramps and other devices used to move material the facility;

(f) control room and equipment; and

(g) pollution control equipment;

(9) an operations and maintenance manual that includes:

(a) current policies and procedures;

(b) the operating requirements for the various stages of transformation; and

(c) all information that would enable supervisory and operating personnel, and persons evaluating the operation of the facility, to determine the sequence of operation, plans, diagrams, policies, procedures and legal requirements which must be followed for orderly and successful operations;

(10) a description of the facility operation which includes:

(a) a sequential description of the major components used for the treatment of the solid waste starting from its delivery at the facility and continuing through the residue and ash treatment and loading operations;

(b) procedures for facility start-up, and scheduled and unscheduled shut downs;

(c) a description of potential safety hazards and methods of control, including, but not limited to, arrangements to detect explosion potential and equipment installed to minimize the impact of explosion; and

(d) a description of personnel safety equipment and protective gear, including, but not limited to, showers, eye wash, fire extinguishers, hoses, hard hats, safety goggles, hearing protection, and proposed personnel hygiene facilities;

(11) an operations plan that includes all plant systems complete with process flow and instrumentation diagrams and

heat and material balances; and

(12) residue testing methods and procedures.

B. The design and operation of the transformation facility shall conform to all applicable codes and standards including, but not limited to, the American society of testing materials, the American national standards institute, the American society of mechanical engineers, the American concrete institute, and the uniform building code, most recent edition, as well as the building code requirements in the city, county, or municipality in which the facility is to be located.

C. Within 30 days of permit issuance, the permittee shall submit to the department a comprehensive project schedule that indicates each major design, procurement, construction, and start-up activity in a properly sequenced and coordinated fashion. Progress reports shall be submitted at least once a month indicating major activities accomplished and percentage of work completed.
[20.9.3.12 NMAC - Rp, 20 NMAC 9.1.II.205 NMAC, 08/02/07]

20.9.3.13 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR SOLID WASTE FACILITIES THAT ACCEPT SPECIAL WASTE. Any person seeking a permit to accept special waste at a solid waste facility shall submit the following information in addition to that required under 20.9.3.8 NMAC:

A. a list of the types of wastes to be accepted and the anticipated sources of such wastes;

B. the anticipated amount and frequency of receipt of the wastes, including the anticipated amount of each type of special waste expected to be accepted over the life of the permit;

C. a description of the method of handling, including, but not limited to, disposal, processing, or transformation;

D. a general disposal management plan, in accordance with 20.9.8 NMAC, for each type of special wastes proposed to be accepted at the facility; and

E. emergency and mitigation measures in case of a spill or leak.
[20.9.3.13 NMAC - Rp, 20 NMAC 9.1.II.206 NMAC, 08/02/07]

20.9.3.14 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR COMPOSTING FACILITIES THAT ACCEPT SOLID WASTE. Any person seeking a permit for a composting facility that accepts solid waste shall submit the following information in addition to the information required by 20.9.3.8 NMAC.

A. Operating plans for the facility, including, but not limited to, the origin, expected composition and weight or volume of materials to be composted, the process, the loading rate, the proposed capacity of the facility, proposed size and operational rate, and the expected disposition rate of the compost from the facility.

B. The composition and weight or volume of the non-compostable solid waste to be received at the facility.

C. The process or method used to separate the non-compostable solid waste from the compostable material.

D. The disposal path for the non-compostable solid waste.

E. A characterization of the feedstock used as the design basis of the composting facility shall be included showing:

(1) composition by material type;

(2) physical and chemical properties including moisture content and percent organic and inorganic matter; and

(3) process efficiency as measured by conversion of volatile solids.

F. A description of methods used to assure that rodents and other animals will be kept from the facility.

G. For composting facilities that accept sewage sludge, a plan showing testing methods and procedures for compliance with 40 CFR 503 and 20.6.2 NMAC.

H. A demonstration that a groundwater discharge permit has been applied for, if applicable.
[20.9.3.14 NMAC - Rp, 20 NMAC 9.1.II.207 NMAC, 08/02/07]

20.9.3.15 ADDITIONAL PERMIT APPLICATION REQUIREMENTS FOR TRANSFER STATIONS.

A. Any person seeking a permit for a transfer station shall submit the following information in addition to that required by 20.9.3.8 NMAC:

B. plans and elevations, drawn to scale, of all structures proposed to be used for handling and storage of solid waste and diversion of recyclables;

C. a site plan of the proposed facility, drawn to scale, indicating the location of:

(1) storage, loading and unloading areas;

(2) fencing and gates;

(3) entrances, exits, and access roads; and

(4) area map showing locations of structures within 100 feet of the facility boundary;

D. methods of collection, treatment, or disposal of waste water from the facility;

E. the frequency of solid waste and recyclables deposit and pick-up from the facility, method of transport, and destination;

F. specific operational procedures, including traffic patterns and procedures for handling recyclables, household hazardous waste, white goods, bulky items, tires, yard refuse, and used oil; and

G. a demonstration that the facility will be capable of handling the predicted waste stream.
[20.9.3.15 NMAC - Rp, 20 NMAC 9.1.II.208 NMAC, 08/02/07]

20.9.3.16 PERMITTING PROCEDURES.

A. The permitting procedures in 20.9.3.8 - 20.9.3.25 NMAC supplement the permitting requirements in the Solid

Waste Act and Permitting Procedures - Environment Department, 20.1.4 NMAC.

B. A permit shall be issued only after a public hearing as required by NMSA 1978 Section 74-9-24 A of the Solid Waste Act. If a public hearing is held for a permit application, modification, renewal, or petition, the applicant shall pay one-half the actual cost of:

(1) court reporting services, including the cost to provide a copy of the transcript to the department;

(2) any translation or interpretation services; and

(3) providing the facility where the public hearing is held, including any security and ancillary costs.

C. The department shall submit an invoice to the applicant for payment. Payment shall be made before action on a permit will be finalized. A public entity may seek a waiver of payment for its share of hearing costs if it demonstrates to the secretary that payment would impose a financial hardship to the entity.

[20.9.3.16 NMAC - Rp, 20 NMAC 9.1.II.212 NMAC, 08/02/07]

20.9.3.17 PERMIT APPLICATION REVIEW.

A. The applicant shall submit three copies of the initial permit application for approval. Upon receipt of an application for a permit, the department shall review the application to determine if additional information is necessary or shall determine the application administratively complete. The department shall issue a notice of administrative completeness or a notice that additional information is necessary within 120 days after receipt of the application and within 90 days of any subsequent responses to requests for further information. The secretary may extend the time for good cause.

B. In the event the department requests additional information, the applicant shall submit any information requested within 120 days of receipt of the first request, and 90 days of receipt of subsequent requests, or the application may be denied without prejudice. The secretary may extend the response time for good cause, and set up an alternative permit review schedule. When submitting the information in response to a request for additional information, the applicant shall submit three copies. If the permit application is not administratively complete after two requests for additional information, the secretary may deny the permit application without prejudice. This subsection is not intended to limit informal informational exchanges during the permit review period or prior to submission of an application. Denial of a renewal application under this subsection does not automatically terminate the existing permit of a facility.

C. Within 14 days after the application is deemed administratively complete, the applicant shall submit to the department:

(1) six complete new copies of the application; and

(2) an updated list of all property owners as specified in Subsection G of 20.9.3.8 NMAC; the list must be date stamped and signed by the appropriate county agent, or certified as accurate by the applicant as of the date the application is deemed complete.

D. Acceptance of the application as administratively complete allows the permit application to be processed according to the permitting procedures. Acceptance of the application as administratively complete is not an indication that the department supports the permit without conditions or that it will be approved.

[20.9.3.17 NMAC - Rp, 20 NMAC 9.1.II.212 NMAC, 08/02/07]

20.9.3.18 PERMIT ISSUANCE.

A. The secretary shall issue a permit if the applicant demonstrates that the requirements of 20.9.2 - 20.9.10 NMAC and the Solid Waste Act are met and that neither a hazard to public health, welfare or the environment nor undue risk to property will result.

B. The secretary shall consider the information in the community impact assessment and any demonstrations made pursuant to Subsection E of 20.9.3.8 NMAC, together with other information in the record, in any decisions to issue, issue with conditions or deny the permit.

C. The terms and conditions of the permit or permit modification shall be specifically identified by the secretary.

D. Multiple contiguous facilities may be permitted under one solid waste facility permit provided each facility meets the applicable requirements of 20.9.2 - 20.9.10 NMAC and the Solid Waste Act.

[20.9.3.18 NMAC - Rp, 20 NMAC 9.1.II.212 NMAC, 08/02/07]

20.9.3.19 PERMIT DENIAL OR REVOCATION.

A. In addition to the causes for denial or revocation listed in Subsections A and B of 74-9-24 of the Solid Waste Act and 20.9.3.18 NMAC, the secretary may deny or revoke a permit during its term for:

(1) a material violation of any term or condition of the permit, any requirement of 20.9.2 - 20.9.10 NMAC, or any requirement of the Solid Waste Act by the owner or operator, after taking into consideration the seriousness of the violation, any good faith efforts to comply with the applicable requirements and other relevant factors;

(2) failure of the applicant in the application or during the permit issuance process to disclose fully all material facts;

(3) misrepresentation by the owner or operator of any material facts at any time;

(4) a determination that the permitted activity endangers public health, welfare or the environment;

(5) failure of the owner or operator to demonstrate the knowledge and ability to operate a facility in accordance with 20.9.2 - 20.9.10 NMAC; and

(6) a history of non-compliance by the owner or operator with environmental regulations or statutes at another facility.

B. A permit shall be revoked in accordance with the procedures set forth in Adjudicatory Procedures - Environment

Department, 20.1.5 NMAC. Construction, modification and operation, if any, shall cease upon the effective date of the revocation.
[20.9.3.19 NMAC - Rp, 20 NMAC 9.1.II.212 NMAC, 08/02/07]

20.9.3.20 EFFECT OF PERMIT.

A. Any terms or conditions of the permit shall be enforceable to the same extent as a regulation of the board.

B. The existence of a permit issued under 20.9.2 - 20.9.10 NMAC shall not constitute a defense to a violation of 20.9.2 - 20.9.10 NMAC or the Solid Waste Act.
[20.9.3.20 NMAC - Rp, 20 NMAC 9.1.II.212 NMAC, 08/02/07]

20.9.3.21 PERMITTED FACILITIES - DUTIES PRIOR TO OPERATION.

A. At least 14 days prior to the start of solid waste facility construction, the owner or operator shall provide the department with a major milestone schedule.

B. After a permit is granted for a solid waste facility or for the expansion of a solid waste facility, and at least 14 days prior to disposal, processing, or transforming of any solid waste at the solid waste facility or expansion, the owner or operator shall:

(1) provide to the department a written notice of construction completion with "as built" construction drawings signed and sealed by a registered professional engineer; and

(2) for landfills, provide the department a quality assurance/quality control report, certified by a registered professional engineer licensed in New Mexico and experienced in liner installation, for construction of the liner and leachate collection system.

C. The owner and operator shall prohibit the disposal, processing, or transformation of solid waste at a new or modified portion of a solid waste facility until the department has either inspected the solid waste facility or modified portion and determined that the site has been developed in accordance with the permit or permit modification, 20.9.2 - 20.9.10 NMAC and the Solid Waste Act, or the department fails to inspect the solid waste facility within 30 calendar days of receipt of written notice of construction completion and any quality assurance/quality control report or engineer's certification that the facility or modification has been constructed in accordance with the permit or permit modification, 20.9.2 - 20.9.10 NMAC and the Solid Waste Act, and that a quality assurance/quality control report is being prepared.

D. The owner and operator shall prohibit the disposal, processing, or transformation of solid waste at a new or modified portion of a solid waste facility until the owner or operator has secured financial assurance and has submitted appropriate documentation to the department prior to the initial receipt of waste at a new or modified portion of a solid waste facility.
[20.9.3.21 NMAC - N, 08/02/07]

20.9.3.22 PERMIT OR FACILITY MODIFICATION.

A. Any owner or operator of a solid waste facility who seeks to modify such facility or permit conditions shall obtain a permit modification prior to making any modifications. A permit modification shall not extend the initial term of any permit.

B. An application for a modification shall demonstrate compliance with the portions of 20.9.2 - 20.9.10 NMAC that pertain to such a modification.

C. The secretary may initiate the modification of permit conditions or require modification of the facility if:

(1) changes occur after permit issuance which justify permit conditions that are different from or are not included in the existing permit;

(2) the secretary has received information that was not in the record at the time of permit issuance and would have justified the application of different permit conditions at the time of issuance;

(3) the standards or regulations on which the permit was based have changed by statute, through promulgation of new or amended standards or regulations, or by judicial decision after the permit was issued;

(4) the secretary determines good cause exists for modification, such as an act of God, strike, flood, or materials shortage, or other events over which the permittee has little or no control and for which there is no reasonable remedy.

D. All permit modifications, whether initiated by the owner or operator or by the secretary, shall be subject to Permit Procedures - Environment Department, 20.1.4 NMAC and permitting procedures in this part.
[20.9.3.22 NMAC - Rp, 20 NMAC 9.1.II.210 NMAC, 08/02/07]

20.9.3.23 TRANSFER OF PERMITS AND CHANGE IN PERMIT APPLICANT.

A. A change in ownership of a permitted entity requires a permit transfer and shall be allowed according to the following procedure.

(1) Where a permitted entity undergoes a change in ownership, but the permitted entity remains the same, the new owner shall, within 30 days after the change submit the following:

(a) a description of the change in ownership;

(b) the date of the change in ownership;

(c) a statement that the current financial assurance will remain in effect, or a new proposed financial assurance to meet the requirements of 20.9.10 NMAC;

(d) information required by Section 74-9-21 of the Solid Waste Act, and if applicable, disclosure statements shall be submitted for the new owner on forms provided by the department;

(e) a statement whether the new owner has been convicted of a felony or other crime within 10 years

immediately preceding the date of the transfer, and if so details of the crime and conviction;

(f) a statement whether the new owner has been fined within the past 5 years for alleged violations of any environmental laws of this state, any other state or the United States, and if so, details of any allegations, settlements or compliance orders;

(g) proof of public notice of the change in ownership; and

(h) any other information required by the secretary.

(2) The permittee shall provide public notice of the ownership change by publishing once in a newspaper of general circulation in the county where the facility is located, and shall indicate in the public notice that the department will accept public comment on the ownership change for a period of 30 days after the date of publication.

(3) The existing financial assurance required by 20.9.10 NMAC shall remain in effect until the secretary has approved any new proposed financial assurance submitted by the new owner.

B. A change in the permittee requires a permit transfer and shall be allowed according to the following procedure.

(1) Where the person owning the permit seeks to transfer the permit to a new person to be named as permittee, the existing owner and the proposed new owner shall file an application with the department requesting transfer of the permit. The application shall contain the following information:

(a) a description of the proposed change of permittee;

(b) an explanation of whether the change in permittee will have any effect on the operations;

(c) a new proposed financial assurance to meet the requirements of 20.9.10 NMAC;

(d) information required by Section 74-9-21 of the Solid Waste Act, and if applicable, disclosure statements shall be submitted for the new proposed permittee on forms provided by the department;

(e) a statement whether the new owner has been convicted of a felony or other crime within 10 years immediately preceding the date of the transfer, and if so, details of the crime and conviction;

(f) a statement whether the new owner has been fined within the past five years for alleged violations of any environmental laws of this state, any other state or the United States, and if so, details of any allegations, settlements or compliance orders;

(g) proof of public notice of the proposed change in permittee; and

(h) any other information required by the secretary;

(2) The permittee shall provide public notice of a proposed permit transfer by publishing once in a newspaper of general circulation in the county where the facility is located, and shall indicate in the public notice that the department will accept public comment on the permit transfer for a period of 30 days after the date of publication.

(3) The existing financial assurance required by 20.9.10 NMAC shall remain in effect until the secretary has approved any new proposed financial assurance submitted by the proposed new permittee.

C. If a permit applicant changes ownership or seeks to transfer the application to a new proposed permittee, the applicant and transferee shall follow the procedures in this section. If the application has already been deemed complete, the application shall be re-noticed and re-submitted.

[20.9.3.23 NMAC - Rp, 20 NMAC 9.1.II.211 NMAC, 08/02/07]

20.9.3.24 PERMIT REVIEW. No later than 60 days before a permit review is required by Section 74-9-24 of the Solid Waste Act, the owner or operator shall submit to the department a complete description of the following:

A. facility operations;

B. compliance history;

C. environmental monitoring results, releases, and any remediation;

D. changes in information from the disclosure forms;

E. any other technical requirements requested by the secretary;

F. financial assurance;

G. any behavior or incidents of the nature described in Subsection B of 74-9-24 of the Solid Waste Act; and

H. proof of public notice of the review provided in accordance with Section 74-9-22 of the Solid Waste Act and 20.9.2 - 20.9.19 NMAC.

[20.9.3.24 NMAC - Rp, 20 NMAC 9.1.II.212, 08/02/07]

20.9.3.25 PERMIT RENEWAL.

A. To renew a permit, the owner or operator of a solid waste facility shall file a permit renewal application no later than 12 months prior to the expiration date of the facility permit. A permit renewal application shall include a complete description of the following:

(1) facility operations;

(2) compliance history;

(3) environmental monitoring results, releases, and any remediation;

(4) changes in information from the most recent disclosure forms filed with the department;

(5) any other technical requirements requested by the secretary;

(6) financial assurance;

(7) any behavior or incidents of the nature described in Subsection B of 74-9-24 of the Solid Waste Act;

(8) compliance demonstrations under Subsection A of 20.9.4.9 NMAC; and

(9) proof of public notice of the renewal application provided in accordance with Section 74-9-22 of the Solid Waste Act.

B. A solid waste facility may continue to operate under the terms and conditions of the existing permit until the renewal permit is issued or denied provided that:

(1) the owner and operator are in compliance with the existing permit, 20.9.2 - 20.9.10 NMAC, the Solid Waste Act, and any federal regulations which apply;

(2) a permit renewal application was submitted in a timely fashion in accordance with this section; and

(3) the owner or operator submits any requested additional information by the deadline(s) specified by the secretary.

C. The secretary may establish new deadlines for the permit renewal application if the application is denied under 20.9.3.17 NMAC. The secretary may issue an order for the revocation of the existing permit if the provisions in Subsection B of 20.9.3.17 NMAC are not met.

[20.9.3.25 NMAC - Rp, 20 NMAC 9.1.II.212, 08/02/07]

20.9.3.26 PERMIT EXPIRATION; AUTOMATIC CLOSURE.

A. A permit shall automatically expire when the secretary verifies that the closure and any post-closure care plan, including corrective action, have been completed.

B. If a permitted facility begins operation, and thereafter suspends operation in full for at least five years, authorization to accept waste is suspended and closure activities shall begin.

[20.9.3.26 NMAC - Rp, 20 NMAC 9.1.II.212, 08/02/07]

20.9.3.27 REGISTRATION OF RECYCLING AND COMPOSTING FACILITIES THAT ACCEPT ONLY SOURCE SEPARATED RECYCLABLE OR COMPOSTABLE MATERIALS, COLLECTION CENTERS AND AIR CURTAIN INCINERATORS.

A. The owner or operator of the following facilities shall file an application for a registration at least 30 days prior to any operations and every five years thereafter. Existing facilities of the type listed below shall apply for a registration at least 30 days prior to the expiration of their existing permit or registration, or within two years after the effective date of these regulations, whichever occurs first. Facilities covered by this section that do not timely file a complete application for registration are hereby deemed unpermitted solid waste facilities, and the owner or operator may be subject to penalties, permit requirements and nuisance abatement orders. Facilities required to register are:

(1) recycling facilities that accept only source separated recyclable materials;

(2) composting facilities that accept only source separated compostable materials;

(3) collection centers;

(4) small animal crematoria; and

(5) air curtain incinerators.

B. Registration is not required for a recycling facility that accepts only source separated recyclable materials and accepts the recyclables for less than seven days in any calendar year.

C. Registration is not required for collection facilities that are part of a commercial hauler operation, that have an operational rate of less than 240 cubic yards per day monthly average, and that do not serve the general public, but such facilities shall be included in the registration of the commercial hauler under Paragraph (10) of Subsection A of 20.9.3.31 NMAC.

D. Any person who is required to register under this section with the department shall provide the following information:

(1) the name, address, and telephone number of the business, owner, operator and contact person;

(2) the anticipated start up date (unless it is an existing operation);

(3) a legal description, and map of the proposed facility site, including land use and zoning of the site and surrounding area, including setbacks;

(4) a description of means that will be used to prevent the facility from becoming a public nuisance, including:

(a) signs to indicate the location of the site, the hours of operation, emergency telephone numbers, delivery instructions, and that fires and scavenging are prohibited;

(b) storage containers that are leak-proof and manufactured of non-biodegradable material;

(c) means to control litter and prevent and extinguish fires;

(d) conducting any recycling operations in a safe and sanitary manner;

(e) storing any recyclable materials in a manner that does not create a nuisance, harbor vectors, or create a public health hazard;

(f) providing sufficient unloading areas to meet peak demands;

(g) for collection centers, providing separate storage areas for bulky wastes, such as brush, white goods, appliances and scrap tires, and removing the bulky wastes at a frequency approved in the registration;

(h) for collection centers, confining unloading of solid waste to as small an area as possible;

(i) for collection centers, removal of solid waste from the center at the end of the operating day unless otherwise approved in the registration;

(j) a means of controlling access to the facility;

(k) a means of controlling and mitigating noise and odors;

(l) operating plans for the facility, including, but not limited to, the origin, expected composition and weight or

volume of materials to be composted or recycled or incinerated, the process, loading rate, proposed capacity, size and operational rate, and the expected disposition rate of the recyclables, compost, ash or waste from the facility;

(m) for composting facilities that accept sewage sludge, a plan showing testing methods and procedures for compliance with 40 CFR 503 and 20.6.2 NMAC;

(n) for composting facilities, a demonstration that a groundwater discharge permit has been applied for, if applicable;

(o) for air curtain incinerators, a copy of the air quality permit, registration or notice of intent filed with the air quality bureau;

(p) for air curtain incinerators, a designation of the intended recipient of ash waste; and

(q) any additional information requested by the secretary.

E. The owner or operator shall comply with the terms of its approved registration.

F. A violation of the terms of an approved registration may be deemed to be a public nuisance or the facility may be deemed to be an unpermitted solid waste facility subject to enforcement orders under the Solid Waste Act.

G. The owner or operator of a facility required to be registered under this section shall update its registration to reflect any material change in its operations.

H. The owner or operator of a recycling facility, composting facility, collection center, small animal crematorium or an air curtain incinerator shall not create a public nuisance. Failure to comply with the terms of the registration may be deemed a public nuisance. If the secretary determines, based on the information submitted with the registration or based upon any other information that the facility will be or has become a public nuisance, or that a facility covered by this section is in violation of the Solid Waste Act or 20.9.2 - 20.9.10 NMAC, the secretary may deny the registration, issue an order requiring the owner or operator to abate the public nuisance, or may issue any other order pursuant to the Solid Waste Act or 20.9.2 - 20.9.10 NMAC, or any combination thereof. The owner or operator or other affected person may appeal the secretary's order by filing a request for hearing within 30 days of the date of the secretary's order. The appeal shall be conducted in accordance with the procedures in 20.1.5 NMAC, Adjudicatory Procedures- Environment Department.

I. The owner or operator of every recycling facility and composting facility shall have a certified operator or representative present at all times while the facility is being operated.

J. The owner or operator of a recycling facility or composting facility that accepts only source separated recyclable or compostable material shall submit an annual report to the department within 45 days from the end of each calendar year, describing the operations of the past year. The reports must be certified as true and accurate by the owner or operator and shall include:

(1) the type and weight or volume of recyclable material received during the year;

(2) the type and weight or volume of recyclable material sold or otherwise disposed off site during the year;

(3) final disposition of material sold or otherwise disposed off-site; and

(4) any other information requested by the secretary.

K. The owner or operator of a recycling facility, composting facility or collection center that conducts a tire recycling operation shall comply with the applicable operating procedures required by 20.9.20 NMAC.

[20.9.3.27 NMAC - Rp, 20 NMAC 9.1.II.213, 08/02/07]

20.9.3.28 ADDITIONAL REGISTRATION REQUIREMENTS FOR COMPOSTING FACILITIES THAT ACCEPT GREATER THAN 25 TONS PER DAY COMPOSTABLE MATERIAL OR GREATER THAN 5 TONS PER DAY OF MATERIAL THAT WOULD OTHERWISE BECOME SPECIAL WASTE.

A. Any person operating or proposing to operate a composting facility that accepts greater than 25 tons per day annual average compostable material or greater than 5 tons per day annual average of material that would otherwise become special waste (e.g. sludge, offal, petroleum contaminated soils), shall submit the following information in addition to that contained in 20.9.3.27 NMAC:

(1) site plans and cross-sections of the proposed facility, drawn to scale, indicating the location of buildings, access roads, entrances and exits, drainage, material storage and treatment areas, utilities, fences and other site improvements;

(2) the composition of the waste to be received at the facility;

(3) the method to be used to convert the waste into a feedstock for the composting process, including material separation and recovery systems;

(4) a characterization of the feedstock used as the design basis of the facility which describes:

(a) composition by material type;

(b) physical and chemical properties including:

(i) moisture content; and

(ii) percent organic and inorganic matter; and

(iii) process efficiency as measured by conversion of volatile solids;

(5) a description of the composting process to be used, including:

(a) the method of measuring, shredding, and mixing materials;

(b) temperature monitoring equipment and the location of all temperature and any other type of monitoring points, and the frequency of monitoring;

(c) the method of moisture control, including moisture quantity, source, monitoring and frequency of monitoring;

(d) a description of any proposed additive material, including its quantity, quality, and frequency of use;

(e) special precautions or procedures for operation during high wind, heavy rain, snow and freezing conditions;

(f) estimated composting time duration;
(g) for windrow systems, the windrow construction, including width, length, and height;
(h) the method and frequency of aeration; and
(i) for in-vessel composting systems, a process flow diagram of the entire process, including all major equipment and flow streams;

(6) a general description of the ultimate use for the finished compost and method for removal from the site;

(7) for composting facilities accepting sewage sludge, a plan for compliance with 40 CFR Part 503, including, but not limited to, reporting, composting methods and times, and testing methods and frequencies; and

(8) a demonstration that the ground water will be protected and will comply with all applicable ground water protection standards, including those specified in 20.6.2 NMAC.

B. The owner operator of a composting facility that is designed to or does accept more than 5 tons per day annual average of material that would otherwise be special waste or more than 25 tons annual average of total compostable material per day shall submit a nuisance abatement plan detailing how it will comply with 20.9.3.30 NMAC if so ordered.

C. The owner operator of a composting facility that is designed to or does accept more than 5 tons per day annual average of material that would otherwise be special waste or more than 25 tons annual average of total compostable material per day shall submit a financial assurance mechanism in compliance with 20.9.10.1- 20.9.10.13 NMAC, in order to assure sufficient funds in the event that the secretary requires abatement of a nuisance at the facility. The financial assurance mechanism must be approved by the secretary prior to the operation of the facility.

D. The owner or operator of a composting facility that is designed to or does accept more than 5 tons per day annual average of sludge or more than 25 tons of total compostable material per day annual average shall keep records sufficient to demonstrate that its inventory of compostable material or end product does not exceed the inventory used for purposes of estimating the cost of abatement of a nuisance pursuant to Paragraph (2) of Subsection A of 20.9.10.9 NMAC. If the records are insufficient to make this demonstration, or the records are not produced at the request of the department, storage of the materials are hereby deemed illegal disposal of solid waste and the facility is hereby deemed to be an unpermitted solid waste facility and the owner or operator may be subject to penalties, permitting requirements and nuisance abatement orders.

[20.9.3.28 NMAC - N, 08/02/07]

20.9.3.29 ADDITIONAL REQUIREMENTS FOR RECYCLING FACILITIES THAT DO NOT ACCEPT SOLID WASTE.

A. A recycling facility that does not accept solid waste shall include, in its registration application filed pursuant to 20.9.3.27 NMAC, a plan for disposal of solid wastes that are unavoidably collected.

B. A recycling facility that does not accept solid waste shall keep records sufficient to demonstrate the following:

(1) that it takes reasonable measures to assure that it accepts only source separated recyclable materials and solid wastes are not accepted;

(2) that after an initial accumulation period, the quantity of recyclable materials that were recycled during each successive calendar year was at least 75 percent of the quantity of recyclable materials in inventory; the accumulation period is to be based on a three year rolling average of the facility's stock of the recyclable material at the end of the previous calendar year; and

(3) that the inventory of recyclable materials or end product does not exceed the inventory used for purposes of estimating the cost of abatement of a nuisance pursuant to Paragraph (2) of Subsection A of 20.9.10.9 NMAC.

C. If the operating procedures and records are insufficient to make the demonstrations in Subsection B of this section, or the records are not produced at the request of the department, storage of the materials are hereby deemed illegal disposal of solid waste and the facility is hereby deemed an unpermitted solid waste facility and the owner or operator may be subject to penalties, permitting requirements and nuisance abatement orders.

D. The owner operator of a recycling facility that is designed to or does accept more than 25 tons per day annual average per calendar year of recyclable material shall submit a nuisance abatement plan detailing how it will comply with 20.9.3.30 NMAC if so ordered.

E. The owner operator of a recycling facility that is designed to or does accept more than 25 tons per day annual average per calendar year of recyclable material shall submit a financial assurance mechanism in compliance with 20.9.10.9-13 NMAC, in order to assure sufficient funds in the event that the secretary requires abatement of a nuisance at the facility. The financial assurance mechanism must be approved by the secretary prior to the operation of the facility.

F. The owner or operator of a recycling facility that is designed to or does accept more than 25 tons per day annual average of recyclable material shall have a certified operator or representative present at all times while the facility is operational.

[20.9.3.29 NMAC - N, 08/02/07]

20.9.3.30 REQUIREMENTS FOR FACILITIES REQUIRED TO SUBMIT NUISANCE ABATEMENT PLANS.

Owners or operators of composting facilities that accept greater than 25 tons per day annual average of compostable material or greater than 5 tons per day of what would otherwise be special waste, and recycling facilities that accept greater than 25 tons per day annual average of recyclable materials shall comply with the following requirements when ordered by the secretary for the purpose of abating a nuisance:

A. cleanup and disposal of all recyclable or compostable material;
B. cleanup and disposal of all end product from the composting or recycling facility; and
C. cleanup and disposal of all fugitive trash, solid waste, or other materials creating a nuisance at the facility.

[20.9.3.30 NMAC - N, 08/02/07]

20.9.3.31 REGISTRATION OF COMMERCIAL HAULERS AND HAULERS OF SPECIAL WASTE.

A. Commercial haulers of solid waste and any haulers that transport special waste shall register with the department 30 days prior to beginning operations and every five years thereafter, and shall submit the following information:

(1) the name, address, and telephone number of the operation for which registration is sought, and the name, address, telephone number, date of birth, driver's license number, and social security number of the owner and operator, unless the owner and operator are public entities or are a publicly held corporation that has on file and in effect with the federal securities and exchange commission a registration statement required under 15 U.S.C. Section 77e (c);

(2) the anticipated start up date, hours of operation, and days of collection;

(3) a list of types of storage containers required for residences, commercial, institutional and industrial establishments to be served;

(4) location of vehicle maintenance yard;

(5) certification that drivers, trailers and vehicles are, and will continue to be, properly licensed or registered;

(6) means of controlling and mitigating odors;

(7) the transport distance from the nearest and farthest points of collection to the solid waste facility where the waste will be disposed;

(8) any transfer requirements;

(9) location of transfer station(s) to be used, if any;

(10) the name and location of any storage or collection or solid waste disposal facility to be used, and including;

(a) the size and type of all storage and collection facilities to be used; and

(b) methods use to mitigate odor and litter from any storage and collection facilities to be used;

(11) an outline of proposed training for drivers and crew to be able to differentiate between hazardous waste, special waste and other solid waste;

(12) certification that the waste identification training program will be implemented;

(13) a statement whether any of the owners or operators have been fined for violation of any environmental laws of any state or the United States (for owners or operators that are public entities or publicly held corporations, this statement may be limited to fines for violations within the last 5 years and within the state of New Mexico);

(14) a statement whether any of the owners or operators have had any permit or registration revoked or permanently suspended for cause under the environmental laws of any state or the United States (for owners or operators that are public entities or publicly held corporations, this statement may be limited to revocations or suspensions within the last 5 years and within the state of New Mexico); and

(15) if applicable, proof that a current valid warrant has been issued by the New Mexico public regulation commission, or in the case of a public entity hauling special waste, proof of financial responsibility.

B. All haulers that transport special waste, in addition to the requirements of Subsection A of this section, shall:

(1) register with the department on a form provided by the department;

(2) submit the exact locations and permit number(s) of solid waste facilities to be used;

(3) submit a contingency plan to address potential emergency situations to the department for approval; and

(4) submit a list of contents of clean-up kits to be carried in each vehicle used for hauling.

C. Commercial waste haulers registered prior to the effective date of these regulations shall register pursuant to this section within two years after the effective date of these regulations.

[20.9.3.31 NMAC - Rp, 20 NMAC 9.1.II.214, 08/02/07]

20.9.3.32 COMMERCIAL HAULER REGISTRATION PROCEDURES.

A. The registration procedures in 20.9.3.31-36 NMAC apply to commercial haulers of solid waste.

B. Upon receipt of an application for registration, the department shall review the application to determine if additional information is necessary or shall deem the application complete. If the department determines that additional information is necessary, it shall notify the applicant in writing;

C. Within 60 days of receipt of a request for additional information regarding any commercial hauler registration application, the owner or operator shall submit the information requested by the department, or the secretary may deny the registration application without prejudice.

[20.9.3.32 NMAC - N, 08/02/07]

20.9.3.33 COMMERCIAL HAULER REGISTRATION ISSUANCE.

A. Within 30 days after an application for a commercial hauler registration is deemed complete, the secretary shall issue the registration, issue the registration with terms and conditions, or deny the registration.

B. The secretary shall issue a registration if the owner or operator demonstrates that the requirements of 20.9.2 - 20.9.10 NMAC and the Solid Waste Act are met and that neither a hazard to public health, welfare or the environment nor undue risk to property will result.

C. The terms and conditions of a registration shall be specifically identified by the secretary.

[20.9.3.33 NMAC - N, 08/02/07]

20.9.3.34 REGISTRATION DENIAL, REVOCATION, OR SUSPENSION.

A. The secretary may deny, revoke, or suspend a commercial hauler registration on the basis of information in the application or evidence in the administrative record, or both, after taking into consideration the seriousness of the violation, any good faith efforts to comply with the applicable requirements and other relevant factors.

B. Causes for denying, revoking, or suspending a registration include a finding that the applicant or owner or operator has:

(1) knowingly misrepresented a material fact in the application, or at any time after issuance of the registration;

(2) refused to disclose or failed to disclose the information required under the provisions of 20.9.2 - 20.9.10 NMAC or the Solid Waste Act;

(3) exhibited a history of willful disregard for the environmental laws of any state or the United States;

(4) had any permit revoked or permanently suspended for cause under the environmental laws of any state or the United States; or

(5) violated a term or condition of the registration, any requirement of 20.9.2 - 20.9.10 NMAC, or any requirement of the Solid Waste Act.

C. If the department recommends denial of a commercial hauler registration, notice shall be provided to the applicant by registered mail. The applicant may request a hearing on the registration denial by filing a written request for hearing with the hearing clerk within 30 days of receipt of the notice. A request for hearing shall be treated as a hearing determination and the hearing conducted pursuant to 20.1.4 NMAC. If no request for hearing is filed within 30 days of receipt of the notice, the recommended denial shall become a final action of the secretary.

D. A commercial hauler registration may be revoked or suspended in accordance with the procedures set forth in 20.1.5 NMAC, Adjudicatory Procedures - Environment Department. Construction, modification and interim operation, if any, shall cease upon the effective date of the revocation or suspension.

[20.9.3.34 NMAC - N, 08/02/07]

20.9.3.35 EFFECT OF REGISTRATION.

A. Any terms or conditions of the registration shall be enforceable to the same extent as a regulation of the board.

B. The existence of a registration issued under 20.9.2 - 20.9.10 NMAC shall not constitute a defense to a violation of 20.9.2 - 20.9.10 NMAC or the Solid Waste Act.

[20.9.3.35 NMAC - N, 08/02/07]

20.9.3.36 REGISTRATION RENEWAL.

A. A commercial hauler shall renew its registration every five years. To renew a registration, the commercial hauler shall file a complete renewal application no later than 30 days prior to the expiration date of the registration. A registration renewal application shall include the same information required in 20.9.3.31 NMAC, and in addition provide a complete description of its compliance history and any other information requested by the secretary.

B. A registered commercial hauler may continue to operate under the terms and conditions of the existing registration until the registration renewal is issued or denied provided that:

(1) the owner and operator are in compliance with the existing registration, 20.9.2 - 20.9.10 NMAC, and any applicable federal regulations;

(2) a complete renewal application was submitted in a timely fashion in accordance with this section; and

(3) the owner or operator adequately submits any requested additional information by the deadline specified by the secretary.

[20.9.3.36 NMAC - N, 08/02/07]

20.9.3.37 REGISTRATION EXPIRATION.

A. A commercial hauler registration shall expire five years from the date of issuance of the registration.

B. A commercial hauler registration shall terminate upon any change of owners or operators of the registered commercial hauler, and the new owner or operator shall obtain a new registration prior to operation.

[20.9.3.37 NMAC - N, 08/02/07]

20.9.3.38 CONFIDENTIALITY OF INFORMATION.

A. Permit applicants, owners or operators, or commercial haulers who submit information to the department may claim such information as confidential. Any claim of confidentiality must be asserted at the time of submittal.

B. To claim confidentiality of information in a submittal, the submitter must clearly mark each page in the document on which the submitter claims there is confidential information, and submit to the department a written description of the basis for the claim of confidentiality at the time of submission. The department shall review the claim of confidentiality based on the written submittal and determine whether the information may be maintained as confidential pursuant to the Inspection of Public Records Act, NMSA 1978, Sections 14-2-1, et seq. If the department determines that information in a submittal is confidential, the department may require submission of redacted copies of the submittal for the public record.

C. If no claim of confidentiality is made at the time of submission, any such claims are deemed waived and the department may make the information available to the public without further notice.

D. Information that is determined by the department to be confidential may be disclosed to officers, employees, or

authorized representatives of the United States concerned with implementing RCRA, or when relevant in any proceedings under the Solid Waste Act or this chapter.
[20.9.3.38 NMAC - N, 08/02/07]

20.9.3.39 FEE SCHEDULE.

A. Fees are required from applicants for all permit applications, modifications, and applications for permit renewals. Fees shall be paid by the applicant at the time of application and are non-refundable. Fees for individual facility types shall be cumulative if more than one type is included in the permit application.

B. For a municipal or special waste landfill which receives, based on the projected operational rate:

(1) 20 tons or less of waste per day, annual average, the permit application fee shall be $6,000;

(2) more than 20 tons of waste per day, annual average, the permit application fee shall be $10,000;

(3) special waste, in addition to the facility permit application fee, an additional $1000 per type of special waste, up to $10,000 shall be paid.

C. For a construction and demolition landfill, the permit application fee shall be $5,000.

D. For a processing facility, the permit application fee shall be $5,000.

E. For a transformation facility, the permit application fee shall be $10,000.

F. For a transfer station, the permit application fee shall be $5,000.

G. For a recycling facility or composting facility that accepts solid waste, the permit application fee shall be $2,000.

H. For a commercial hauler registration, the registration fee shall be $100 if the hauler registers two trucks or fewer and hauls no special waste, and shall be $300 if the hauler registers three trucks or more or hauls any special waste.

I. Fees for permit modifications shall be half of the stated permit application fee for that type facility.

J. Fees for permit renewals shall be the same as for new facilities.

K. The fee for resubmittal of an application that has been denied without prejudice shall be half of the stated permit application fee for that type of facility.

L. Fees shall be paid by check or money order, payable to "New Mexico Environment Department."
[20.9.3.39 NMAC - Rp, 20 NMAC 9.1.XI.1108, 08/02/07]

HISTORY OF 20.9.3 NMAC:
Pre-NMAC History: The material in this part was derived from that previously filed with the commission of public records - state records center.
EIB 74-1, Solid Waste Management Regulations, filed 5/3/74.
EIB/SWMR-2, Solid Waste Management Regulations, filed 4/14/89.
EIB/SWMR-3, Solid Waste Management Regulations, filed 12/31/91.
EIB/SWMR-4, Solid Waste Management Regulations, filed 7/18/94.

History of Repealed Material: 20 NMAC 9.1, Solid Waste Management Regulations (filed 10/27/95) repealed 08/02/07.

Other History:
EIB/SWMR-4, Solid Waste Management Regulations (filed 7/18/94) was **renumbered** into first version of the New Mexico Administrative Code as 20 NMAC 9.1, Solid Waste Management Regulations, effective 11/30/95.
That pertinent portion of 20 NMAC 9.1, Subpart II, Solid Waste Management Regulations, Solid Waste Facility Permits, (filed 10/27/95), was **renumbered, reformatted and replaced** by 20.9.3 NMAC, Solid Waste Facility Permits and Registrations, effective 08/02/07.

Subpart 360-5:Composting Facilities
(Statutory authority: Environmental Conservation Law, Sections 1-0101, 3-0301, 8-0113,19-0301, 19-0306, 23-2305, 23-2307, 27-0101, 27-0106, 27-0107, 27-0109, 27-0305, 27-0703, 27-0704, 27-0705, 27-0911, 27-1317, 27-1515, 52-0107, 52-0505, and 70-0107)
[Effective Date March 10, 2003]
[This is page 1 of 1 of this Subpart. A complete list of Subparts in this regulation appears in the Chapter 4 contents page. A list of sections in this subpart appears below.]
Contents:
Sec.
§360-5.1 Applicability
This Subpart regulates the construction and operation of composting and other organic waste processing (OWP) facilities for mixed solid waste, source separated organic waste, biosolids, septage, yard waste and other solid waste.
§360-5.2 Definitions
(a) Definitions.
The following terms have the following meanings when used in this Subpart:
(1) Agronomic rate means the rate of nitrogen addition designed to provide the amount of nitrogen needed by the crop or vegetation grown on the land, and to minimize the amount of nitrogen that passes below the root zone of the crop or vegetation grown on the land to the ground water.
(2) Amendment means an organic material added to waste prior to composting to reduce bulk weight and increase air voids, and to increase the quantity of degradable organics.
(3) Biosolids means sewage sludge that can be beneficially used.
(4) Bulking agent means a material added to waste to increase porosity and facilitate aeration during composting.
(5) Curing area means an area where organic material that has undergone the rapid initial stage of decomposition is further stabilized into a humus-like material.
(6) Dry weight basis means calculated on the basis of having been dried at 105 degrees Celsius until reaching a constant mass (i.e., essentially 100 percent solids content).
(7) Feed crops means crops produced primarily for consumption by animals.
(8) Fiber crops means crops such as flax and cotton.
(9) Food crops means crops consumed by humans including, but not limited to, fruits, vegetables, and tobacco.
(10) Gross contaminants means constituents of the solid waste stream that are not readily decomposed and may be present in a product including, but not limited to, pieces of metal, glass, plastic, rubber, bones, and leather. "Gross contaminants" does not include sand, rocks, wood pieces, and other similar materials.
(11) Mature means the characteristics of a soil conditioning material that render it harmless to the plant grown when used as a topsoil or soil supplement and make it sufficiently stable that it will not generate offensive odors during storage, handling, or ultimate use.
(12) Organic waste processing (OWP) facility means a facility involved in the processing of readily biodegradable organic components in solid waste to produce a mature product for beneficial use as a source of nutrients, organic matter, liming value, or other essential constituent for a soil or plant. The processes include, but are not limited to, composting, heat drying, and chemical stabilization.
(13) Pathogenic organisms means disease-causing organisms including, but not limited to, certain bacteria, viruses, protozoa and viable helminth ova.
(14) pH means the logarithm of the reciprocal of the hydrogen ion concentration measured at 25 degrees Celsius or measured at another temperature and then converted to an equivalent value at 25 degrees Celsius.
(15) Public contact area means land with a high potential for contact by the public including, but not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, golf courses and school yards.
(16) Seed material means a source of microorganisms and/or nutrients added to waste to accelerate or activate the composting process.
(17) Source-separated organic waste (SSOW) means readily degradable organic material that has been separated from non-compostable material at the point of generation including, but not limited to, food waste, soiled or unrecyclable paper, and yard waste in combination with any of the former materials. It does not include biosolids, sludge, or septage.

(18) Vector attraction means the characteristic of certain solid wastes that attracts rodents, flies, mosquitos, or other organisms capable of transporting infectious agents.
(19) Volatile solids means that portion of the total solids that is lost when the material is combusted at 550 degrees Celsius in the presence of excess air.
(20) Untreated solids means the organic materials in waste that have not been treated in either an aerobic or anaerobic treatment process.
(21) Waste derived soil conditioning product means a mature material that meets the criteria of this Subpart that can be beneficially used as a source of nutrients, organic matter, liming value, or other essential constituent for a soil or plant.
(b) General definitions.
In addition to the definitions contained in subdivision (a) of this section, the definitions in section 360-1.2 of this Part also apply.
§360-5.3 Exemptions and Registration
(a) Exemptions.
The following facilities are exempt from the this Part provided the facility is operated in a manner that does not produce dust or odors that unreasonably impact on neighbors of the facility, as determined by the department, and no material accepted at the facility remains on-site unprocessed for more than 36 months.
(1) A composting facility that accepts animal manure and associated bedding material.
(2) A composting facility that accepts no more than 3,000 cubic yards of yard waste per year. This quantity limit does not include brush or other wood materials that are not intended for composting.
(3) A composting facility that accepts a combination of wastes that would be exempt if operating individually for each type of waste, such as a composting facility that accepts no more than 3000 cubic yards of yard waste and accepts animal manure.
(b) Registration.
(1) Eligible facilities. The following solid waste management facilities are eligible for the registration provisions of subdivision 360-1.8(h) of this Part, provided the facility complies with subdivision 360-1.8(h) and paragraph (2) of this subdivision. Any eligible or registered facility which is not operated in compliance with these conditions requires a permit pursuant to this Part and will be subject to applicable enforcement provisions in this Part and the ECL Article 70.
(i) A composting facility that accepts more than 3,000 cubic yards but not more than 10,000 cubic yards of yard waste per year. This quantity limit does not include brush and other wood materials that are not intended for composting.
(ii) A composting facility that accepts no more than 1,000 cubic yards of source-separated organic waste per year.
(iii) A composting facility for food processing waste.
(2) Operational criteria. A registered facility must be constructed and operated in compliance with the following conditions:
(i) material accepted does not remain on-site for more than 36 months;
(ii) the process uses acceptable amendments or bulking agents and follows an acceptable method of composting that minimizes odor generation and results in a mature product;
(iii) the facility is constructed to minimize any ponding on the composting area; and
(iv) the facility is at least 200 feet from the nearest surface water body, potable water well, and residence or place of business, excluding the generating business and any residence or place of business built after the facility began operation. This separation distance requirements may be increased to 500 feet in densely populated or otherwise sensitive areas, as determined by the department.
§360-5.4 General Permit Application Requirements for Organic Waste Processing Facilities
In addition to the requirements set forth in section 360-1.9 of this Part pertaining to engineering report contents, the engineering report required to be submitted as part of an initial application to construct and operate an organic waste processing facility must contain the following information:
(a) A regional map that delineates the location of the proposed facility, the location of the closest population centers, and transportation systems including highways located within the service area of the proposed facility and within one mile of the proposed facility.
(b) A vicinity map that delineates zoning and land use, residences, surface waters, access roads, and other existing and proposed features within the proposed facility and within one-half mile of the proposed facility.
(c) A site plan map (minimum scale of 1:2,400 with 20 feet contour intervals) that shows:

(1) the location of the proposed facility;
(2) the facility drainage characteristics, identifying the direction of both site run-on and run-off, ditches, and swales together with any run-off controls that exist or will be implemented with facility construction;
(3) the location of all processing areas and storage areas;
(4) the location of all residences, public contact areas and buildings, including the identification of any buildings which are owned by the applicant or operator, on-site and within 800 feet of the site;
(5) the location of access roads and roads on-site;
(6) the location of property boundaries;
(7) the location of all potable water wells and surface water bodies on-site and within 500 feet of the site;
(8) the location of all drainage swales on-site and within 100 feet of the site; and
(9) existing and proposed elevation contours and the direction of prevailing winds.
(d) A map depicting the location and classification of any regulated wetlands and the location of any floodplain within 500 feet of the site.
(e) A detailed description of the source, quality, and quantity of all solid waste to be processed, including the source, quality, and expected quantity of any bulking agent, amendment, admixture, or seed material. The description must include the annual input and any seasonal variations in the solid waste type and quantity, and the appropriate quality data, as determined by the department.
(f) Engineering plans and specifications for the facility that include a description of the facility and:
(1) the type, purpose, size, and associated detention times for the handling, processing, and storage equipment or structures and calculations that demonstrate that all equipment and structures have sufficient capacity for the material that will be accepted;
(2) the method of measuring, shredding, mixing, and proportioning input materials;
(3) a description and the capacity of the storage facilities used for amendment, bulking agent, admixture, solid waste, and product;
(4) a description of all pre-processing and post-processing methods and equipment used to identify and remove all nonprocessible materials and a copy of all agreements or educational activities that will be used to outline acceptable materials for the facility;
(5) the separation, processing, storage, and ultimate disposal location for nonprocessible materials;
(6) a process flow diagram of the entire process, including all major equipment and flow streams. The flow streams must indicate the quantity of material on a wet weight, dry weight, and volumetric basis;
(7) an outline of the processing time duration, including the time period from acceptance of waste to completion of composting and curing (or treatment) to the distribution of the product;
(8) if windrows are used, pile dimensions including width, length, and height;
(9) the air emission collection and control equipment, if used;
(10) the method to control surface water run-off and to manage leachate, including the method for treatment or disposal of leachate generated. For uncovered sites, calculations of the leachate that must be handled at the site, based on a rainfall intensity of one-hour duration and a 10-year return period; and
(11) for facilities that will use a low permeability soil to minimize leachate release: a construction quality assurance/construction quality control plan as outlined in section 360-2.8 of this Part. If a geomembrane will be used, the applicable information required in Subpart 360-2 must be submitted.
(g) A description of the operation of the facility, including:
(1) the schedule of operation including the days and hours that the facility will be open;
(2) the daily traffic flow to and from the facility; and
(3) the procedure that will be used for unloading trucks.
(h) A monitoring, sampling, and analysis plan that outlines:
(1) the location, purpose, frequency and method for all monitoring points in the process;
(2) the location, purpose, frequency and method for waste and product sampling; and
(3) the protocol used to obtain representative samples, the preparation and preservation of samples, and the laboratory that will be used for analyses.
(i) A product maturity and distribution plan that includes:
(1) an outline of the method that will be used to determine product maturity, including proposed standards for maturity and the monitoring methods or other means that will be used to measure maturity;

(2) a description of the ultimate use for the finished product, including the quantity of product each user is expected to take, the frequency of distribution, the expected use of the product, and the source of this information (contract, phone survey, etc.);
(3) the method for removing product from the facility;
(4) a description of the proposed use or disposal of product that cannot be used in the expected manner due to poor quality or change in market conditions; and
(5) a copy of the label or other information source for the product.
(j) The name of the owner of the facility and the property.
(k) A list of the facility personnel and their respective responsibilities.
(l) A contingency plan that describes the corrective actions to be taken in the event of equipment breakdowns, delivery of unacceptable waste to the facility, spills, fires, noise and vectors.
(m) An operation and maintenance manual that contains general design information and detailed operational information and instructions. In addition, the manual must list the procedures used for sampling and analyzing the solid waste and product, process monitoring, and record keeping.
(n) An odor management plan that outlines how the production and migration of odorous compounds will be minimized, including design and operational practices. The plan must also include specific steps that will be taken during the operation of the facility to address complaints and actions that will be taken if unacceptable odors occur in areas beyond the property line of the facility.
(o) A closure plan for the facility, as outlined in subdivision 360-1.14(w).
§ 360-5.5 Organic Waste Processing Facilities For Biosolids, Mixed Solid Waste, Septage And Other Sludges
(a) Additional permit application requirements.
This section describes the permit application requirements for organic waste processing facilities for mixed solid waste, biosolids, septage, and other sludges such as paper mill sludge. This section also covers OWP facilities for source-separated organic waste other than composting facilities, such as thermophilic anaerobic digestion processes. In addition to the requirements set forth in section 360-5.4 of this Part pertaining to engineering report contents, the engineering report that must be submitted as part of an initial application to construct and operate an OWP facility for biosolids, mixed solid waste, septage and other sludges must contain the following information:
(1) If biosolids, septage, or other sludges are to be processed, the following information must be included:
(i) A description of each proposed source of waste including the name of the generator, the annual quantity of waste produced, the amount of waste to be processed, and any seasonal variations in the quantity or quality during the year. Also, a description of the federal or state pretreatment program, if required.
(ii) Except for mixed solid waste, a description of the quality of the waste, including analytical results, as outlined below.
(a) The parameters for analysis are found in Table 1, found in Section 360-5.10.
(b) The minimum number of analyses for each waste source that must be submitted with the application is dependent upon the amount of waste that will be processed annually, and is outlined in Table 3 in Section 360-5.10.
(c) For each analysis, the sampling date, location, and protocol used to obtain representative samples must be indicated.
(d) A minimum of six months of waste production must be represented by the analytical results submitted. With the exception of pH and total solids, all results must be reported on a dry-weight basis.
(e) Analyses for other pollutants may be required, on a case specific basis, based on the characteristics of the waste and information from the pretreatment program and other sources.
(f) Each analysis must be performed by a laboratory certified by the New York State Department of Health for that type of analysis, using methods acceptable to the Department, as outlined in Table 12 in Section 360-5.10, unless use of an alternative laboratory is authorized by the department. Copies of the original laboratory results must be included with the permit application.
(g) The analysis requirement may be satisfied in part or in whole by recent samples analyzed for and reported to the department, if approved by the department.
(h) Analyses performed more than one year prior to the date the permit application is submitted are not acceptable.
(i) All samples must be representative of the waste to be processed. Guidance on obtaining representative samples can be found in "POTW Sludge Sampling and Analysis Guidance Document," USEPA, August 1989.

(j) Wastewater and partially treated biosolids or septage that are generated at one facility and treated at another wastewater treatment facility prior to beneficial use are not considered waste sources subject to the criteria in this subparagraph. The resultant biosolids or sludge generated for beneficial use are subject to this subparagraph.
(k) A table summarizing the analytical results must be provided, including the mean, median, and range of results found.
(2) Analyses of the bulking agent, amendment, or admixture for the parameters found in paragraph 360-5.5(a)(1) of this Part if deemed necessary by the department based on the type of material used.
(3) If mixed solid waste is to be processed, a description of the recyclables separation program and household hazardous waste (HHW) collection program for the proposed service area including:
(i) the methods used for removing recyclables prior to treatment, both at the facility and at the site of generation;
(ii) the processing methods used to handle recyclables and HHW;
(iii) the method and length of storage for both recyclables and HHW;
(iv) the markets for recyclables;
(v) the method used to remove HHW from the solid waste stream, both at the facility and at the site of generation; and
(vi) the ultimate disposal location for HHW collected.
(4) For mixed solid waste and solid waste that contains human waste, a detailed description of the proposed processes to reduce pathogenic organism content and to reduce vector attraction including:
(i) The methods that will be used for pathogen reduction and vector attraction reduction. Acceptable methods are listed in subdivision 360-5.5(b) of this Subpart. The use of alternative 4 or 5 must also include a detailed description of how the process will produce a product that is sufficiently stable that it can be used without being a public nuisance.
(ii) The monitoring and data gathering procedures that will be used to demonstrate compliance with the pathogen and vector attraction reduction requirements, including type, location, and frequency.
(iii) For existing systems, recent operating data and analytical data to demonstrate that the system can satisfy the pathogen and vector attraction reduction requirements.
(b) Pathogen and vector attraction reduction.
The following requirements apply to mixed solid waste and solid waste that contains any amount of human waste.
(1) One of the following alternatives (designated as Class A pathogen reduction) must be used to reduce pathogen content before the material leaves the facility. Alternative 2 is not applicable for composting. Alternative 4 or 5 can only be used if the process cannot produce operational data that could be used to meet another PR alternative.
(i) Class A - Alternative 1. Either the density of fecal coliform in the product is less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the product is less than three Most Probable Number per four grams of total solids (dry weight basis) at the time of product use or disposal and the waste must be treated by one of the following processes:
(a) Composting. Using the windrow composting method, the solid waste is maintained under aerobic conditions during the compost process. A minimum of five turnings is required during a period of 15 consecutive days when the temperature of the mixture is not less than 55 degrees Celsius.
Using the aerated static pile composting method or the within-vessel composting method, the temperature of the solid waste is maintained at 55 degrees Celsius or higher for at least three consecutive days.
(b) Heat drying. Waste is dried by direct or indirect contact with hot gases to reduce the moisture content of the waste to 10 percent or lower. One of the following must be achieved:
(1) either the temperature of the waste particles must exceed 80 degrees Celsius or
(2) the wet bulb temperature of the gas in contact with the waste as it leaves the dryer must exceed 80 degrees Celsius. (c) Heat treatment. Liquid waste is heated to a temperature of 180 degrees Celsius or higher for at least 30 minutes.
(d) Thermophilic aerobic digestion. Liquid waste is agitated with air or oxygen to maintain aerobic conditions and the mean cell residence time of the waste is at least 10 days at 55 degrees Celsius or greater.
(e) Beta ray irradiation. Waste is irradiated with beta rays from an accelerator at dosages of at least 1.0 megarad at room temperature (approximately 20 degrees Celsius).
(f) Gamma ray irradiation. Waste is irradiated with gamma rays from certain isotopes, such as Cobalt 60 and Cesium 137, at dosages of at least 1.0 megarad at room temperature (approximately 20 degrees Celsius).
(g) Pasteurization. The temperature of the waste is maintained at 70 degrees Celsius or higher for 30 minutes or longer.

(h) Other methods. Other methods or operating conditions may be approved by the department if the department determines that pathogens are reduced to an extent equivalent to the reduction achieved by the above methods.
(ii) Class A - Alternative 2. Treatment by thermophilic aerobic or anaerobic digestion. Either the density of fecal coliform in the product must be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the product must be less than three Most Probable Number per four grams of total solids(dry weight basis)at the time of product use or disposal, and the temperature of the solid waste must be maintained at a specific value for a period of time, as follows:
(a) When the percent solids of the waste is seven percent or higher, the temperature of the waste must be 50 degrees Celsius or higher, the time period must be 20 minutes or longer, and the temperature and time period must be determined using the following equation, except when small particles of waste are heated by either warmed gases or an immiscible liquid.
D = 131,700,000
10 0.1400 t
Where,
D = time in days. t = temperature in degrees Celsius.
(b) When the percent solids of the solid waste is seven percent or higher and small particles of waste are heated by either warmed gases or an immiscible liquid, the temperature and time period must be determined using the equation in clause (a) of this subparagraph. The temperature of the waste must be 50 degrees Celsius or greater and the time period must be 15 seconds or longer.
(c) When the percent solids of the waste is less than seven percent and the time period is at least 15 seconds, but less than 30 minutes, the temperature and time period must be determined using the equation in clause (a) of this subparagraph.
(d) When the percent solids of the waste is less than seven percent, the temperature of the waste is 50 degrees Celsius or higher, and the time period is 30 minutes or longer, the temperature and time period must be determined using the following equation:
D = 50,070,000
10 0.1400 t
Where,
D = time in days. t = temperature in degrees Celsius.
(iii) Class A - Alternative 3. Either the density of fecal coliform in the product must be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the product must be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time of product use or disposal and the following conditions must be satisfied:
(a) The pH of the waste must be raised to above 12 and remain above 12 for at least 72 hours.
(b) The temperature of the waste must remain above 52 degrees Celsius for 12 hours or longer during the period that the pH of the waste is above 12.
(c) At the end of the 72-hour period during which the pH of the waste is above 12, the waste must be air dried to achieve a percent solids in the waste greater than 50 percent.
(iv) Class A - Alternative 4. Either the density of fecal coliform in the product must be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the product must be less than three Most Probable Number per four grams of total solids (dry weight basis) at the time of product use or disposal, and the following conditions must be satisfied:
(a) The density of enteric viruses in the product must be less than one Plaque-forming Unit per four grams of total solids (dry weight basis).
(b) The density of viable helminth ova in the product must be less than one per four grams of total solids (dry weight basis).
(v) Class A - Alternative 5. Either the density of fecal coliform in the waste must be less than 1000 Most Probable Number per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the product must be less than three Most Probable Number per four grams of total solids (dry weight basis)at the time of product use or disposal, and the following conditions must be satisfied:
(a) The waste must be analyzed prior to pathogen treatment to determine whether the waste contains enteric viruses.

(b) When the density of enteric viruses in the waste prior to pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis), the waste is Class A with respect to enteric viruses until the next monitoring episode for the waste.
(c) If the density of enteric viruses in the waste prior to pathogen treatment is equal to or greater than one Plaque-forming Unit per four grams of total solids (dry weight basis), the waste is not considered Class A with respect to enteric viruses until the density of enteric viruses in the waste, after pathogen treatment is less than one Plaque-forming Unit per four grams of total solids (dry weight basis) and the values or ranges of values for the operating parameters of the pathogen treatment process (that produces the waste that meets the enteric virus density requirement) are documented.
(d) After the enteric virus reduction in clause (c) of this subparagraph is demonstrated for the pathogen treatment process, the waste continues to be Class A with respect to enteric viruses when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in clause (c) of this subparagraph.
(e) The waste must be analyzed prior to pathogen treatment to determine whether the waste contains viable helminth ova.
(f) When the density of viable helminth ova in the waste prior to pathogen treatment is less than one per four grams of total solids (dry weight basis), the waste is Class A with respect to viable helminth ova until the next monitoring episode for the waste.
(g) If the density of viable helminth ova in the waste prior to pathogen treatment is equal to or greater than one per four grams of total solids (dry weight basis), the waste is not considered Class A with respect to viable helminth ova until the density of viable helminth ova in the waste, after pathogen treatment, is less than one per four grams of total solids (dry weight basis), and the values or ranges of values for the operating parameters for the pathogen treatment process (that produces the waste that meets the viable helminth ova density requirement) are documented.
(h) After the viable helminth ova reduction in clause (g) of this subparagraph is demonstrated for the pathogen treatment process, the waste continues to be Class A with respect to viable helminth ova when the values for the pathogen treatment process operating parameters are consistent with the values or ranges of values documented in clause (g) of this subparagraph.
(2) One of the following vector attraction reduction methods must be achieved before the material leaves the facility. Vector attraction reduction methods, except the methods found in subparagraphs 360-5.5(b)(2)(vi) - (viii), must be met either after meeting or at the same time the pathogen reduction requirements are met.
(i) The mass of volatile solids in the waste must be reduced by a minimum of 38 percent.
(ii) If the volatile solids reduction requirement cannot be met for an anaerobically digested waste, vector attraction reduction can be demonstrated by anaerobically digesting a portion of the previously digested waste in a laboratory bench-scale unit for 40 additional days at a temperature between 30 and 37 degrees Celsius. Vector attraction reduction is achieved if the bench-scale digestion produces less than a 17 percent reduction in volatile solids content.
(iii) If the volatile solids reduction requirement cannot be met for an aerobically digested waste, vector attraction reduction can be demonstrated by aerobically digesting a portion of the previously digested waste that has a percent solids of two percent or less in a laboratory bench-scale unit for an additional 30 days at 20 degrees Celsius. Vector attraction reduction is achieved if the bench-scale digestion produces less than a 15 percent reduction in volatile solids content.
(iv) The specific oxygen uptake rate (SOUR) for waste treated in an aerobic process must be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.
(v) Waste must be treated by an aerobic process for a minimum of 14 days. Throughout that treatment time, the temperature of the waste must remain higher than 40 degrees Celsius and the average temperature of the waste must be higher than 45 degrees Celsius.
(vi) The pH of the waste must be raised to 12 standard units or higher by alkali addition and, without the addition of more alkali, must remain at 12 or higher for two hours, and then must remain at 11.5 or higher for an additional 22 hours.
(vii) For waste that does not contain untreated solids generated in a primary wastewater treatment process, the percent solids of the waste must be equal to or greater than 75 percent, prior to mixing with other materials, until use.

(viii) For waste that contains untreated solids generated in a primary wastewater treatment process, the percent solids of the waste must be equal to or greater than 90 percent, prior to mixing with other materials, until use.
(c) Pollutant limits and product use.
(1) A product that does not meet the criteria in this section must be disposed in accordance with this Part.
(2) For facilities that accept biosolids, septage, or other sludges, each waste source must not exceed the pollutant concentrations found in Table 4 of Section 360-5.10, unless the waste source is a minor (less than 10% of the total dry weight of sludges accepted) component of the input to the facility and a program is developed to identify and reduce the pollutant(s) that exceed the limits found in Table 4 of Section 360-5.10 for that waste source. This requirement does not apply if the product is used outside New York State.
(i) If a waste input, other then a minor source, contains metals at concentrations greater than those set forth in Table 4, the waste can not be accepted at the facility until the generator has implemented a pollutant identification and abatement program and compliance with the requirements of this paragraph has been demonstrated for a period of at least six continuous months. At least six analyses for total solids and the parameter of concern must be provided to demonstrate compliance. This requirement does not apply if the product is used outside New York State.
(ii) Wastewater and partially treated biosolids that are generated at one wastewater treatment facility and are further treated at another wastewater treatment facility prior to beneficial use are not considered waste sources subject to the criteria in this paragraph. The resultant biosolids or sludge generated for beneficial use are subject to this paragraph.
(3) The product must not contain pollutant levels greater than the values found in Table 7 of Section 360-5.10.
(i) The addition of sawdust, soil, or other materials to the process or product for dilution purposes is not allowed.
(4) Any material added to the process must not contain pollutants in concentrations that exceed the levels found in Table 4 of Section 5.10. If kiln dust is used, the kiln dust must not emanate from a kiln that accepts hazardous waste.
(5) The product must not contain more than two percent total gross contaminants by weight (dry weight basis).
(6) The particle size of the product must not exceed 10 millimeters (0.39 inch) particle size, except for wood particles derived from the use of wood chips as a bulking agent or amendment in composting.
(7) A compost product must be produced from a composting process with a minimum detention time (including active composting and curing) of 50 days, unless an alternate means for achieving sufficient maturity is approved by the department.
(8) The product must be mature and must be used in a legitimate manner as a soil amendment. The department may require process operating conditions including, but not limited to, longer aeration time and/or product use restrictions.
(9) An information label must be affixed to the product bag or, for bulk distribution, an information sheet or brochure must be provided to the user. The label or information sheet must contain, at a minimum, the following information:
(i) the name and address of the generator of the product;
(ii) the type of waste the product was derived from;
(iii) the average metal content of the product and the allowable metal levels (or a mailing address, e-mail address, or phone number where this information can be obtained); and
(iv) recommended safe uses, restrictions on use, application rates and storage practices intended to minimize the potential for nuisance conditions and negative surface and groundwater impacts emanating from the storage or use of the product.
(10) The product may be distributed for use on all crops except food crops. This restriction no longer applies 38 months or later after the pathogen reduction criteria have been met. If the product is stored for 38 months or longer, it can be distributed for use on food crops. If the product has been applied to the soil, food crops could be grown on the soil 38 months or more after product application.
(11) If the product will be marketed as a fertilizer or agricultural liming material in New York State, a license must be obtained from the New York State Department of Agriculture and Markets, if required.
(d) Design criteria and operational requirements. A permittee may not operate a facility under this Subpart until a certification that construction was completed in accordance with the approved engineering report, plans and specifications has been submitted to and approved in writing by the department. The certification must be signed by an individual licensed to practice engineering in the State of New York. In addition to the operational requirements identified in section 360-1.14 of this Part, the following requirements apply:

(1) On-site storage of a product is limited to 24 months, unless approved by the Department on a case-specific basis. For heat drying facilities, the maximum storage time may be restricted to a shorter period due to combustion concerns, as determined by the department.
(2) Surface water drainage must be diverted away from the operating area of the facility.
(3) The waste storage area, processing area, leachate storage and product storage area at the facility must be located on surfaces that minimize leachate release into the groundwater under the site and the surrounding land surface, such as asphalt (except for leachate storage), concrete, or drying beds that have under drains for leachate collection. The following criteria apply:
(i) If low permeability soils are used, the liner must be a minimum of two feet of compacted soil having a maximum remolded coefficient of permeability of 1 x 10-7 centimeters per second. The soil material particles must be able to pass through a one inch screen. The applicable criteria in subdivision 360-2.13(j) of this Part must be complied with;
(ii) If a geomembrane is used, the liner system must be designed and built in accordance with the applicable criteria in section 360-2.13 of this Part;
(iii) If a surface impoundment is used for leachate storage, a minimum of two feet of freeboard must be maintained. In addition, the bottom of the liner system must be a minimum of five feet above both seasonal high groundwater elevation; and bedrock.
(iv) For composting facilities, product storage beyond the 50 day detention time requirement does not have to occur on a low permeability surface. For products other than compost, the Department shall determine when the product no longer must be stored on a pad.
(4) All leachate must be collected and disposed in a manner approved by the department. All leachate storage facilities must be completely emptied, cleaned, and inspected every 12 months.
(5) The facility must be operated to control the generation and migration of odors and dust to a level that is to be expected from a well operated facility, as determined by the department.
(6) The facility must not be operated or constructed on flood plains unless provisions have been made to prevent the encroachment of flood waters upon the facility, and such provisions are approved by the department.
(7) For composting facilities, the operation of the facility must follow acceptable methods of composting which result in the aerobic biochemical decomposition of the organic material received.
(8) The minimum horizontal separation distance as measured from the facility to the nearest residence, place of business or public contact area must be 500 feet, except as provided below:
(i) this requirement does not apply to biosolids facilities located at existing sewage treatment plants;
(ii) the separation distance requirement from a public contact area may be reduced for totally enclosed facilities, if approved by the department; and
(iii) the landowner's or operator's residence, plant nurseries and turf farms are excluded from the separation requirement for a residence for the purposes of this paragraph.
(9) For uncovered processing facilities, the leachate collection and treatment system must be adequate to manage the quantity of leachate generated at the site based on a rainfall intensity of one-hour duration and a 10-year return period.
(10) Noncompostable or nonprocessible solid waste and unacceptable product must be disposed at least weekly in a manner approved by the department.
(11) For facilities accepting mixed solid waste:
(i) a recyclables separation program and a household hazardous waste collection program must be in place and approved by the department before operation of the facility;
(ii) recyclables must be removed from the waste stream prior to active composting or treatment; and
(iii) all waste storage and processing areas must be enclosed.
(12) All waste unloading, waste storage, and processing areas must be enclosed for facilities that accept an average of 100 wet tons of waste per day or greater, unless other measures are taken to minimize nuisance conditions and are approved by the department.
(13) The facility is prohibited from accepting wastes that do not positively contribute to the treatment process or the quality of the product, as determined by the department.
(e) Monitoring, record keeping, and reporting.
(1) Each biosolids source or septage must be analyzed annually in accordance with the following.
(i) The parameters for analysis are found in Table 1 of Section 360-5.10.

(ii) The minimum number of analyses required depends on the quantity of waste, as outlined in Table 6 of Section 360-5.10.
(iii) With the exception of pH and total solids, all results must be reported on a dry-weight basis. The analyses must comply with the criteria found in clauses 360-5.5(a)(1)(ii)(c),(e) - (g) and (i) of this Subpart. After the waste has been monitored for two years at the frequency outlined in this paragraph, the department may reduce the annual number of analyses for Group A, B, and C parameters required if the waste quality consistently meets the quality standards.
(iv) Wastewater and partially treated biosolids or septage that are generated at one facility and treated at another wastewater treatment facility prior to beneficial use are not considered waste sources subject to the criteria in this subparagraph. The resultant biosolids or sludge generated for beneficial use are subject to this subparagraph.
(2) For other sludges and solid wastes, annual analyses of the input waste may be required, as determined by the department, based on the characteristics of the waste. The extent and frequency of sampling will be determined by the department on a case specific basis.
(3) Annual product quality monitoring is required in accordance with the following.
(i) The parameters for analysis are found in Table 8 of Section 360-5.10.
(ii) The minimum number of analyses required annually is found in Table 9 of Section 5.10, based on the annual production divided by 365.
(iii) With the exception of pH and total solids, all results must be reported on a dry weight basis. The analyses must comply with the criteria found in clauses 360-5.5(a)(1)(ii)(c),(e) - (g) and (i) of this Subpart.
(iv) For mixed solid waste facilities the department may require that the sampling frequency be increased during the first year of operation.
(4) Analysis of the product for any or all of the pollutants identified in the Water Quality Analysis Tables in section 360-2.11 of this Part may be required upon a determination by the department, based on the characteristics and source of the waste.
(5) Sufficient monitoring data must be obtained to demonstrate compliance with the pathogen and vector attraction reduction requirements in subdivision 360-5.5(b) of this Subpart. The frequency and type of monitoring necessary will depend on the methods employed to achieve pathogen and vector attraction reduction, and must be approved by the department. For composting, temperature monitoring must occur, at a minimum, on a daily basis. The number of organism analyses required is equal to the frequency outlined in paragraph (3) of this subdivision unless the scheduling of product distribution warrants a greater or lower frequency, as determined by the department.
(6) The department may require, on a case specific basis if it appears that product maturity is critical for the end use, testing of the product for maturity prior to distribution, including, but not limited to, potential for reheating, organic matter reduction, plant growth impact, or oxygen consumption. The degree of maturity needed will depend on the end use of the product.
(7) Daily operational records must be maintained for the facility. These must include, in addition to the information required under subdivision 360-1.14(i) of this Part, all monitoring data, quantity and character of material processed, quantity of product removed, and intended product use. (8) The following information must be retained in accordance with 360-1.14(i):
(i) A copy of the complete and final permit application.
(ii) Records of pollutant concentration including:
(a) date of sample collection, sampling location, sample type, and name of sampler;
(b) name of laboratory, analytical methods used, and quality assurance/quality control procedures; and
(c) analytical results.
p(iii) If required, records of pathogen and vector attraction reduction method used, including a description of how compliance was achieved, certification that the requirements were achieved, and applicable monitoring and analytical data.
(9) The permittee must submit an annual report to the department's central office and the appropriate regional office no later than March 1 of each year covering the previous calendar year, on forms prescribed by or acceptable to the department. The report must include:
(i) all information and analyses required by this section;
(ii) the type and quantity of the waste, and other materials such as bulking agents, being processed, including the source of the material;

(iii) process operational information including monitoring data and significant facility operational problems and any actions taken to correct such problems;
(iv) for facilities that accept biosolids, the following certification statement, which must be signed by an authorized representative of the facility and indicate the name and title of the individual signing.
"I certify, under penalty of law, that the information that will be used to determine compliance with the requirements in Subpart 360-5 of 6 NYCRR Part 360 has been prepared under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate this information. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment."
(v) the quantity, by weight and volume, of product generated at the facility and the quantity of product and other solid waste, including unacceptable product, removed from the facility; and
(vi) a description of the end-product distribution and disposal methods.
§360-5.6 Source-separated Organic Waste Composting Facilities
(a) Additional permit application requirements.
This section describes the permit application requirements for composting facilities for source-separated organic waste. The following information, in addition to that set forth in section 360-5.4 of this Part, must be included in the contents of an engineering report submitted as part of an initial permit application to construct and operate:
(1) A detailed description of the specific source, quality, and quantity of all SSOW, and sources, quality, and expected quantity of any bulking agent or amendment. The description must include the annual solid waste input, and any seasonal variations in the solid waste type and quantity. For residential SSOW, the description must include the service area population. For commercial SSOW, the description must include a list of all types of generating facilities and the type and quantity of wastes that will be collected from each type of generator.
(2) A detailed description of the source separation program at the point of generation, including how non-compostables are kept out of the SSOW stream.
(i) For residential SSOW, this must include a copy of all educational literature or other information provided to residents, and a description of the container that will be used.
(ii) For commercial SSOW, this must include a copy of any agreements or information concerning what can be accepted from the generator.
(3) A detailed description of the proposed processes to reduce pathogenic organism content and to reduce vector attraction including:
(i) the methods that will be used for pathogen reduction and vector attraction reduction; and
(ii) the monitoring and data gathering that will be used to demonstrate compliance including type, location, and frequency.
(4) For facilities that will operate on a soil base without a low permeability pad, the permit application must include a description and an identification of the surface soil characteristics at the facility and the depths to seasonal high groundwater and bedrock, including appropriate documentation.
(b) Pathogen and vector attraction reduction.
For pathogen reduction, the criteria outlined in paragraphs (1) and (2) must be achieved. For vector attraction reduction, the criteria in paragraph (3) of this subdivision must be achieved.
(1) One of the following microorganism concentrations must be achieved:
(i) the density of fecal coliform in the product is less than 1000 Most Probable Number per gram of total solids (dry weight basis); or
(ii) the density of Salmonella sp. bacteria in the product is less than three Most Probable Number per four grams of total solids (dry weight basis).
(2) The waste must be treated by one of the following processes to further reduce pathogens:
(i) Using the windrow composting method, the solid waste must be maintained under aerobic conditions during the compost process. A minimum of five turnings is required during a period of 15 consecutive days, and the temperature of the mixture must be maintained at 55 degrees Celsius or greater during this period.
(ii) Using the aerated static pile composting method or the within-vessel composting method, the temperature of the solid waste must be maintained at 55 degrees Celsius or higher for at least three consecutive days.
(iii) Other methods or operating conditions, if pathogens are reduced to an extent equivalent to the reduction achieved by the methods in subparagraphs (i) and (ii), if approved by the department.
(3) One of the following vector attraction reduction methods must be achieved:
(i) The mass of volatile solids in the waste must be reduced by a minimum of 38 percent.

(ii) The specific oxygen uptake rate (SOUR) for waste treated in an aerobic process must be equal to or less than 1.5 milligrams of oxygen per hour per gram of total solids (dry weight basis) at a temperature of 20 degrees Celsius.
(iii) Waste must be treated by an aerobic process for a minimum of 14 consecutive days. During that time, the temperature of the waste is maintained above 40 degrees Celsius and the average temperature of the waste is maintained above 45 degrees Celsius.
(c) Pollutant limits and product use.
(1) A product that does not meet the criteria in this section must be disposed or otherwise managed in a manner pursuant to this Part.
(2) The product must not contain pollutant levels greater than those found in Table 7 of Section 360-5.10.
(3) The product must not contain more than two percent total gross contaminants by weight (dry weight basis).
(4) The particle size of the product must not exceed 10 millimeters (0.39 inch) particle size, except for wood particles derived from the use of wood chips as a bulking agent or amendment.
(5) The product must be mature and must be used in a legitimate manner as a soil amendment. The product must be produced from a composting process with a minimum detention time (including active composting and curing) of 50 days, unless an alternate means for achieving sufficient maturity is approved by the department.
(6) An information label must be affixed to the product bag or, for bulk, an information sheet or brochure must be provided to the user. The label or information sheet must contain, at a minimum, the following information:
(i) the name and address of the generator of the product;
(ii) the type of waste the product was derived from; and
(iii) recommended safe uses, application rates and storage practices.
(7) The product may be distributed for use for food crops, feed crops, and fiber crops.
(d) Design criteria and operational requirements. If construction is involved, a permittee may not operate a facility under this Subpart until certification that construction is in accordance with the approved engineering report, plans and specifications has been submitted to, and approved in writing by, the department. The certification must be signed by an individual licensed to practice engineering in the State of New York. In addition to the operational requirements identified in section 360-1.14 of this Part, the following requirements apply:
(1) Storage of product on-site must be limited to 24 months.
(2) Surface water drainage must be diverted away from the operating area.
(3) If the facility accepts, on average, 5 wet tons of SSOW per day or more, the waste storage area, processing area, leachate storage and product storage area at the facility must be located on surfaces, such as asphalt (except leachate storage) or concrete, to minimize leachate release into the groundwater under the site and the surrounding land surface. The following requirements apply to the use of soils or geomembranes in the processing area or the use of surface impoundments for leachate storage.
(i) If soils are used, the liner must be a minimum of two feet of compacted soil having a maximum remolded coefficient of permeability of 1 x 10-7 centimeters per second. The soil material particles must be able to pass through a one inch screen. The applicable criteria in subdivision 360-2.13(j) must be followed.
(ii) If a geomembrane is used, the liner system must be designed and built in accordance with the applicable criteria in Subpart 360-2 of this Part.
(iii) If a surface impoundment is used for leachate storage, a minimum of two feet of freeboard must be maintained. In addition, the bottom of the liner system must be a minimum of five feet above both the seasonal high groundwater elevation and bedrock.
(4) If the facility accepts, on average, less than 5 wet tons of SSOW per day, the following requirements apply:
(i) if the facility is located on soils with a coefficient of permeability greater than six inches per hour the installation of groundwater monitoring wells or other monitoring devices and groundwater monitoring may be required, as determined by the department.
(ii) The facility must be constructed to minimize any ponding;
(iii) Composting must not occur in areas where the seasonal high groundwater elevation is less than 24 inches from the ground surface or where bedrock lies less than 24 inches below the ground surface.
(iv) The bottom of any surface impoundment used for leachate must be a minimum of five feet above both the seasonal high groundwater table and the top of bedrock.
(5) All leachate must be managed in a manner approved by the department. All leachate storage facilities must be completely emptied, cleaned, and inspected every 12 months.

(6) The facility must be operated to control vectors and odors to a level that is to be expected from a well operated facility, as determined by the department.
(7) The facility must not be operated or constructed on flood plains unless provisions have been made to prevent the encroachment of flood waters upon the facility and the department approves such provisions.
(8) The operation of the facility must follow acceptable methods of composting which result in the aerobic biochemical decomposition of the organic material received.
(9) The minimum horizontal separation distance as measured from the facility to the nearest residence, place of business or public contact area (except plant nurseries and turf farms) must be 500 feet and the following criteria apply:
(i) A facility without a pad and leachate collection system must maintain a minimum separation of 200 feet to a potable water well or surface water body and 25 feet to a drainage swale.
(ii) The separation distance requirement from a public contact area may be reduced for totally enclosed facilities upon a determination by the department.
(iii) The landowner's or operator's residence is excluded from the separation requirement for a residence for the purposes of this paragraph.
(10) For uncovered processing facilities, the facility must be able to manage the quantity of leachate generated at the site based on a rainfall intensity of one-hour duration and a 10-year return period.
(11) Noncompostable solid waste must be disposed at least weekly in a manner approved by the department.
(12) The composting facility can only accept SSOW from a generator that has an active collection program designed to collect organic waste separate from other waste materials and to remove inorganic and non-compostable materials from the SSOW generated. The composting facility must also have provisions for inspection and removal of noncompostables received.
(13) All SSOW unloading, storage and processing areas must be enclosed for facilities that have an average capacity of 100 wet tons per day or greater, unless other measures are taken to minimize nuisance conditions, as determined by the department.
(14) The facility is prohibited from accepting wastes that do not positively contribute to the treatment process or the quality of the product, as determined by the department. Prohibited waste includes, but is not limited to, construction and demolition debris (other than land clearing debris) and waste combustion ash (other than wood ash that results from the burning of uncontaminated wood).
(e) Monitoring, record keeping and reporting.
(1) Annual product quality monitoring is required in accordance with the following.
(i) The parameters for analysis are found in Table 8 of Section 5.10.
(ii) The minimum number of analyses required annually is outlined in Table 10 of Section 360-5.10,based on the annual production divided by 365.
(iii) Each sample must be a composite of at least 5 grab samples. With the exception of pH and total solids, all results must be reported on a dry weight basis. The analyses must comply with the criteria found in clauses 360-5.5(a)(1)(ii)(c),(e) - (g) and (i) of this Subpart.
(iv) After the product has been monitored for two years at the frequency outlined in this paragraph, the department may reduce the annual number of analyses required if the product quality consistently meets the product quality standards in paragraph 360-5.6(c)(2) of this Subpart.
(2) Sufficient monitoring data must be obtained to demonstrate compliance with the pathogen and vector attraction reduction requirements. The frequency and type of monitoring necessary, based on the methods employed to achieve pathogen and vector attraction reduction, must be approved by the department. At a minimum, temperature monitoring must occur on a daily basis in the coldest part of the waste mass.
(3) The department may require, on a case specific basis, testing of the product for maturity prior to distribution. This may include, but is not limited to, potential for reheating, organic matter reduction, plant growth impact, or oxygen consumption.
(4) Daily operational records must be maintained for the facility. These must include, in addition to the information required under subdivision 360-1.14(i) of this Part, all monitoring data, quantity and character of material processed, quantity of product removed, and product use.
(5) A copy of the complete and final permit application and all monitoring data obtained to demonstrate compliance with this Subpart must be retained in accordance with subdivision 360-1.14(i).

(6) The permittee must submit an annual report to the department's central office and the appropriate regional office no later than March 1 of each year covering the previous calendar year, on forms prescribed by or acceptable to the department. The report must include:
(i) all information and analyses required by this Subpart;
(ii) the type and quantity of the waste and other materials, such as bulking agents being processed, including the source of the material;
(iii) facility operational information including monitoring data and significant facility operational problems and actions taken to correct the problems;
(iv) the quantity, by weight and volume, of product generated and the quantity of product and other solid waste including unacceptable product removed from the facility; and
(v) a description of the end-product distribution and disposal methods.
§360-5.7 Yard Waste Composting Facilities
(a) Additional permit application requirements.
In addition to the requirements set forth in section 360-5.4 of this Part pertaining to engineering report contents, the engineering report submitted as part of an application for an initial permit to construct and operate a composting facility for yard waste must include the following information:
(1) A description and an identification of the surface soil characteristics for the proposed site area and depths to the seasonal high groundwater and bedrock, including appropriate documentation.
(2) A description of the source and composition of the yard wastes involved, including the anticipated quantity of each type of material and how each will be handled at the site.
(3) A description of all composting activities at the site including those facilities that may qualify for exemption or registration under section 360-5.3 of this Part.
(b) Design criteria and operational requirements. If construction is involved, a permittee may not operate a facility under this Subpart until certification that construction in accordance with the approved engineering report, plans and specifications has been submitted to and approved in writing by the department. The certification must be signed by an individual licensed to practice engineering in the State of New York. In addition to the operational requirements identified in section 360-1.14 of this Part, the following requirements apply:
(1) Only yard waste and wastes that qualify for exemption or registration under section 360-5.3 of this Part may be accepted at this type of composting facility.
(2) Compost areas located on soils with a coefficient of permeability greater than six inches per hour may require installation of groundwater monitoring wells or other monitoring devices and groundwater monitoring, as determined by the department.
(3) Drainage must be controlled to prevent leachate run-off from the site. For uncovered facilities, the design of the facility must be adequate to handle the quantity of leachate generated at the site based on a rainfall intensity of one-hour duration and a 10-year return period. In addition, surface water drainage must be diverted away from the compost site.
(4) The operation of the facility must follow acceptable methods of composting which result in the aerobic biochemical degradation of the organic material received. the product distributed must be mature.
(5) The facility must be constructed to minimize any ponding.
(6) The windrow construction and turning frequency must be sufficient to maintain aerobic conditions and to produce a compost product in the time frame outlined in the approved permit application.
(7) The minimum horizontal separation distance as measured from the facility to the nearest residence, place of business or public contact area (except turf farms and plant nurseries) must be 200 feet or greater if deemed necessary by the department based on the characteristics of the neighboring areas. The following criteria apply:
(i) A facility without a pad and leachate collection system must maintain a minimum separation of 200 feet to a potable water well or surface water body and 25 feet to a drainage swale.
(ii) The separation distance requirement from a public contact area may be reduced for totally enclosed facilities if approved by the department; and
(iii) The landowner's or operator's residence is excluded from the separation requirement for a residence.
(8) The facility must not be operated or constructed on a floodplain unless provisions have been made to prevent the encroachment of flood waters upon the facility.
(9) Composting must not occur in areas where the seasonal high groundwater elevation is less than 24 inches from the ground surface or where bedrock lies less than 24 inches below the ground surface, unless composting occurs on a low permeability pad.

(10) The bottom of any surface impoundment used for leachate with a capacity of 10,000 gallons or more must be a minimum of five feet above both the seasonal high groundwater table and the top of bedrock. Impoundments with a capacity less than 10,000 gallons must be a minimum of two feet above both seasonal high groundwater and the top of bedrock.
(11) The composting facility must be operated in a manner to control the generation and migration of odors to a level that is to be expected from a well operated facility, as determined by the department.
(12) Yard waste compost may be distributed for use on food crops, feed crops, and fiber crops. The compost must be used in a legitimate manner as a soil amendment. Yard waste compost quality must not exceed the annual average concentration found in paragraph 360-5.5(c)(3).
(13) On-site product storage is limited to 24 months.
(c) Monitoring, record keeping, and reporting.
(1) Daily operational records must be maintained for the facility and must include, in addition to the information required under subdivision 360-1.14(i) of this Part, all monitoring data, the quantity and character of material processed, the quantity of product removed from the facility, and product use.
(2) A copy of the complete and final permit application and all monitoring and operational data obtained to demonstrate compliance with this Subpart must be retained by the applicant in accordance with subdivision 360-1.14(i).
(3) Annual analysis of the compost is required for the parameters outlined in Table 11 of Section 360-5.10.
(i) all samples must be representative of the product that will be distributed. With the exception of pH and total solids, all results must be reported on a dry weight basis; and
(ii) all analyses must be performed by a laboratory certified by the New York State Department of Health, using methods acceptable to the department, unless an alternate laboratory is approved by the department. Acceptable methods are listed in paragraph 360-5.5(a)(1). Copies of the original laboratory results must be included.
(4) Analysis of the leachate may be required, as determined by the department.
(5) The permittee must submit an annual report to the department's central office and appropriate regional office no later than March 1 of each year covering the previous calendar year, on forms prescribed by or acceptable to the department. The report must include, at a minimum:
(i) the type and quantity, by weight and volume, of waste received at the facility;
(ii) the turning frequency (if applicable) and the timing and amount of any water addition;
(iii) the quantity, by weight and volume, of total compost produced;
(iv) any monitoring that occurred during the operation;
(v) the quantity, by weight or volume, of compost removed from the facility; and
(vi) a description of the end-product distribution.
§360-5.8 Products Generated Outside New York State
An organic waste derived product, other than one generated solely from yard waste, food waste, food processing waste, or animal manure, which is generated outside the jurisdiction of New York State, and which is offered for sale or given away within New York State will no longer be considered solid waste as outlined in paragraph 360-1.15(b)(2), provided the following criteria are satisfied.
(a) Request for Product Distribution.
Prior to distribution of the product in New York State, a written request to distribute an organic waste derived product must be submitted to the department and corresponding written confirmation must be obtained from the department. The request must be submitted to the department's central office and contain, at a minimum, the following:
(1) a description of the processing facility and all solid waste sources;
(2) a copy of the permits or other approvals for the processing facility and the appropriate excerpts from applicable rules and regulations from the applicable authority where the product is generated;
(3) a minimum of three analyses of the product for the parameters listed in Groups A and B of paragraph 360-5.5(a)(1) of this Subpart;
(4) a description of the methods to reduce pathogens and vector attraction, with appropriate monitoring data, as determined by the department;
(5) a description of how and where the product will be distributed and used in New York State and the quantity of product that will be distributed or used in New York State;
(6) for products used in bulk on a farm, a description of any storage facilities for product that are located in New York State, including location, quantity stored, storage facility construction and duration of storage; and

(7) a copy of the label or printed literature for the product.
(b) Pathogen and vector attraction reduction.
The requirements outlined in subdivision 360-5.5(b) of this Part apply.
(c) Contaminant limits and product use.
The product quality and product use must comply with the criteria found in subdivision 360-5.5(c) of this Part.
(d) Monitoring, record keeping, and reporting.
(1) A minimum of one analysis of the product is required for each 1000 cubic yards of product distributed in New York State. The parameters and associated requirements are found in paragraph 360-5.5(e)(3).
(2) An annual report must be submitted to the department's central office by March 1 of each year. The report must include:
(i) all information and analytical results required by this section;
(ii) the quantity of product distributed in New York State;
(iii) a description of the product storage and product use; and
(iv) an outline of all problems encountered, complaints received, actions taken to mitigate such problems, and the outcomes.
§360-5.9 Research Projects
The requirements for engineering plans, reports, and specifications found in sections 360-1.9, 360-5.4, 360-5.6 and 360-5.7 of this Part may be modified for facilities used solely for research purposes under the direction of a professional engineer licensed in the State of New York or a research scientist affiliated with an accredited university or research institution located within the State of New York.
(a) Permit application.
In addition to the permit application requirements set forth in subdivision 360-1.13(b), the permit application for a research project for an organic waste processing facility must contain a copy of the research proposal. The research proposal must:
(1) describe the proposed activity in detail;
(2) contain a detailed discussion that includes the project objectives, schedule, site location and characteristics, equipment used, waste involved, monitoring proposals, and methods for evaluating project performance;
(3) contain any of the information required in this Subpart, as determined by the department;
(4) contain an outline of all personnel involved and their responsibilities; and
(5) contain written permission of all landowners, if not the applicant, to use the land for the research project.
(b) Design and operational requirements.
(1) The quantity of waste handled is limited to the amount necessary to address the research objectives.
(2) Project summary report. Unless otherwise approved by the department, within 90 days of the expiration date of the research, development and demonstration permit, a project summary report must be submitted to the department that includes the following information:
(i) a summary of the project objectives, information gathered, analyses conducted, and project results; and
(ii) any operating problems, any other limitations encountered and areas of further study.
(c) Permit restrictions.
A research, development and demonstration permit issued under this section is subject to the restriction and renewal criteria found in subdivisions 360-1.13(a),(c) and (d) of this Part.
§360-5.10 Tables
Table 1 Parameters for Analysis - Biosolids/Sludge

Group A	Group B	Group C
Total Kjeldahl Nitrogen	Arsenic	Extended
Ammonia	Cadmium	Parameters
Nitrate	Chromium (total)	(see Table 2)
Total Phosphorous	Copper	
Total Potassium	Lead	
pH	Mercury	
Total Solids	Molybdenum	

Total Volatile Solids	Nickel	
	Selenium	
	Zinc	

Table 2 Extended Parameters List

VOLATILE ORGANIC COMPOUNDS		
	POLLUTANT	CAS
1	Acrolein	107-02-8
2	Acrylonitrile	107-13-1
3	Benzene	71-43-2
4	Bromoform	75-25-2
5	Carbon tetrachloride	56-23-5
6	Chlorobenzene	108-90-7
7	Chlorodibromomethane	124-48-1
8	Chloroethane	75-00-3
9	2-chloroethylvinyl ether	110-75-8
10	Chloroform	67-66-3
11	Dichlorobromomethane	75-27-4
12	1,1-dichloroethane	75-34-3
13	1,2-dichloroethane	107-06-2
14	Trans-1,2-dichloroethylene	156-60-5
15	1,1-dichloroethylene	75-35-4
16	1,2-dichloropropane	78-87-5
17	1,3-dichloropropene	542-75-6
18	Ethylbenzene	100-41-4
19	Methyl bromide	74-83-9
20	Methyl chloride	74-87-3
21	Methylene chloride	75-09-2
22	1,1,2,2-tetrachloroethane	79-34-5
23	Tetrachloroethylene	127-18-4
24	Toluene	108-88-3
25	1,1,1-trichloroethane	71-55-6
26	1,1,2-trichloroethane	79-00-5
27	Trichloroethylene	79-01-6
28	Vinyl chloride	75-01-4
ACID-BASE-NEUTRAL COMPOUNDS		

New York

	POLLUTANT	CAS
	* Acid-extractable compounds	
1	4-chloro-3-methylphenol	59-50-7
2	2-chlorophenol	95-57-8
3	2,4-dichlorophenol	120-83-2
4	2,4-dimethylphenol	105-67-9
5	4,6-dinitro-2-methylphenol	534-52-1
6	2,4-dinitrophenol	51-28-5
7	2-nitrophenol	88-75-5
8	4-nitrophenol	100-02-7
9	Pentachlorophenol	87-86-5
10	Phenol	108-95-2
11	2,4,6-trichlorophenol	88-06-2
	*Base-Neutral compounds	
12	Acenapthene	83-32-9
13	Acenaphthylene	208-96-8
14	Anthracene	120-12-7
15	Benzidine	92-87-5
16	Benzo(a)anthracene	56-55-3
17	Benzo(a)pyrene	50-32-8
18	Benzo(b)fluoranthene	205-99-2
19	Benzo(g,h,i)perylene	191-24-2
20	Benzo(k)fluoranthene	207-08-9
21	Bis(2-chlorethoxy)methane	111-91-1
22	Bis(2-chloroethyl) ether	111-44-4
23	Bis(2-chloroisopropyl) ether	108-60-1
24	Bis(2-ethylhexyl) phthalate	117-81-7
25	4-bromophenyl phenyl ether	101-55-3
26	Butyl benzyl phthalate	85-68-7
27	2-chloronapthalene	91-58-7
28	4-chlorophenyl phenyl ether	7005-72-3
29	Chrysene	218-01-9
30	Di-n-butyl phthalate	84-74-2
31	Di-n-Octyl phthalate	117-84-0
32	Dibenzo(a,h)anthracene	95-50-1

33	1,2-dichlorobenzene	53-70-3
34	1,3-dichlorobenzene	541-73-1
37	Diethyl phthalate	84-66-2
38	Dimethyl phthalate	131-11-3
39	2,4-dinitrotoluene	121-14-2
40	2,6-dinitrotoluene	606-20-2
41	1,2-diphenylhydrazine	122-66-7
42	Fluoranthene	206-44-0
43	Fluorene	86-73-7
44	Hexachlorobenzene	118-74-1
45	Hexachlorobutadiene	87-68-3
46	Hexachlorocyclopentadiene	77-47-4
47	Hexachloroethane	67-72-1
48	Indeno(1,2,3-cd)pyrene	193-39-5
49	Isophorone	78-59-1
50	Naphthalene	91-20-3
51	Nitrobenzene	98-95-3
52	N-nitrosodipropylamine	621-64-7
53	N-nitrosodimethylamine	62-75-9
54	N-nitrosodiphenylamine	86-30-6
55	Phenanthrene	85-01-8
56	Pyrene	129-00-0
57	1,2,4-trichlorobenzene	120-82-1
PESTICIDES/PCBs		
	POLLUTANT	CAS
1	Aldrin	309-00-2
2	Alpha-BHC	319-84-6
3	Beta-BHC	319-85-7
4	Delta-BHC	319-86-8
5	Gamma-BHC [Lindane]	58-89-9
6	Alpha-chlordane	5103-71-9
7	Gamma-chlordane	5103-74-2
8	4,4'-DDD [p,p'-TDE]	72-54-8
9	4,4'-DDE [p,p'-DDX]	72-55-9
10	4,4'-DDT	50-29-3

11	Dieldrin	60-57-1
12	Alpha-endosulfan	959-98-8
13	Beta-endosulfan	33213-65-9
14	Endosulfan sulfate	1031-07-8
15	Endrin	72-20-8
16	Endrin aldehyde	7421-93-4
17	Heptachlor	76-44-8
18	Heptachlor epoxide	1024-57-3
19	PCB-1016 (Arochlor 1016)	12674-11-2
20	PCB-1221 (Arochlor 1221)	11104-28-2
21	PCB-1232 (Arochlor 1232)	11141-16-5
22	PCB-1242 (Arochlor 1242)	53469-21-9
23	PCB-1248 (Arochlor 1248)	12672-29-6
24	PCB-1254 (Arochlor 1254)	11097-69-1
25	PCB-1260 (Arochlor 1260)	11096-82-5
26	Toxaphene	8001-35-2
	POLLUTANT	CAS
1	Antimony	7440-36-0
2	Beryllium	7440-41-7
3	Silver	7440-22-4
4	Thallium	7440-28-0
5	Cyanide	57-12-5

Table 3 Analyses Required with Permit Application

Biosolids/Sludge Used (dry tons/year)	Minimum Number of Analyses	
	Groups A & B	Group C
>1000	6	1
200 to 1000	3	1
25 to 199	2	1
<25	1	0

Table 4 Pollutant Limits - Class B Materials & Input To Class A Facilities

Parameter	Monthly Average Concentration mg/kg, dry weight	Maximum Concentration mg/kg, dry weight
Arsenic (As)	41	75
Cadmium (Cd) *	21	85
Chromium (Cr-total)	1000	1000

Copper (Cu)	1500	4300
Lead (Pb)	300	840
Mercury (Hg)	10	57
Molybdenum (Mo)	40	75
Nickel (Ni)	200	420
Selenium (Se)	100	100
Zinc (Zn)	2500	7500

*if the monthly average cadmium concentration exceeds 5 ppm, dry weight basis, the cadmium/zinc ratio must not exceed 0.015

Table 5 Cumulative Metal Loading Limits

Metal	Cumulative Loading Limit (lbs./acre)	
	Ag. Soil Groups 1-3	Ag. Soil Groups 4-10
Cadmium	3	4
Chromium	300	446
Copper	75	112
Lead	267	267
Nickel	30	45
Zinc	150	223

Table 6 Analyses Required During Operation - Biosolids

Biosolids Used (Dry tons/year)	Minimum Number of Analyses	
	Groups A & B	Group C
>1000	12	1
200 to 1000	6	1
25 to 199	4	1
<25	2	0

Table 7 Pollutant Limits - Products

Parameter	Monthly Average Concentration mg/kg, dry weight	Maximum Concentration mg/kg, dry weight
Arsenic (As)	41	75
Cadmium (Cd) *	10	85
Chromium (Cr-total)	1000	1000
Copper (Cu)	1500	4300
Lead (Pb)	300	840
Mercury (Hg)	10	57
Molybdenum (Mo)	40	75
Nickel (Ni)	200	420
Selenium (Se)	100	100

Zinc (Zn)	2500	7500

* if the monthly average cadmium concentration exceeds 5 ppm, dry weight basis, the cadmium/zinc ratio must not exceed 0.015

Table 8 Parameters for Analysis - Biosolids/MSW/Sludge Products

Total Kjeldahl Nitrogen	Arsenic	Fecal coliform or Salmonella sp. bacteria
Ammonia	Cadmium	
Nitrate	Chromium	
Total Phosphorus	Copper	
Total Potassium	Lead	
pH	Mercury	
Total Solids	Molybdenum	
Total Volatile Solids	Nickel	
	Selenium	
	Zinc	

Table 9 Annual Product Testing Frequency - Biosolids/Sludge/MSW

Average Product Generated (Cubic yards per day)	Number of Analyses
>50	52
5-50	12
<5	6

Table 10 Annual Product Testing Frequency - SSOW

Average Product Generated (Cubic yards per day)	Number of Analyses
>50	12
5-50	4
<5	2

Table 11 Annual Product Analyses - Yard Waste Compost

Total Kjeldahl Nitrogen
Ammonia
Nitrate
Total Phosphorus
Total Potassium
pH
Total Solids
Total Volatile Solids

Table 12 Analytical Methods and Sample Management - Parameter Analytical Methods Maximum Holding Temperature/Time

Table 12 Analytical Methods and Sample Management

New York

Parameter	Analytical Methods	Maximum Holding Temperature/Time
FECAL COLIFORM	SM-9221 C or SM-9222 D	4ºC (39.2ºF)/24 hours
SALMONELLA SP.	SM-9260 D.1 or Kenner	4ºC (39.2ºF)/24 hours
VIABLE HELMINTH OVA	Yanko	4ºC (39.2ºF)/1 month
ENTEROVIRUSES	ASTM-D4994-89	-18ºC (0ºF)/2 weeks
TOTAL/VOLATILE SOLIDS	SM-2540 G	4ºC (39.2ºF)/7 days
pH	SW-9045	
TKN	SM-4500-Norg	4ºC(39.2ºF)/28 days
NO3-N (Nitrate)	SM-4500-NO3	4ºC(39.2ºF)/28 days
TOTAL PHOSPHOROUS	SM-4500-P	4ºC(39.2ºF)/28 days
POTASSIUM	SW-6010 or 7610	4ºC(39.2ºF)/6 months
AMMONIA	SM-4500-NH3	4ºC(39.2ºF)/28 days
ARSENIC	SW-6010 or 7060 or 7061	4ºC(39.2ºF)/6 months
CADMIUM	SW-6010 or 7130 or 7131	4ºC(39.2ºF)/6 months
CHROMIUM	SW-6010 or 7190 or 7191	4ºC(39.2ºF)/6 months
COPPER	SW-6061 or 7210	4ºC(39.2ºF)/6 months
LEAD	SW-6010 OR 7420 or 7421	4ºC(39.2ºF)/6 months
MERCURY	SW-7470 or 7471	4ºC(39.2ºF)/28 days
MOLYBDENUM	SW-6010 or 7480 or 7481	4ºC(39.2ºF)/6 months
NICKEL	SW-6010 or 7520	4ºC(39.2ºF)/6 months
SELENIUM	SW-6010 or 7740 or 7741	4ºC(39.2ºF)/6 months
ZINC	SW-6010 or 7950	4ºC(39.2ºF)/6 months
VOLATILE ORGANICS	SW-8260B	4ºC(39.2ºF)/14 days
SEMIVOLATILE ORGANICS	SW-8270C	4ºC(39.2ºF)/14 days
PESTICIDES/PCBs	SW-8081/8082	4ºC(39.2ºF)/14 days

All samples can be placed in a plastic or glass container except:
Pesticides/PCBs: amber glass jar Semivolatile Organics: amber glass jar with Teflon liner Volatile Organics: glass jar with Teflon liner
Analytical Methods:
SM- Standard Methods for the Examination of Water and Wastewater, 18th Ed., American Public Health Association, Washington, D.C., 1992. SW- Test Methods for Evaluating Solid Waste, SW-846, EPA, November 1986, as revised December 1987. ASTM- Standard Practice for Recovery of Viruses from Wastewater Sludge, Annual Book of ASTM Standards: Section 11, Water and Environmental Technology, 1992. Kenner- Kenner, B.A. and H.P.Clark, Detection and Enumeration of Salmonella and Pseudomonas aeruginosa. J. Water Pollution Control Federation, 46(9):2163-2171, 1974. Yanko- Yanko, W.A., Occurrence of Pathogens in Distribution and Marketing of Municipal Sludges,

SECTION .1400 - SOLID WASTE COMPOST FACILITIES

15A NCAC 13B .1401 REQUIREMENT FOR PERMIT

(a) All persons whose purpose is or includes the production of compost from solid waste or solid waste co-composted with other wastes shall not construct, operate, expand or modify a facility until a currently valid permit for a solid waste compost facility is issued by the Division. This provision also applies to facilities that accept, store, or produce compost or mulch from yard waste or from residues from agricultural products and processing. General Provisions, Siting, design, application, operational, distribution, and reporting requirements shall be in accordance with Rules .1402, .1403, .1404, .1405, .1406, .1407, and .1408 of this Section.

(b) Plans for a Large Type 3 or Type 4 Solid Waste Compost Facility Permit, or a permit for any facility located over a closed out disposal area shall be submitted in accordance with Rule .0201(a)(3) of this Subchapter. A minimum of four sets of plans shall be submitted within each application.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
Eff. December 1, 1991;
Amended Eff. May 1, 1996.

15A NCAC 13B .1402 GENERAL PROVISIONS FOR SOLID WASTE COMPOST FACILITIES

(a) Applicability. The provisions of this Rule apply to compost facilities that compost solid waste or co-compost solid waste with sludges that are not classified as a solid waste, functioning as a nutrient source. Facilities that co-compost with sewage sludge shall comply with all applicable Federal regulations regarding sludge management at 40 CFR 501 and 503. 40 CFR 503, subpart B is hereby incorporated by reference, including subsequent amendments or additions. Copies of the Code of Federal Regulations may be obtained from the Solid Waste Section at 401 Oberlin Road, Suite 150, Raleigh, NC 27605 at no cost.

(b) The provisions of this Section do not apply to compost facilities that compost sludge with municipal solid waste functioning only as a bulking agent.

(c) Solid Waste Compost Facilities that have been permitted prior to the effective date of this Rule shall meet the requirements of this Section within one year of the effective date of this Rule, or, within two years if more than one hundred thousand dollars ($100,000) of capital investment is necessary to comply with changes.

(d) Solid waste compost produced outside the State of North Carolina and imported into the state shall comply with the requirements specified in Rule .1407 of this Section.

(e) Compost that is disposed shall not count toward waste reduction goals.

(f) Solid waste compost facilities shall be classified based on the types and amounts of materials to be composted.

(1) Type 1 facilities may receive yard and garden waste, silvicultural waste, untreated and unpainted wood waste or any combination thereof.

(2) Type 2 facilities may receive pre-consumer meat-free food processing waste, vegetative agricultural waste, source separated paper or other source separated specialty wastes, which are low in pathogens and physical contaminants. Waste acceptable for a Type 1 facility may be composted at a Type 2 facility.

(3) Type 3 facilities may receive manures and other agricultural waste, meat, post consumer-source separated food wastes and other source separated speciality wastes or any combination thereof that are relatively low in physical contaminants, but may have high levels of pathogens. Waste acceptable for a Type 1 or 2 facility may be composted at a Type 3 facility.

(4) Type 4 facilities may receive mixed municipal solid waste, post collection separated or processed waste, industrial solid waste, non solid waste sludges functioning as a nutrient source or other similar compostable organic wastes or any combination thereof. Waste acceptable for a Type 1, 2 or 3 facility may be composted at a Type 4 facility.

(5) The listed waste types in Subparagraph (f)(2) of this Rule shall be considered to be low in pathogens and physical contaminants if handled so as to prevent development of contaminants or exposure to physical contamination. The listed waste types in Subparagraph (f)(3) of this Rule are likely to have high pathogens and low physical contamination. In determining whether a specific waste stream is acceptable for composting in a Type 2 or Type 3 facility, the Division shall consider the method of handling the waste prior to delivery to the facility as well as the physical characteristics of the waste. Testing for pathogens and physical contaminants may be required where a determination cannot be made based upon prior knowledge of the waste. Test methods shall be in accord with Appendices A and B to Table 3.

(6) Small facilities are those that receive less than 1000 cubic yards of material for composting per quarter, and occupy less than two acres of land, except that a Small Type 1 facility shall process or store less than 6,000 cubic yards of material per quarter.

(7) Large facilities are those that receive 1000 cubic yards or more of material for composting per quarter or occupy two acres or more of land, except that a Large Type 1 facility shall process or store more than 6,000 cubic yards of material per quarter.

(g) A permit is not required for the following operations:

(1) Backyard Composting.

(2) Farming operations and silvicultural operations where the compost is produced from materials grown on the owner's land and re-used on the owner's land or in his associated farming operations and not offered to the public.

(3) Small Type 1 Facilities meeting the following conditions:

(A) Notification of the Solid Waste Section prior to operation and on an annual basis as to:

(i) Facility location;

(ii) Name, address and phone number of owner and operator;

(iii) Type and amount of wastes received;

(iv) Composting process to be used; and

(v) Intended distribution of the finished product.

(B) Agreement to operate in accordance with operational requirements as set forth in Rule and the setbacks in Rule .1404(a)(1) - (9) of this Section.
(C) Facility operates in accordance with all other state or local laws, ordinances, rules, regulations or orders.
(D) Facility is not located over closed-out disposal site.
(E) Safety measures are taken to prevent fires and access to fire equipment or fire fighting services is provided.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
Eff. December 1, 1991;
Amended Eff. May 1, 1996.

15A NCAC 13B .1403 GENERAL PROHIBITIONS FOR SOLID WASTE COMPOST FACILITIES

(a) Neither hazardous waste nor asbestos containing waste shall be accepted at a facility or processed into compost.

(b) Household hazardous waste shall not be accepted by a facility, except in an area designated by facility site plans for storage, and shall not be processed into compost.

(c) Any compost made from solid waste which cannot be used pursuant to the requirements of this Rule shall be reprocessed or disposed of pursuant to the requirements of 15A NCAC 13B.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
Eff. December 1, 1991;
Amended Eff. May 1, 1996.

15A NCAC 13B .1404 SITING/DESIGN REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES

(a) A site shall meet the following requirements at the time of initial permitting and shall continue to meet these requirements throughout the life of the permit only on the property owned or controlled by the applicant or by the landowner(s) at the time of permitting:

(1) A site located in a floodplain shall not restrict the flow of the 100-year flood; reduce the temporary storage capacity of the floodplain; or result in washout of solid waste so as to pose a hazard to human life, wildlife, land or water resources;

(2) A 100-foot minimum buffer is required between all property lines and compost areas for Type 3 and 4 facilities, 50-foot for Type 1 or 2 facilities;

(3) A 500-foot minimum buffer is required between compost areas and residences or dwellings not owned and occupied by the permittee, except that Type 1 and Small Type 2 and 3 facilities shall have a 200-foot minimum buffer;

(4) A 100-foot minimum buffer is required between all wells and compost areas, except monitoring wells;

(5) A 50-foot minimum buffer is required between perennial streams/rivers and compost areas;

(6) A compost facility shall be located in accordance with 15A NCAC 2B .0200, Classification and Water Quality Standards Applicable to Surface Waters in North Carolina;

(7) All portions of any compost facility located over a closed-out disposal area shall be designed with a pad adequate to protect the disposal area cap from being disturbed, as defined in Part (a)(10)(E) of this Rule, and there shall be no runoff from the pad onto the cap or side slopes of the closed out area;

(8) A 25-foot minimum distance is required between compost areas and swales or berms to allow for adequate access of fire fighting equipment;

(9) A site shall meet the following surface water requirements:

(A) A site shall not cause a discharge of materials or fill materials into waters or wetlands of the state that is in violation of Section 404 of the Clean Water Act;

(B) A site shall not cause a discharge of pollutants into waters of the state that is in violation of the requirements of the National Pollutant Discharge Elimination System (NPDES), under Section 402 of the Clean Water Act; and

(C) A site shall not cause non-point source pollution of waters of the state that violates assigned water quality standards;

(10) A site shall meet the following groundwater requirements:

(A) A site shall not contravene groundwater standards as established under 15A NCAC 2L;

(B) Portions of a site used for waste receipt and storage, active composting, and curing shall have a soil texture finer than loamy sand and the depth to the seasonal high water table shall be maintained at least 12 inches for a Type 1 or 2 facility and 24 inches for a Type 3 facility, unless a pad is provided;

(C) A pad shall be provided for portions of a Type 4 facility used for waste receiving and storage, active composting, and curing;

(D) A pad is not required for storage of finished product that is dried so as to pass the Paint Filter Liquids Test (EPA Method 9095), and for which the storage area is prepared in such a manner that water does not collect around the base of the stored material, and where the depth to the seasonal high watertable is maintained at least 12 inches; and

(E) The linear coefficient of permeability of pads required in accordance with this Rule shall not be greater than 1 x 10(-7) centimeters per second. If natural soils are used, the liner must be at least 18 inches thick.

(b) For Subparagraphs (a)(2) through (a)(4) and Part (a)(10)(B) of this Rule, (dependent upon waste type, facility design, and regional topography) alternative minimum buffers or requirements may be increased if deemed necessary by the Division in order to protect public health and the environment or to prevent the creation of a nuisance.

(c) A site shall meet the following design requirements:

(1) A site shall not allow uncontrolled public access;

(2) A site shall meet the requirements of the Sedimentation Pollution Control Law (15A NCAC 4);

(3) A site shall meet the requirements of the Air Pollution Control Requirements (15A NCAC 2D) to minimize fugitive emissions and odors; and

(4) A site shall be designed to minimize odors at the property boundary.

History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;

15A NCAC 13B .1405 APPLICATION REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES

(a) The following information is required for an application for a permit to construct and operate a proposed Type 1, or a Small Type 2 or 3 solid waste compost facility; unless the permitting requirements are exempted by Paragraph (g) of Rule .1402 of this Section:

(1) An aerial photograph or scaled drawing, where one inch is less than or equal to 400 feet, accurately showing the area within one-fourth mile of the proposed site's boundaries with the following specifically identified:
  (A) Entire property owned or leased by the person proposing the facility;
  (B) Location of all homes, wells, industrial buildings, public or private utilities; roads; watercourses; dry runs; and other applicable information regarding the general topography within 500 feet of the proposed facility; and
  (C) Land use zoning of the proposed site.

(2) A letter from the unit of government having zoning jurisdiction over the site which states that the proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval or permit has been obtained.

(3) An explanation of how the site complies with siting and design standards in Rule .1404 of this Section.

(4) A detailed report indicating the following:
  (A) Waste type(s), source and estimated quantity of the solid waste to be composted, including the source and expected quantity of any bulking agent or amendment (if applicable), any expected recycle of bulking agent or compost, and any seasonal variations in the solid waste type or quantity; and
  (B) For facilities that utilize natural soils as a pad, a soil evaluation of the site conducted by a soil scientist down to a depth of four feet, or to bedrock or evidence of a seasonal high watertable, to evaluate all chemical and physical soil properties and depth of the seasonal high water table.

(5) Site plan at a scale where one inch is less than or equal to 100 feet to the inch that delineates the following:
  (A) Existing and proposed contours, at intervals appropriate to the topography;
  (B) Location and elevations of dikes, trenches, and other water control devices and structures for the diversion and controlled removal of surface water;
  (C) Designated setbacks and property lines;
  (D) Proposed utilities and structures; and
  (E) Areas for unloading, processing, active composting, curing, and storing of material.

(6) A description of the operation of the facility, which must include at a minimum:
  (A) Name, address and phone number for the person responsible for the operation of the facility;
  (B) List of personnel required and the responsibilities of each position;
  (C) Operation plan for the facility;
  (D) Special precautions or procedures for operating during wind, heavy rain, snow, freezing or other adverse conditions;
  (E) A description of actions to be taken to minimize noise, vectors, air borne particulates, and odors; and
  (F) A description of the ultimate use for the finished compost, method for removal from the site, and a contingency plan for disposal or alternative usage of residues or finished compost that cannot be used in the expected manner due to poor quality or change in market conditions.

(7) A report on the design of the facility, including:
  (A) Design capacity of the facility;
  (B) A process flow diagram of the entire facility, including the type, size, and location of all major equipment, and feedstock flow streams. The flow streams shall indicate the quantity of materials on a wet weight and volumetric basis;
  (C) The means for measuring, shredding, mixing, and proportioning input materials;
  (D) Anticipated process duration, including receiving, preparation, composting, curing, and distribution;
  (E) A description of the location of all temperature, air and any other type of monitoring points, and the frequency of monitoring;
  (F) A description of how the temperature control and monitoring equipment will demonstrate that the facility meets the requirements in Rule .1406 Items (10), (11), or (12) of this Section, as appropriate for the feedstock;

(G) The method of aeration provided and the capacity of aeration equipment; and
(H) A description of the method to control surface water run-on and run-off; and the method to control, collect, treat, and dispose of leachate generated.

(8) A description of the label or other information source that meets the requirements of Rule .1407(k) of this Section.

(9) Plans and specifications for the facility, including manufacturer's performance data for all equipment selected.

(10) A detailed operation and maintenance manual outlining:
(A) A quality assurance plan for the process and final product which lists the procedures used in inspecting incoming material; monitoring, sampling and analyzing the compost process and final product, testing schedule, and recordkeeping requirements;
(B) Contingency plans detailing corrective or remedial action to be taken in the event of equipment breakdown; non-conforming waste delivered to the facility; spills, and undesirable conditions such as fires, vectors and odors; and
(C) An explanation of how the facility will comply with operational requirements as outlined in Rule .1406 of this Section, detailed operational information and instruction, an outline of reports to be submitted in compliance with this Section, and safety instructions.

(11) As built drawings where applicable.

(b) The following information is required for an application for a permit to construct a proposed Large 2 or 3 or a Type 4 solid waste compost facility:

(1) An aerial photograph or scaled drawing, where one inch is less than or equal to 400 feet, accurately showing the area within one-fourth of the mile of the proposed site's boundaries with the following specifically identified:
(A) Entire property owned or leased by the person proposing the site;
(B) Location of all homes, wells, industrial buildings, public or private utilities and roads, watercourses, dry runs, and other applicable information regarding the general topography within one-fourth mile; and
(C) Land use and zoning of the proposed site.

(2) A letter from the unit of government having zoning jurisdiction over the site which states that the proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval or permit has been obtained.

(3) An explanation of how the site complies with siting and design standards in Rule .1404 of this Section.

(4) A detailed report indicating the following:
(A) Waste type(s), source and quantity of the solid waste to be composted, including the source and expected quantity of any bulking agent or amendment (if applicable), any expected recycle of bulking agent or compost, and any seasonal variations in the solid waste type or quantity;
(B) For facilities which utilize natural soils as a pad, a soil evaluation of the site conducted by a soil scientist down to a depth of four feet or to bedrock or evidence of a seasonal high water table, to evaluate all chemical and physical soil properties and depth of the seasonal high water table.

(5) Site plans at a scale where one inch is less than or equal to 100 feet to the inch that delineates the following:
(A) Existing and proposed contours, at intervals appropriate to the topography;
(B) Location and elevations of dikes, trenches, and other water control devices and structures for the diversion and controlled removal of surface water;
(C) Designated setbacks, buffer zones and property lines;
(D) Proposed utilities and structures;
(E) Access roads, details on traffic patterns;
(F) Areas for unloading, processing, active composting, curing, and storage of material;
(G) Areas for unloading, processing, and storing recyclables, household hazardous waste, and other materials, where applicable;
(H) Proposed surface and groundwater monitoring locations;
(I) Flood plains and wetlands; and
(J) Benchmarks.

(6) A description of the operation of the facility, which must include at a minimum:
(A) Name, address and phone number for the person responsible for the operation of the facility;

(B) Operation plan for the facility;
(C) List of personnel required and the responsibilities of each position;
(D) A schedule for operation, including days and hours that the facility will be open, preparations before opening, and procedures to be followed after closing for the day;
(E) For mixed waste processing facilities, plan for removing and disposal of household hazardous waste from the waste stream;
(F) Special precautions or procedures for operating during wind, heavy rain, snow, freezing or other adverse conditions;
(G) A description of actions to be taken to minimize noise, vectors, air borne particulates, and odors; and
(H) A description of the ultimate use for the finished compost, method for removal from the site, and a contingency plan for disposal or alternative usage of residues or finished compost that cannot be used in the expected manner due to poor quality or change in market conditions.

(7) A report on the design of the facility, including:
(A) Design capacity of the facility;
(B) A process flow diagram of the entire facility, including the type, size, and location of all major equipment, and feed stock flow streams. The flow streams shall indicate the quantity of material on a wet weight and volumetric basis;
(C) A description and sizing of the storage facilities for amendment, bulking agent, solid waste, recyclables, household hazardous waste and finished compost;
(D) The means for measuring, shredding, mixing, and proportioning input materials;
(E) Anticipated process duration, including receiving, preparation, composting, curing, and distribution;
(F) The separation, processing, storage, and ultimate disposal of non-compostable materials, if applicable;
(G) A description of the location of all temperature, air and any other type of monitoring points, and the frequency of monitoring;
(H) A description of how the temperature control and monitoring equipment will demonstrate that the facility meets the requirements in Rule .1406 Items (10), (11), or (12) of this Section, as appropriate for the feedstock;
(I) The method of aeration, including turning frequency or mechanical aeration equipment and aeration capacity;
(J) A description of the air emission and control technologies;
(K) A description of the method to control surface water run-off; and the method to control, collect, treat, and dispose of leachate generated; and
(L) A description of any recycling or other material handling processes used at the facility.

(8) A description of the label or other information source that meets the requirements of Rule .1407(k) of this Section.

(9) Engineering plans and specifications for the facility, including manufacturer's performance data for all equipment selected.

(c) The following information is required for reviewing an application for a permit to operate a Type 4 or Large Type 2 or 3 solid waste composting facility:

(1) Contingency plans detailing corrective or remedial action to be taken in the event of equipment breakdown; air pollution; non-conforming waste delivered to the facility; spills, and undesirable conditions such as fires, particulates, noise, vectors, odors, and unusual traffic conditions;

(2) A detailed operation and maintenance manual. The manual must contain general design information, a discussion of compliance with operational requirements as outlined in Rule .1406 of this Section, detailed operational information and instruction, equipment maintenance, list of personnel, required personnel training, outline of reports to be submitted in compliance with this Section, and safety instructions;

(3) A quality assurance plan for the process and final product which lists the procedures used in inspecting incoming materials; monitoring, sampling and analyzing the compost process and final product, testing schedule, and record keeping requirements;

(4) A fact sheet and process flow diagram that summarizes actual equipment sizing, aeration capacity, detention times, storage capacity, and flow rates (wet weight and volumetric) for the system and equipment chosen;

(5) As-built drawings;
(6) A copy of all applicable local, state, and Federal permits and approvals necessary for the proper operation of the facility; and
(7) Product marketing and distribution plan.

(d) An application for a permit modification shall be required for changes in facility ownership, an increase in facility capacity, or the addition of new feedstock materials.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
Eff. December 1, 1991;
Amended Eff. May 1, 1996.

15A NCAC 13B .1406 OPERATIONAL REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES

Any person who maintains or operates a solid waste compost facility shall maintain and operate the site to conform with the following practices:

(1) Plan and Permit Requirements:
  (A) Construction plans and conditions of permit shall be followed; and
  (B) A copy of the permit, plans, and operational reports shall be maintained on site at all times.

(2) Adequate erosion control measures shall be practiced to prevent on-site erosion and to control the movement of silt or contaminants from the site.

(3) Surface water shall be diverted from the operational, compost curing, and storage areas.

(4) Leachate shall be contained on site treated to meet the standards of the off-site disposal method.

(5) Access and Security Requirements:
  (A) Large sites shall be secured by means of gates, chains, berms, fences, or other security measures demonstrated to provide equivalent protection approved by the Division, to prevent unauthorized entry.
  (B) An operator shall be on duty at the site at all times while the facility is open for public use to ensure compliance with operational requirements and access to such facilities shall be controlled.
  (C) The access road to the site shall be of all-weather construction and maintained in good condition.

(6) A site shall only accept those solid wastes that it is permitted to receive.

(7) Safety Requirements:
  (A) Open burning of solid waste is prohibited.
  (B) Equipment shall be provided to control accidental fires and arrangements made with the local fire protection agency to immediately provide fire-fighting services when needed.
  (C) Personnel training shall be provided to insure that all employees are trained in site specific safety, remedial, and corrective action procedures.

(8) Sign Requirements:
  (A) Signs providing information on waste that can be received, dumping procedures, the hours during which the site is open for public use, the permit number and other pertinent information shall be posted at the site entrance.
  (B) Traffic signs/markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions.
  (C) Signs shall be posted stating that no hazardous waste, asbestos containing waste, or medical waste can be received at the site.

(9) Monitoring Requirements:
  (A) Specified monitoring and reporting requirements shall be met.
  (B) The temperature of all compost produced shall be monitored sufficiently to ensure that the pathogen reduction criteria is met.

(10) Compost process at Type 1 facilities shall be maintained at or above 55 degrees Celsius (131 degrees F) 3 days and aerated to maintain elevated temperatures.

(11) Types 2, 3 and 4 facilities shall maintain the compost process at a temperature above 40 degrees Celsius (104 degrees F) for 14 days or longer and the average temperature for that time shall be higher than 45 degrees Celsius (113 degrees F) or, Types 2, 3 and 4 facilities shall meet the vector attraction reduction requirements in 40 CFR 503.33(b)(4) or (7). Requirements of 40 CFR 503.33(b)(4) and (7) are hereby incorporated by reference, including any subsequent amendments or additions.

(12) The composting process shall qualify as a process to further reduce pathogens for all Type 3 and Type 4 facilities. The following are acceptable methods:
  (A) The windrow composting method, in which the following requirements apply: Aerobic conditions shall be maintained during the compost process. A temperature of 131 degrees F (55 degrees Celsius) or greater shall be maintained in the windrow for at least 15 days. During the high temperature period, the windrow shall be turned at least five times.
  (B) The static aerated pile composting method, in which the following requirements apply: Aerobic conditions shall be maintained during the compost process. The temperature of the compost pile shall be maintained at 131 degrees F (55 degrees Celsius) or greater for at least three days.
  (C) The within-vessel composting method, in which the temperature in the compost piles shall be maintained at a minimal temperature of 131 degrees F (55 degrees Celsius) for three days.

(13) Nitrogen bearing wastes shall be incorporated as necessary to minimize odor and the migration of nutrients.

(14) Miscellaneous Requirements:

(A) The finished compost shall meet the classification and distribution requirements outlined in Rule .1407 of this Section.

(B) The quality of the final product shall determine the allowable uses as outlined in Rule .1407 of this Section.

(C) The final product shall be approved by the Solid Waste Section as outlined in Rule .1407 Subparagraph (6)(b) of this Section.

(i) Non-compostable solid waste and unacceptable compost shall be disposed in a solid waste management facility permitted to receive the particular type of waste under 15A NCAC 13B.

(ii) The amount of compost stored at the facility shall not exceed the designed storage capacity.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29*
Eff. December 1, 1991;
RRC objection Eff. April 18, 1996 due to lack of statutory authority;
Amended Eff. June 1, 1996.

15A NCAC 13B .1407 CLASSIFICATION/DISTRIBUTION OF SOLID WASTE COMPOST PRODUCTS

(a) Compost shall not be applied to the land or sold or given away if the concentration of any metal exceeds the concentration in 40 CFR 502.13(b)(3) [See Table 1 below], unless the concentration of all metals are less than the values in 40 CFR 503.13(b)(1) and records are maintained to show compliance with the cumulative and annual metal levels in 40 CFR 503.13(b)(2) and (4).

Table 1

Metals	Concentration mg per kg
Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	36
Zinc	2800

(b) Solid Waste shall be classified based on Table 2:

Table 2

Grade	Manmade Inerts % dry wt. of inerts	Pathogen Reduction	Metal Concentration
A	#6	PFRP	Table 1
B	>6	NA	40 CFR 503.13(b)(1)

(c) Man made inerts shall not exceed 1 inch in size.

(d) Distribution of the defined grades shall be as follows:

(1) Grade A compost shall have unlimited, unrestricted distribution. This product may be distributed directly to the public;

(2) Grade B compost shall be restricted to distribution for land and mine reclamation, silviculture, and agriculture (on non-food chain crops) projects; and

(3) Compost or mulch that is produced at a Type 1 facility and that contains minimal pathogenic organisms, is free from offensive odor, and contains no sharp particles that would cause injury to persons handling the compost, shall have unrestricted applications and distributions if directions are provided with the compost product.

(e) Solid waste compost products may not be distributed or marketed until the permittee has provided adequate test data to the Division as outlined in Rule .1408 of this Section. Within 30 days of receipt of the test data, the Division shall approve or deny the distribution and marketing of the product based upon the compost classification and distribution scheme. As long as the test data required in Rule .1408 of this Section continues to verify that compost is produced to the specifications of this Rule, the Division's approval to distribute the compost shall be ongoing.

(f) The applicant is responsible for meeting any applicable requirements of the North Carolina Department of Agriculture, Fertilizer Section concerning the distribution of this product.

(g) If the owner intends to distribute the product, the owner shall provide instructions to the user on any restrictions on use and recommended safe uses and application rates. The following information shall be provided on a label or an information sheet and a copy of the label or information sheet shall be submitted to the Solid Waste Section:

(1) Classification grade as outlined in Paragraph (d) of this Rule;

(2) Recommended uses;

(3) Application rates;

(4) Restrictions on usage; and

(5) Total N (for products containing sludge).

History Note: Authority G.S. 130A-309.11; Eff. 12-1-91; RRC objection Eff. 4-18-96 due to lack of statutory authority; Amended Eff. 6-1-96.

15A NCAC 13B .1408 METHODS FOR TESTING AND REPORTING REQUIREMENTS

(a) The compost product from Type 2, 3, and 4 facilities shall be sampled and analyzed as follows:

(1) A composite sample of the compost produced at each compost facility shall be analyzed at intervals of every 20,000 tons of compost produced or every six months, whichever comes first, for test parameters for each Type of facility as designated in Table 3 of this Rule. Standard methods equivalent to those in Table 3 may be approved by the Division.

Table 3

Parameter	Unit	Facility	Test Method
Foreign Matter	%	all	see Subparagraph (d) of this Rule
Arsenic	mg/kg dry wt.	Type 4	See Appendix A
Cadmium	mg/kg dry wt.	all	
Chromium	mg/kg dry wt.	Type 4	
Copper	mg/kg dry wt.	all	
Lead	mg/kg dry wt.	all	
Mercury	mg/kg dry wt.	Type 4	
Nickel	mg/kg dry wt.	all	
Selenium	mg/kg dry wt.	Type 4	
Zinc	mg/kg dry wt.	all	
Pathogens	See Appendix B	all	See Appendix B
Total N	%	see *	Kjeldahl

* Total N required for products containing sludge subject to 40 CFR 503.

The parameters listed in Table 3 of this Rule may also be determined by methods accepted by the North Carolina Department of Agriculture.

(2) Sample collection, preservation, and analysis shall assure valid and representative results pursuant to a Division-approved quality assurance plan. At least three individual samples (of equal volume) shall be taken from each batch produced in separate areas along the side of the batch. Each sampling point shall be at a depth of two to six feet into the pile from the outside surface of the pile. Samples that have been analyzed for metals shall be composited and accumulated over a six month period or at intervals of every 20,000 tons of product produced, whichever comes first. Any sample collected for testing for pathogens and nutrients shall be a representative composit sample of the compost and shall be processed within a period of time required by the testing procedure.

(3) Compost containing sewage sludge shall be tested in accordance with 40 CFR 503, Subpart B.

(4) The Division may decrease or increase the parameters to be analyzed or the frequency of analysis based upon monitoring date, changes in the waste stream or processing, or information regarding the potential for presence of toxic substances that are not on the list of monitoring parameters.

(5) Foreign matter content shall be determined by passing a dried, weighed sample of the compost product through a one-quarter inch screen. EPA Method 160.3 shall be used to dry the sample. The material remaining on the screen shall be visually inspected, and the foreign matter that can be clearly identified shall be separated and weighed. The weight of the separated foreign matter divided by the weight of the total sample shall be determined and multiplied by 100. This shall be the percent dry weight of the foreign matter content.

(b) Record Keeping: All facility owners or operators shall record and maintain records for a minimum of five years. Records shall be available for inspection by Division personnel during normal business hours and shall be sent to the Division upon request:

(1) Daily operational records must be maintained, which include, at a minimum, temperature data (length of the composting period) and quantity of material processed;

(2) Analytical results on compost testing;

(3) The quantity, type and source of waste received;
(4) The quantity and type of waste processed into compost;
(5) The quantity and type of compost produced by product classification; and
(6) The quantity and type of compost removed for use or disposal, by product classification, and the market or permitted disposal facility.

(c) Annual Reporting: An annual report for the period July 1 to June 30 shall be submitted by all facility owners or operators to the Division by August 1, 1996 and every August 1 thereafter and shall contain:

(1) The facility name, address, and permit number;
(2) The total quantity in tons, with sludge values expressed in dry weight, and type of waste received at the facility during the year covered by the report, including tons of waste received from local governments of origin;
(3) The total quantity in tons, with sludge values expressed in dry weight, and type of waste processed into compost during the year covered by the report;
(4) The total quantity in tons and type of compost produced at the facility, by product classification, during the year covered by the report;
(5) The total quantity in tons and type of compost removed for use or disposal from the facility, by product classification, along with a general description of the market if for use during the year covered by the report;
(6) Monthly temperature monitoring to support Rule .1406 of this Section; and
(7) Results of tests required in Table 3 of this Rule.

(d) Yearly totals of solid waste received and composted shall be reported back to the local government of origin for annual recycling reporting.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
Eff. December 1, 1991;
RRC objection Eff. April 18, 1996 due to lack of statutory authority;
Amended Eff. June 1, 1996.

15A NCAC 13B .1409 APPROVAL OF ALTERNATIVE PROCEDURES AND REQUIREMENTS

(a) An owner or operator of a composting facility, subject to the provisions of this Rule, may request in writing the approval of an alternative procedure for the facility or the compost that is produced. The following information shall be submitted to the Solid Waste Section:

(1) The specific facility for which the exception is requested;
(2) The specific provisions of this Section for which the exception is requested;
(3) The basis for the exception;
(4) The alternate procedure or requirement for which the approval is sought and a demonstration that the alternate procedure or requirement provides equivalent protection of the public health and the environment; and
(5) A demonstration of the effectiveness of the proposed alternate procedure.

(b) An individual may request in writing the approval of a solid waste composting pilot or demonstration project for the purpose of evaluating the feasibility of such a project. The following information shall be submitted to the Solid Waste Section:

(1) The owner, operator, location, and contact numbers for the project;
(2) The specific primary waste stream for which the project is to be evaluated;
(3) The specific time frame for the project;
(4) The estimated amount of each type of waste or bulking material to be composted;
(5) The basis for running the pilot or demonstration project;
(6) A description of all testing procedures to be used;
(7) A description of the process to be used, including the method of composting and details of the method of aeration;
(8) The expected final usage or disposal of the final product; and
(9) An outline of the final report to be submitted to the Solid Waste Section upon completion of the project.

(c) For Paragraph (a) of this Rule, the Division will review alternative procedures only to the extent that adequate staffing is available.

(d) Permits shall not be required for primary and secondary school educational projects that take place on the school grounds and that receive less than one cubic yard of material per week.

History Note: *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
Eff. December 1, 1991;
RRC objection due to lack of statutory authority Eff. April 18, 1996;
Amended Eff. June 1, 1996.

CHAPTER 33-20-02.1
PERMIT PROVISIONS AND PROCEDURES

33-20-02.1-01. Solid waste management permit required. Every person who treats or transports solid waste or operates a solid waste management unit or facility is required to have a valid permit issued by the department, unless the activity is an emergency, exemption, or exception as provided in this section.

1. If the department determines an emergency exists, it may issue an order citing the existence of such emergency and require that certain actions be taken as necessary to meet the emergency in accordance with the provisions of North Dakota Century Code section 23-29-10.

2. A solid waste management permit is not required for the following activities or facilities:

   a. Backyard composting of leaves, grass clippings, or wood chips;

   b. A collection point for parking lot or street sweepings;

   c. Collection sites for wastes collected and received in sealed plastic bags from such activities as periodic cleanup campaigns for cities, rights of way, or roadside parks;

   d. Places which receive one or more recyclable materials, excluding garbage, for storage or for processing after which the material is transported for resource recovery, disposal, or storage;

   e. Onsite incinerators used by hospitals, clinics, laboratories, or other similar facilities solely for incineration of commercial waste or infectious waste generated onsite;

   f. Rock and dirt fills that receive any combination of rock, dirt, or sand; and

   g. Surface impoundments for storage, handling, and disposal of oil and gas exploration and production wastes on a lease or area permitted through the North Dakota industrial commission under North Dakota Century Code section 38-08-04.

h. The disposal into the mine spoils of the following wastes generated in the mining operation:

(1) Rock, boulders, and dirt; and

(2) Trees and brush.

i. The disposal of the following mining operation wastes into areas designated in a surface coal mining permit issued by the North Dakota public service commission for such disposal:

(1) Inert waste from inspected farmsteads;

(2) Wood materials including pallets, lumber, lathe, cablespools, and fenceposts;

(3) Brick, concrete block, and cured concrete; and

(4) Plastic material and pipe.

3. A permit for the transportation of solid waste is not required by persons who:

a. Transport solely their own waste to a solid waste management unit or facility;

b. Transport waste entirely within a facility regulated under this article or entirely on their property; or

c. Transport a recyclable material other than used oil or scrap tires.

History: Effective December 1, 1992; amended effective October 1, 1994; August 1, 1995.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-02.1-02. Permits by rule. The owner or operator of the following facilities is deemed to have obtained a permit for a solid waste management facility without making application for it as long as the owner or operator remains in compliance with section 33-20-04.1-01 and the rules and requirements provided in the respective subsections of this section:

1. A facility for inert waste operated for municipalities which together have one thousand or fewer people provided:

a. The owner or operator of a new facility or lateral expansion of a landfill notifies the department, on forms available from the department, ninety days prior to any construction;

b. The facility is in compliance with sections 33-20-02.1-04, 33-20-04.1-02, and 33-20-04.1-09 and with chapter 33-20-05.1.

2. A drop box facility in compliance with subsection 2 of section 33-20-04.1-06.

3. A waste pile for composting only grass and leaves that is operated for ten thousand or fewer people in compliance with section 33-20-04.1-07 provided the owner or operator notifies the department, on forms available from the department, ninety days prior to construction.

4. A pile of scrap tires accumulated by a tire dealer, a municipality, or a county which contains either one thousand three hundred or fewer car tires, twenty-five tons [22.7 metric tons] or less of shredded tires or a pile of tires, which is equivalent in volume to one twin-axle semitrailer load or less, provided that no public nuisance is created and the following requirements are addressed:

a. Access to the facility is monitored or controlled;

b. The location is accessible by fire control and emergency equipment; and

c. The owner or operator has appropriate provisions and financial arrangements for the recycling or disposal of tires.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-02.1-03. Permit compliance. All solid waste management facilities and activities must be performed, constructed, operated, and closed in a manner consistent with the permit application and subject to any modifications specified through permit conditions.

History: Effective December 1, 1992.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-02.1-04. Record of notice.

1. Within sixty days of the issuance of a permit for any landfill, surface impoundment or land treatment unit if not already completed, the owner or operator shall record a notarized affidavit with the county register of deeds. The affidavit must specify that this facility, as noted in the legal description, is permitted to accept solid waste for disposal. This affidavit must specify that another affidavit must be recorded upon the facility's final closure.

2. Within sixty days of completion of final closure of any landfill, surface impoundment or land treatment facility and prior to sale or lease of the property on which the facility is located, the owner shall comply with North Dakota Century Code section 23-29-13. The record or plat shall, in perpetuity, notify any person conducting a title search that the land has been used as a solid waste disposal facility. The record or plat must indicate the types and quantities of solid waste placed in the site and details on the site's construction, operation, or closure (including precautions against any building, earth moving, or tillage on the closed site) that are necessary to ensure the long-term maintenance and integrity of the closed facility.

3. The department must be provided a certified copy of any affidavit or plat within sixty days of recording.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-02.1-05. Property rights. An applicant for a permit for a solid waste management unit or facility shall acquire or possess a right to the use of the property for which a permit is sought, including the access route thereto. After closure, the applicant shall maintain the right of access to the site throughout the postclosure period.

History: Effective December 1, 1992.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-02.1-06. Permit modification, suspension, or revocation.

1. A permit may be modified, suspended, revoked, or denied by the department for reasons pertaining to: circumstances which do not meet the purpose and provisions of this article, the provisions of the permit, or the plans and specifications submitted as part of the application for permit; or, violations of any applicable laws or rules. The department shall provide written notice to the permittee.

2. If a change occurs during the life of a permit for transporting solid waste (such as the number or type of vehicles used to transport waste, the service area, the waste categories transported, or the solid waste management facilities use), the permittee shall notify the department in writing within thirty days.

3. If a change occurs during the life of a permit for a solid waste management unit or facility, as specified in subsection 4, the permittee shall apply for and receive a modification of the permit prior to enacting the change. Routine maintenance, repair, or replacement, or an increase in hours of operations may not be considered a construction

or operation change. Changes, including frequency of monitoring and reporting, waste sampling or analysis method, schedules of compliance, and revised cost estimates for closure and postclosure may be effected through written notice to and approval by the department.

4. The following changes at a permitted solid waste management unit or facility require a permit modification:

   a. A change to the facility boundaries or acreage;

   b. An increase in average daily solid waste specified in the permit or permit application, calculated by weight or volume for any twelve consecutive months;

   c. A change in the solid waste characteristics;

   d. An increase or decrease in finished height or finished slope of a landfill;

   e. Any increase in landfill trench or excavation depth;

   f. A change in facility site development which will result in impact to or encroachment into a one hundred-year floodplain, a ravine, a wetland, or a drainageway;

   g. A change in site drainage or management of runoff or run-on;

   h. A change in facility site development which will result in disposal of wastes closer to site boundaries than originally approved;

   i. The addition of solid waste management units, which, if sited independently, would require a permit; or

   j. Other changes that could have an adverse affect on the safety, health, or welfare of nearby residents, property owners, or the environment.

5. An application for modification of a solid waste management unit or facility shall follow the procedures and provisions of section 33-20-03.1-02.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-02.1-07. Renewal of permit. An application for renewal of any permit must be submitted at least sixty days prior to the expiration date. The application for renewal must follow the procedures and provisions of section 33-20-03.1-02. The

conditions of an expired permit continue in force until the effective date of a new permit, if the permittee has submitted a timely and complete application for a new permit and the department, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of the previous permit.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

CHAPTER 33-20-04.1
GENERAL PERFORMANCE STANDARDS

33-20-04.1-01. General location standards.

1. No solid waste management facility may be located in areas which result in impacts to human health or environmental resources or in an area which is unsuitable because of reasons of topography, geology, hydrology, or soils.

2. Sites for new, or for lateral expansions of, land treatment units, surface impoundments closed with solid waste in place, municipal waste landfills, industrial waste landfills, and special waste landfills must minimize, control, or prevent the movement of waste or waste constituents with geologic conditions and engineered improvements. Sites should be underlain by materials with low permeability to provide a barrier to contaminant migration.

   a. The following geographic areas or conditions must be excluded in the consideration of a site:

      (1) Where the waste is disposed within an aquifer;

      (2) Within a public water supply designated wellhead protection area;

      (3) Within a one hundred-year floodplain;

      (4) Where geologic or manmade features, including underground mines, may result in differential settlement and failure of a structure or other improvement on the facility;

      (5) On the edge of or within channels, ravines, or steep topography whose slope is unstable due to erosion or mass movement;

(6) Within woody draws; or

(7) In areas designated as critical habitats for endangered or threatened species of plant, fish, or wildlife.

b. The following geographic areas or conditions may not be approved by the department as a site unless the applicant demonstrates there are no reasonable alternatives:

(1) Over or immediately adjacent to principal glacial drift aquifers identified by the state engineer;

(2) Closer than one thousand feet [304.8 meters] to a down gradient drinking water supply well;

(3) Closer than two hundred feet [60.96 meters] horizontally from the ordinary high water elevation of any surface water or wetland;

(4) Within final cuts of surface mines; or

(5) Closer than one thousand feet [304.8 meters] to any state or national park.

c. The department may establish alternative criteria based on specific site conditions.

3. No municipal waste landfill or lateral expansion may be located within ten thousand feet [3048 meters] of any airport runway currently used by turbojet aircraft or five thousand feet [1524 meters] of any runway currently used by only piston-type aircraft. Owner or operators proposing a new site or lateral expansions for a municipal waste landfill within a five-mile [8.05-kilometer] radius of an airport must notify the affected airport and the federal aviation administration.

4. A minimum horizontal separation of twenty-five feet [7.62 meters] must be maintained between new or lateral expansions of solid waste management units and any aboveground or underground pipeline or transmission line. The owner shall designate the location of all such lines and easements.

History: Effective December 1, 1992; amended effective August 1, 1993; October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04

33-20-04.1-02. General facility standards. An owner or operator of a solid waste management facility shall comply with these general facility standards:

1. All personnel involved in solid waste handling and in the facility operation or monitoring must be instructed in specific procedures to ensure compliance with the permit, the facility plans, and this article as necessary to prevent accidents and environmental impacts. Documentation of training, such as names, dates, description of instruction methods, and copies of certificates awarded, must be placed in the facility's operating record.

2. The solid waste management facility shall comply with the water protection provisions of chapter 33-20-13.

3. The solid waste management facility may not cause a discharge of pollutants into waters of the state unless such discharge is in compliance with requirements of the North Dakota pollutant discharge elimination system pursuant to chapter 33-16-01.

4. The solid waste management facility may not cause a violation of the ambient air quality standard or odor rules, article 33-15, at the facility boundary.

5. Suitable control measures must be taken whenever fugitive dust is a nuisance or exceeds the levels specified in article 33-15.

6. Open burning is prohibited except as allowed under article 33-15.

7. A permanent sign must be posted at the entrance of a facility, or at the entrance of a solid waste management unit used by a facility for wastes generated onsite, which indicates the following:

   a. The name of the facility;

   b. The permit number;

   c. The name and telephone number of the owner and the operator if different than the owner;

   d. The days and hours the facility is open for access;

   e. The wastes not accepted for disposal; and

   f. Any restrictions for trespassing, burning, hauling, or nonconforming dumping.

8. The owner or operator of a facility shall periodically inspect solid waste managed at the facility, on a schedule proposed by the owner or operator and approved by the department, to control and reject unauthorized solid wastes as specified by this article, a permit, or a plan of operation.

9. All litter or windblown rubbish, trash, or garbage must be returned to collection containers or vehicles, to storage containers or areas, or to a solid waste management facility as soon as practicable.

History: Effective December 1, 1992; amended effective October 1, 1994; August 1, 1995.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-04.1-03. Plan of operation. All solid waste management facilities, except those permitted by rule, shall meet the requirements of this section.

1. The owner or operator of a solid waste management unit or facility shall prepare and implement a plan of operation approved by the department as part of the permit. The plan must describe the facility's operation to operating personnel and the facility must be operated in accordance with the plan. The plan of operation must be available for inspection at the request of the department. Each plan of operation must include, where applicable:

   a. A description of waste acceptance procedures, including categories of solid waste to be accepted and waste rejection procedures as required by subsection 2 of section 33-20-05.1-02 or subsection 8 of section 33-20-06.1-02 or subsection 2 of section 33-20-07.1-01 or subsection 4 of section 33-20-10-03;

   b. A description of waste handling procedures;

   c. A description of facility inspection activities required by subsection 2, including frequency;

   d. A description of contingency actions for the following:

      (1) Fire or explosion;

      (2) Leaks;

      (3) Ground water contamination;

      (4) Other releases (for example, dust, debris, failure of run-on diversion or runoff containment systems); and

      (5) Any other issues pertinent to the facility.

   e. Leachate removal system operation and maintenance procedures;

   f. Safety procedures;

   g. For landfills, implementation of sequential partial closure;

h. A description of industrial waste or special waste management procedures, which include:

(1) A procedure for notifying solid waste generators and haulers of the facility operating requirements and restrictions;

(2) A procedure for evaluating waste characteristics, liquid content, the specific analyses that may be required for specific wastes, and the criteria used to determine when analyses are necessary, the frequency of testing, and the analytical methods to be used;

(3) A procedure for inspecting and for identifying any special management requirements, and the rationale for accepting or rejecting a waste based on its volume and characteristics;

(4) Procedures for managing the following solid waste, as appropriate:

(a) Bulk chemical containers which contain free product or residue;

(b) Asbestos;

(c) Waste containing polychlorinated biphenyls at a concentration less than fifty parts per million;

(d) Radioactive waste;

(e) Rendering and slaughterhouse waste;

(f) Wastes that could spontaneously combust or that could ignite other waste because of high temperatures;

(g) Foundry waste;

(h) Ash from incinerators, resource recovery facilities, and power plants;

(i) Paint residues, paint filters, and paint dust;

(j) Sludges, including ink sludges, lime sludge, wood sludge, and paper sludge;

(k) Fiberglass, urethane, polyurethane, and epoxy resin waste;

(l) Spent activated carbon filters;

(m) Oil and gas exploration and production waste;

(n) Wastes containing free liquids;

(o) Contaminated soil waste from cleanup of spilled products or wastes; and

(p) Any other solid waste that the owner or operator plans to handle.

(5) The owner or operator must describe any solid waste that will not be accepted at the facility; and

i. The owner or operator must amend the plan whenever operating procedures, contingency actions, waste management procedures, or wastes have changed. The owner or operator shall submit the amended plan to the department for approval or disapproval.

2. The owner or operator shall inspect the facility to ensure compliance with this article, a permit, and approved plans. The owner or operator shall keep an inspection log including information such as the date of inspection, the name of the inspector, a notation of observations made, and the date and nature of any repairs or corrective action taken.

History: Effective December 1, 1992; amended effective August 1, 1993; October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-04.1-04. Recordkeeping and reporting. The owner or operator of a solid waste management facility, except those permitted by rule, shall comply with these recordkeeping and reporting requirements:

1. A solid waste management facility may not accept solid waste until the department has received and approved a report which includes narrative, drawings, and test results to certify that the facility has been constructed in accordance with the approved plans and specifications and as required by the permit.

2. An owner or operator shall keep an operating record consisting of a copy of each application, plan, report, notice, drawing, inspection log, test result or other document required by this article, including those enumerated in the subdivisions of this subsection, or a permit. The operating record must include any deviations from this article, the permit, and facility plans where department approval is required. The owner or operator shall provide a copy of any document in the operating record upon receiving a request from the department. The operating record must be kept at the facility, or at a location near the facility within North Dakota and approved by the department.

a. The permit preapplication, section 33-20-03.1-01.

b. The permit application, section 33-20-03.1-02.

c. An amended permit application, section 33-20-03.1-03.

d. The site characterization, section 33-20-13-01.

e. Any site demonstrations, section 33-20-04.1-01.

f. Documentation of training, section 33-20-04.1-02.

g. The plan of operation, section 33-20-04.1-03.

h. Facility inspection logs, section 33-20-04.1-03.

i. Records of notice, section 33-20-02.1-04.

j. As-built drawings and certifications, sections 33-20-04.1-04 and 33-20-04.1-05.

k. The ground water monitoring plan, all monitoring data, and statistical interpretations, section 33-20-13-02.

l. Records of the weight or volume of waste, section 33-20-04.1-09.

m. The closure plan, sections 33-20-04.1-05 and 33-20-14-02.

n. The postclosure plan, sections 33-20-04.1-09 and 33-20-14-02.

o. The financial assurance instruments for closure and postclosure, chapter 33-20-14.

p. Records of gas monitoring and remediation, section 33-20-06.1-02.

q. The annual report, section 33-20-04.1-04.

r. Notices of intent to close and completion of postclosure, sections 33-20-04.1-05 and 33-20-04.1-09 respectively.

s. The permit and any modifications, sections 33-20-02.1-03 and 33-20-02.1-06.

3. An owner or operator shall prepare and submit a copy of an annual report to the department by March first of each year. The annual report must cover facility activities during the previous calendar year and must include the following information:

a. Name and address of the facility;

b. Calendar period covered by the report;

c. Annual quantity for each category of solid waste in tons or volume;

d. Identification of occurrences and conditions that prevented compliance with the permit and this article; and

e. Other items identified in the facility plans and permit.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-04.1-05. General closure standards. The requirements of this section apply to all solid waste management facilities, unless otherwise specified.

1. Each owner or operator shall close their facility in a manner that achieves the following:

   a. Minimizes the need for further maintenance; and

   b. Controls, minimizes, or eliminates any escape of solid waste constituents, leachate, fugitive emissions, contaminated runoff, or waste decomposition products.

2. Sequential partial closure must be implemented to minimize the working face of a landfill.

3. Closure must be implemented within thirty days after receipt of the final volume of waste and must be completed within one hundred eighty days following the beginning of closure activities, unless otherwise specified and approved under subsection 5. Prior to beginning closure, the owner or operator must notify the department in writing of the intent to close.

4. The owner or operator of a landfill for which closure is completed in part or whole shall enter into the operating record and submit to the department:

   a. As-built drawings showing the topography, pertinent design features, extent of waste, and other appropriate information; and

   b. Certification by the owner or operator and a professional engineer that closure has been completed in accordance with the approved closure plan and this article.

5. Each owner or operator shall prepare and implement a written closure plan approved by the department as part of the permitting process. The closure plan must:

   a. Estimate the largest area ever requiring final cover at any time during the active life of the site;

   b. Estimate the maximum inventory of solid waste onsite over the active life of the facility;

   c. For landfills, describe the final cover and the methods to install the cover;

   d. Project time intervals at which sequential partial closure or closure is to be implemented;

   e. Describe the resources and equipment necessary for closure; and

   f. Identify closure costs estimates and provide financial assurance mechanisms as required by chapter 33-20-14.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-04.1-06. Transfer stations, processing systems, and drop box facilities.

1. Transfer stations and processing systems must be designed, constructed, and operated to meet the following, where applicable:

   a. Control access and maintain aesthetics with a combination of fencing, trees, shrubbery, or natural features;

   b. Be sturdy and constructed of easily cleanable material;

   c. Provide effective control of birds, rodents, insects, and other vermin;

   d. Be adequately screened to prevent and control blowing of litter;

   e. Provide protection of the tipping floor from wind, rain, or snow;

   f. Minimize noise and dust nuisances;

   g. Provide pollution control measures to protect surface water and ground water including runoff and equipment wash down water control measures;

h. Provide all-weather access roads and vehicular traffic areas;

i. Provide any necessary pollution control measures to protect air quality including odor and dust control and prohibit burning;

j. Prohibit scavenging;

k. Have communication capabilities to immediately summon fire, police, or emergency personnel in the event of an emergency; and

l. Remove all solid waste from the facility at closure to a permitted facility.

2. Drop box facilities must:

a. Be accessible by all-weather roads;

b. Be designed and serviced as often as necessary to ensure adequate capacity. Storage of solid waste outside the detachable containers is prohibited; and

c. Remove all remaining solid waste to a permitted facility and remove the drop box from the facility at closure.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04

33-20-04.1-07. Piles used for storage and treatment - Standards. This section is applicable to solid waste stored or treated in piles, composting, sludge piles, scrap tire piles, garbage which is in place for more than three days, putrescible waste, other than garbage, which is in place for more than three weeks, and other solid waste not intended for recycling which is in place for more than three months.

1. Vector control measures must be instituted when necessary to prevent the transmission of disease and otherwise prevent and reduce hazards created by rats, snakes, insects, birds, cats, dogs, skunks, and other animals or vermin.

2. An owner and operator of a waste pile, except composting of grass and leaves, shall:

a. Comply with the general facility standards of section 33-20-04.1-02; and

b. Maintain the site including the removal of all solid waste, as necessary, and at closure to a permitted facility, or otherwise

manage the waste that is in keeping with the purpose of this article.

3. Requirements for waste piles likely to produce a leachate are:

   a. Waste piles must be underlain by concrete, asphalt, clay, or an artificial liner. The liner must be of sufficient thickness and strength to withstand stresses imposed by waste handling equipment and the pile;

   b. Runoff and run-on control systems must be designed, installed, and maintained to handle a twenty-five-year, twenty-four-hour storm event;

   c. Based on site and waste characteristics and the proposed operation, the department may require that waste piles have the following:

      (1) A ground water monitoring system that complies with chapter 33-20-13;

      (2) A leachate collection and treatment system; and

      (3) Financial assurance; and

   d. The department may require that the entire base or liner be inspected for wear and integrity and repaired or replaced by removing storage waste or otherwise providing inspection access to the base or liner.

4. An owner or operator of a tire pile shall:

   a. Control access to the tire pile by fencing;

   b. Limit piles of scrap tires to a maximum basal area of ten thousand square feet [929 square meters] in size, which, along with the fire lane, must be underlain by concrete, asphalt, clay overlain with gravel, or other appropriate material of sufficient thickness, strength, and low permeability to withstand stresses imposed by waste handling equipment, fire control equipment, and to minimize liquid infiltration in case of a fire;

   c. Limit the height of the tire pile to twenty feet [6.1 meters];

   d. Provide for a fifty-foot [15.24-meter] fire lane around the tire pile;

   e. Provide site access by fire control equipment;

f. Provide run-on and runoff control systems adequate to control surface water from a twenty-five-year, twenty-four-hour precipitation event; and

g. Provide financial assurance adequate to remove stockpiled waste and to remediate environmental contingencies.

5. An owner or operator of a composting facility for grass and leaves shall:

a. Direct surface water or storm water from composting and waste storage areas;

b. Control surface water drainage to prevent leachate runoff;

c. Store solid waste separated from compostable material in a manner that controls vectors and aesthetic degradation, and remove this solid waste from the site to an appropriate facility at least weekly;

d. Turn the yard waste periodically to aerate the waste, maintain temperatures, and control odors; and

e. Prevent the occurrence of sharp objects greater than one inch [2.54 centimeters] in size in finished compost offered for use.

History: Effective December 1, 1992; amended effective October 1, 1994.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04

33-20-04.1-08. Treatment and resource recovery facilities. In addition to sections 33-20-04.1-02, 33-20-04.1-03, 33-20-04.1-04, and 33-20-04.1-05, the owner or operator of a facility which conducts treatment or resource recovery other than processing shall comply with these standards.

1. All liquids must be collected and treated to meet the water protection provisions of chapter 33-20-13.

2. Surface water must be diverted away from all open storage areas.

3. Solid waste must be confined to storage containers and areas specifically designed to store waste. Waste handling and storage systems must provide sufficient excess capacity to prevent nuisances, environmental impacts, or health hazards in the event of mechanical failure or unusual waste flows.

4. Resource recovery systems or facilities must be operated on first-in, first-out basis. Stored solid waste containing garbage may not be allowed to remain unprocessed for more than forty-eight hours unless adequate provisions are made to control flies, rodents, odors, or other environmental hazards or nuisances.

5. All solid waste, recovered materials, or residues must be controlled and stored in a manner that does not constitute a fire or safety hazard or a sanitary nuisance.

6. All residues from resource recovery systems or facilities must be handled and disposed according to this article.

7. All incinerators used for solid waste must be constructed and operated in compliance with article 33-15.

History: Effective December 1, 1992; amended effective October 1, 1994; August 1, 1995.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-05.2, 23-29-07.9

33-20-04.1-09. General disposal standards.

1. In addition to sections 33-20-04.1-02, 33-20-04.1-03, 33-20-04.1-04, and 33-20-04.1-05, the standards of this section apply to all landfills, surface impoundments closed with solid waste in place, and land treatment units, unless otherwise indicated.

2. Construction and operation standards for solid waste management facilities regulated by this section:

   a. Every solid waste landfill or facility shall have and maintain, or have access to, equipment adequate for the excavation, compaction, covering, surface water management, and monitoring procedures required by approval plans and this article.

   b. Roads must be constructed and maintained to provide access to the facility. Access roads must be cleaned and decontaminated as necessary.

   c. There must be available an adequate supply of suitable cover material, which, if necessary, must be stockpiled and protected for winter operation.

   d. The final cover of all disposal facilities must be designed and constructed in a manner that ensures the quality and integrity of the hydraulic barrier and the protective vegetative cover.

   e. The working face or open area of a landfill must be limited in size to as small an area as practicable. Sequential partial closure must be implemented as necessary to keep the disposal area as small as practicable and to close filled areas in a timely manner.

   f. All disposal facilities shall identify, quantify, remove, stockpile, and maintain suitable plant growth material for later use in closure.

g. Any recycling or salvage activity must be authorized by the owner or operator and must be in a separate area in a manner to avoid injury and interference with the landfill operation.

h. Vehicles, farm machinery, metal appliances, or other similar items brought to the facility for recycling may be stored temporarily in a separate area.

i. Vector control measures, in addition to the application of cover material, must be instituted whenever necessary to prevent the transmission of disease, prevent bird hazards to aircraft, and otherwise prevent and reduce hazards created by rats, flies, snakes, insects, birds, cats, dogs, and skunks.

j. All domestic animals must be excluded from the facility. Feeding of garbage to animals is prohibited.

k. All earthen material must be maintained onsite unless removal from the site is authorized by the department.

3. Construction and operation standards, excluding inert waste landfills.

a. The landfill must be designed and operated to prevent the run-on and runoff of surface waters resulting from a maximum flow of a twenty-five-year, twenty-four-hour storm.

b. Facilities receiving on average over twenty tons [18.2 metric tons] per day of solid waste shall make provisions for measuring all waste delivered to and disposed in the facility. Weight measurements are preferable; volume measurements (cubic yards) are acceptable.

c. Active areas of the landfill must be surveyed periodically to ensure that filling is proceeding in a manner consistent with the landfill design and that closure grades are not exceeded.

d. All run-on or runoff must be properly controlled to avoid its concentration on or in solid waste and to minimize infiltration into the waste material. Disposal shall avoid any areas within the facility where run-on or runoff accumulates.

e. Leachate removal systems must be operated and maintained to assure continued function according to the design efficiency. This shall include, where applicable:

(1) Flushing, inspection and, if necessary, repair of collection lines after placement of the first layer of waste in a landfill cell;

(2) Annual sampling and analysis of leachate for the parameters required under the ground water quality monitoring required under section 33-20-13-02;

(3) At minimum, semiannual monitoring of leachate head or elevations above the liner;

(4) Annual flushing of leachate collection lines to remove dirt and scale; and

(5) Inclusion of leachate removal system operation, inspection, and maintenance procedures in the operating record.

4. Closure standards, excluding land treatment units.

a. Closed solid waste management units may not be used for cultivated crops, heavy grazing, buildings, or any other use which might disturb the protective vegetative and soil cover.

b. All solid waste management units must be closed with a final cover designed to:

(1) Limit the amount of percolation that may enter the waste to meet the efficiency requirements for that type of solid waste management unit;

(2) Minimize precipitation run-on from adjacent areas;

(3) Minimize erosion and optimize drainage of precipitation falling on the landfill. The grade of slopes may not be less than three percent, nor more than fifteen percent, unless the applicant or permittee provides justification to show steeper slopes are stable and will not result in long-term surface soil loss in excess of two tons [1.82 metric tons] per acre per year. In no instance may slopes exceed twenty-five percent; and

(4) Provide a surface drainage system which does not adversely affect drainage from adjacent lands.

c. The final cover must include six inches [15.2 centimeters] or more of suitable plant growth material which must be seeded with shallow rooted grass or native vegetation.

d. The department may allow, on a case-by-case basis, the use of closed inert waste landfill sites for certain beneficial uses that would not pose a threat to human health or the environment.

5. Postclosure standards for solid waste management facilities regulated by this section.

   a. The owner or operator of a landfill or a surface impoundment closed with solid waste in place shall meet the following during the postclosure period:

      (1) Maintain the integrity and effectiveness of the final cover, including making repairs to the cover to correct effects of settlement, subsidence, and other events, and preventing run-on and runoff from eroding or otherwise damaging the final cover;

      (2) Maintain and operate the leachate collection system, if applicable;

      (3) Monitor the ground water and maintain the ground water monitoring system, if applicable; and

      (4) Operate and maintain the gas control system, if applicable.

   b. The owner or operator of a municipal waste landfill, an industrial waste landfill, a special waste landfill, a surface impoundment closed with solid waste remaining in place, or a land treatment facility shall prepare and implement a written postclosure plan approved by the department as a part of the permitting process. The postclosure plan must address facility maintenance and monitoring activities for a postclosure period of thirty years.

      (1) Postclosure includes appropriate ground water monitoring; surface water monitoring; gas monitoring; and maintenance of the facility, facility structures, and ground water monitoring systems.

      (2) The postclosure plan must provide the name, address, and telephone number of the person or office to contact during the postclosure period; and project time intervals at which postclosure activities are to be implemented, identify postclosure cost estimates, and provide financial assurance mechanisms as required by chapter 33-20-14.

      (3) The department may require an owner or operator to amend the postclosure plan, including an extension of the postclosure period, and implement the changes. If the permittee demonstrates that the facility is stabilized, the department may authorize the owner or operator to discontinue postclosure activities.

c. Following completion of the postclosure period, the owner or operator shall notify the department verifying that postclosure management has been completed in accordance with the postclosure plan.

History: Effective December 1, 1992; amended effective August 1, 1993; October 1, 1994; August 1, 1995; January 1, 2009.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04, 23-29-07

33-20-04.1-10. Other methods of solid waste management - Standards. New and unique methods developed subsequent to December 1, 1992, which can be utilized without environmental degradation and creation of hazards to public health and safety will be considered by the department.

History: Effective December 1, 1992.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04

CHAPTER 33-20-09
LAND TREATMENT PROVISIONS

33-20-09-01. Applicability. The standards of this chapter apply to facilities that engage in land treatment of solid waste. These standards do not apply to the following:

1. Facilities utilizing municipal and domestic sludge;

2. Agricultural waste, including animal manure and agricultural residues, resulting from farming operations;

3. Composting grass clippings and leaves; and

4. Inert waste.

History: Effective December 1, 1992.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04

33-20-09-02. Land treatment standards.

1. Owners or operators of land treatment facilities shall meet the location standards of section 33-20-04.1-01.

2. Owners or operators of land treatment facilities shall meet the minimum standards for performance of chapter 33-20-13, the general facility requirements of section 33-20-04.1-02, and the general disposal standards of section 33-20-04.1-09.

3. Owners or operators of land treatment facilities shall design these facilities to meet the following requirements:

   a. Provide waste storage facilities, if appropriate, that meet the requirements of this article;

   b. Collect and treat all runoff from a twenty-five-year, twenty-four-hour storm, and divert all run-on for the maximum flow of a twenty-five year, twenty-four-hour storm around the active area;

   c. Avoid standing water on the active area;

   d. Avoid slopes and other features that will lead to soil and waste erosion, unless contour plowing or other measures are taken to avoid erosion; and

e. Control access to the site by fencing or other means.

4. Owners and operators of land treatment facilities shall maintain and operate these facilities in compliance with these following requirements:

   a. Land treatment of garbage or regulated infectious waste is prohibited;

   b. Analyze solid waste according to departmentally approved methods;

   c. Avoid applying waste at rates greater than ten times agronomic rates using the proposed cover crop, or depths greater than would allow for tilling the soil by tracked vehicles;

   d. Provide tilling of soils during the growing season and after each application of waste to maintain aerobic soil conditions;

   e. Amend the soil and soil nutrients as necessary to promote efficient biological breakdown of waste materials;

   f. Avoid applying waste to any active area having standing water; and

   g. Avoid food chain crops during the active life of the facility and after closure until demonstrated to be safe. Specific approval in writing from the department is required for any land treatment disposal facility that is used to raise food crops after closure.

5. All owners or operators of land treatment facilities shall close these facilities in accordance with section 33-20-04.1-05.

History: Effective December 1, 1992.
General Authority: NDCC 23-29-04
Law Implemented: NDCC 23-29-04

Ohio law (Chapter 3734 of the Ohio Revised Code) considers solid waste composting a form of solid waste disposal utilizing controlled biological decomposition. Therefore, composting is regulated by the Ohio EPA-DSIWM (Composting Unit). Current rules regarding solid waste composting can be found under Chapter 3745-27 of the Ohio Administrative Code (OAC), specifically Rules 3745-27-40 to 3745-27-47.

The solid waste composting program requires or specifies that a composting facility obtains a registration, license, and/or permit as applicable, according to the classification of the facility. Other requirements established by the program include: what types of wastes can be composted, operational requirements of the facility, and testing requirements for the finished product prior to distribution. Wastes which may be acceptable for composting are categorized as feed stocks types, bulking agents or additives.

The composting rules classify composting facilities according to the wastes that can be accepted and, in some cases, the size of the facility. Solid waste composting facilities are classified in OAC Rule 3745-27-40 as one of the following:

Class I:

These facilities may accept a variety of solid wastes such as mixed solid waste (glass, food, plastics, pesticides, household cleaners, etc.), food waste, yard waste and other industrial wastes. Class I facilities do not have size restrictions. These facilities require a permit, license and financial assurance.

Class II:

This classification may accept only source-separated yard waste, animal wastes, specified agricultural wastes, authorized bulking agents and additives, and other alternative materials. Alternative materials (feed stocks, bulking agents and additives) may be utilized in the compost process, if prior approval is obtained from the Director. Class II facilities do not have size limitations. Such facilities require a license, financial assurance and registration.

- *Exceptions:* If the facility exclusively co-composts sewage sludge with source- separated yard wastes and/or animal wastes and/or bulking agents, it is exempt from the requirements of the solid and infectious waste regulations and solid waste disposal fees, but subject to the requirements of the water pollution control and air pollution control regulations.

Class III:
These types of facilities may accept only source-separated yard waste, animal wastes, specified agricultural wastes, authorized bulking agents and additives. These facilities must be limited to less than fifteen thousand square yards of total area. Class III facilities only require a registration.

Class IV:
These types of facilities may accept only source-separated yard waste, authorized bulking agents, and the following additives: urea and bacteria or fungal inoculum. These facilities do not have size restrictions. Class IV facilities only require a registration.

Note: As noted in OAC Rule 3745-27-40 (I), alternative materials may be utilized at Class II facilities, with prior approval of the Director. Such materials include feed stocks, bulking agents and additives, other than those listed. Previous approvals for feed stocks include paper mill sludge, gypsum paper residual, salad trimmings, coffee grounds, and pre and post consumer food wastes. An approval was also granted for the use of diatomaceous earth as a bulking agent. (All alternative material approvals are site-specific.) Class I and II facilities can also compost dead animals with prior approval from the Director.

Codification through the 2008 legislative session.
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TITLE 252. DEPARTMENT OF ENVIRONMENTAL QUALITY
CHAPTER 515. MANAGEMENT OF SOLID WASTE

PART 5. REQUIRED MAPS AND DRAWINGS

PART 7. ADDITIONAL MAPS FOR LAND DISPOSAL FACILITIES

PART 1. GENERAL PROVISIONS

252:515-3-1. Permit required

(a) **Solid waste disposal facilities.** The following solid waste disposal facilities are subject to the requirements of this Subchapter and require a solid waste permit from the DEQ prior to construction and/or operation:

(1) land disposal facilities;

(2) solid waste processing facilities, including:

(A) transfer stations;

(B) solid waste incinerators receiving waste from off-site sources;

(C) regulated medical waste processing facilities receiving waste from off-site sources, and that are not shared service facilities;

(D) waste tire facilities;

(E) composting facilities, except yard waste composting facilities;

(F) permanently established household hazardous waste collection facilities; and

(G) any other type of facility that processes solid waste;

(3) facilities used for the storage of solid waste for longer than 10 days; and

(4) facilities used for the storage of more than 50 waste tires, except as authorized by 27A O.S. § 2-11-401.7.

(b) **Sludge.** Solid waste disposal facilities used for the beneficial use, transport, disposal, or storage of sludge that is not subject to the direct jurisdiction of any other environmental regulatory agency of the State of Oklahoma shall obtain a permit in accordance with OAC 252:515-3-41.

252:515-3-2. Permit not required

(a) The following do not require a solid waste permit and are not subject to the requirements of this Subchapter, but may be subject to other DEQ permits or requirements:

(1) rock and dirt fills that receive only uncontaminated rock, dirt, concrete, bricks or solidified asphalt;

(2) disposal sites used by a person for disposal of solid waste from his or her household, provided:

(A) the disposal site is on land owned by that person;

(B) the solid waste does not originate from business or commercial activities; and

(C) such disposal does not violate any local government ordinance or create a nuisance or hazard to public health or the environment;

(3) emergency disposal sites approved by the DEQ when a natural disaster creates a need for additional public solid waste disposal sites in the disaster area;

(4) on-site incinerators meeting the exemption requirements of 27A O.S. § 2-10-501(K);

(5) on-site regulated medical waste treatment activities by hospitals, clinics, or laboratories, or other similar facilities for treatment of regulated medical wastes generated on-site;

(6) facilities that accept only source-separated recyclable materials for recycling;

(7) persons under a DEQ order to remediate an abandoned or inactive waste site in accordance with 27A O.S. § 2-10-301(H);

(8) facilities used as:

(A) a citizen collection station;

(B) a collection and processing point for source-separated, non-putrescible, recyclable wastes;

(C) a collection point for parking lot or street sweepings; or

(D) a collection point for wastes collected and received in sealed bags from such activities as periodic cleanup campaigns for cities, rights-of-way, or roadside parks;

(9) projects approved by the DEQ and a local conservation district in accordance with 27A O.S. § 2-10-301(J).

(b) Yard waste composting facilities that receive only yard waste from off-site sources and are operated in accordance with a plan approved by the DEQ are not subject to this Subchapter. The plan shall include, at a minimum:

(1) the permit application information identified in OAC 252:515-3-36(a)(1) through (a)(8);

(2) a demonstration of compliance with the location restrictions of Subchapter 5 of this Chapter; and

(3) a demonstration of how the facility will comply with applicable regulations of other state agencies or parts thereof, including the Water Quality Division of the DEQ.

(c) Units of local or county government wishing to use baled waste tires in engineering projects are not subject to

PART 1. GENERAL PROVISIONS

252:515-19-1. Applicability

(a) **Active land disposal facilities.** Parts 3, 5 and 13 of this Subchapter apply to all active land disposal facilities.

(b) **Active MSWLFs.** Parts 3, 5, and 7 of this Subchapter apply to all active MSWLFs.

(c) **Active solid waste processing facilities.** Parts 3 and 9 of this Subchapter apply to all active solid waste transfer stations and processing facilities, except waste tire facilities, regulated medical waste processing facilities, and solid waste composting facilities.

(1) **Waste tire facilities.** Waste tire facilities are subject to the requirements of Part 3 of this Subchapter, except OAC 252:515-19-33, as well as Parts 3 and 5 of OAC 252:515-21.

(2) **Regulated medical waste processing facilities.** Regulated medical waste processing facilities are subject to the requirements of Part 3 of this Subchapter as well as Parts 3 and 5 of OAC 252:515-23, as applicable.

(3) **Solid waste composting facilities.** Parts 3 and 11 of this Subchapter apply to all active solid waste composting facilities, including composting facilities at land disposal facilities.

(d) **Borrow areas.** Off-site soil borrow areas of land disposal facilities are only subject to the operational requirements of OAC 252:515-19-32, 35, 36, and 55.

PART 3. OPERATIONAL REQUIREMENTS FOR ALL DISPOSAL FACILITIES

252:515-19-31. Prohibited wastes

(a) **Hazardous, radioactive, regulated PCB waste.** The disposal of any quantity of hazardous, radioactive, or regulated polychlorinated biphenyl (PCB) waste at a solid waste disposal facility is prohibited.

(b) **Regulated medical waste.** The disposal of regulated medical waste at a solid waste disposal facility is prohibited, unless the facility is a permitted regulated medical waste processing facility.

(c) **Asbestos.** The disposal of friable asbestos waste at a solid waste disposal facility is prohibited unless the facility is a MSWLF or NHIW landfill specifically authorized by the permit to accept such waste.

(d) **NHIW.** The disposal of NHIW at a solid waste disposal facility is prohibited, unless specifically authorized by the permit.

(e) **C&D landfills.** The disposal of any waste other than construction/demolition waste at a C&D landfill is prohibited.

(f) **NHIW landfills.** In addition to the prohibitions of (a) through (c) of this Section, the disposal of any waste not authorized by the permit is prohibited at an NHIW landfill.

252:515-19-32. Public access control

Artificial and/or natural barriers shall be used to discourage unauthorized traffic and uncontrolled dumping.

252:515-19-33. Measuring waste

(a) **Land disposal facilities.** Except as provided for in (b) of this Section, all waste delivered to and disposed of at a land disposal facility shall be weighed on certified scales.

(1) **Location.** Scales shall be installed on or within five miles of the land disposal facility.

(2) **Annual certification.** Scales shall be tested and certified annually in accordance with the requirements of the Oklahoma Department of Agriculture, Food, and Forestry.

(3) **Scales inoperative.** If the scales are inoperative, tonnage shall be estimated on a volume basis where one cubic yard of solid waste shall be calculated to weigh one-third ton.

(4) **Fees.** Solid waste disposal fees shall be collected and remitted to the DEQ in accordance with 27A O.S. § 2-10-802(B), except for:

(A) solid waste that is productively reused or recovered in accordance with the facility permit; or

(B) solid waste received from emergencies or other special events, with prior approval from the DEQ.

(5) **Monthly reports.** Monthly reports in a format prescribed by the DEQ shall be filed in the operating record and submitted to the DEQ no later than the 15th of the month following the reporting month.

(b) **Exception.** The requirements of (a) of this Section do not apply to:

(1) large NHIW generators who operate a landfill solely for waste from that generator, have paid the fees for the first 10,000 tons of solid waste disposed in the landfill, and have obtained an exemption certificate from the DEQ; and

(2) generator owned and operated NHIW monofills.

(c) **Other disposal facilities.** All waste received at other solid waste disposal facilities, including those identified in (b)(2) of this Section, shall be measured, either by weight or by volume (cubic yards), recorded in the operating record, and made available to the DEQ upon request.

252:515-19-34. Limitations on waste received

(a) **Local area.** Except as provided in (b) of this Section, no solid waste disposal facility shall accept more than 200 tons of waste per day from locations more than 50 miles from the facility, unless the facility is either:

(1) a MSWLF constructed with an approved composite liner and leachate collection system meeting the requirements of this Chapter and operated in full compliance with the requirements of this Chapter; or

(2) is any other type of solid waste disposal facility that is designed and constructed in accordance with the requirements of this Chapter and operated in full compliance with the requirements of this Chapter.

(b) **Temporary waiver.** The DEQ may approve a temporary waiver from (a) of this Section in the event of an emergency.

(c) **Out-of-state.** No solid waste disposal facility shall accept more than 200 tons of waste per day from outside the State of Oklahoma unless the facility is either:

(1) a landfill constructed with an approved composite liner and leachate collection system meeting the requirements of this Chapter; or

(2) is a non-landfill solid waste disposal facility that is designed and constructed in accordance with the requirements of this Chapter; and

(3) has an approved disposal plan meeting the requirements of (d) of this Section; and

(4) is operated in full compliance with the requirements of this Chapter.

(d) **Disposal plan.** The disposal plan identified in (c)(3) of this Section shall identify the types and sources of waste to be received at the landfill, the amount to be received, transporters to be used, and any special handling or management practices to be employed for the collection, transportation, storage, treatment, and disposal of such waste.

(1) **NHIW.** If NHIW is to be received, the disposal plan shall also identify the NHIW generators and demonstrate each has complied with the applicable requirements of Subchapter 31 of this Chapter.

(2) **Keep current.** The disposal plan must be kept current by the person submitting the original plan.

(3) **Notification of changes.** The DEQ shall be notified within five working days before any changes to the plan are implemented.

(e) **Rejection of waste.** Shipments of waste received at the facility shall be rejected if the requirements of this Section are not met.

(f) **Return of waste.** All waste entering the State of Oklahoma that is subsequently rejected in accordance with (e) of this Section shall be removed from the State by those persons who transported such waste into the State.

252:515-19-35. Litter control

(a) **Exception.** The DEQ may exempt a disposal facility from the requirements of this Section if all waste managed at the facility is not conducive to wind dispersal.

(b) **Litter control required.** Blowing litter shall be controlled by:

(1) providing litter fences near the working area or by use of a design that prevents blowing litter;

(2) ensuring that unloading occurs in a manner that will minimize scattering of refuse;

(3) posting signage to advise customers to adequately cover their loads to prevent blowing litter; and

(4) collecting litter from the site at least weekly, or more often if necessary.

(c) **Land disposal facilities.** Approach roadways within one-half mile of land disposal facilities shall be kept clean from litter.

252:515-19-36. Air criteria

(a) **Comply with Clean Air Act.** All disposal facilities shall be operated in compliance with the Oklahoma Clean Air Act, rules of the Air Quality Division of the DEQ, and any requirements of an approved State Implementation Plan.
(b) **Open burning prohibited.** Open burning of solid waste is prohibited.
(c) **Control dust.** All disposal facilities shall be operated to prevent the discharge of any visible fugitive dust emissions beyond the property boundaries so as to damage or interfere with the use of adjacent properties, or to cause air quality standards to be exceeded, or interfere with the maintenance of air quality standards.
(d) **Asbestos at land disposal facilities.** Friable asbestos received at a land disposal facility shall be managed in accordance with the DEQ's asbestos management requirements at OAC 252:100-41-16.

252:515-19-37. Disease vector control
(a) **Exception.** A disposal facility receiving only non-putrescible solid waste is not subject to the requirements of this Section.
(b) **Vector control required.** On-site populations of disease vectors shall be controlled using techniques appropriate for the protection of human health and the environment.

252:515-19-38. Placement of waste
(a) **Waters of the state.** Solid waste shall not be placed or allowed to enter, accidentally or otherwise, waters that communicate with waters of the state located outside the permit boundary.
(b) **Buffer zones.** Unless otherwise specified in this Subsection, all disposal facilities shall be designed and maintained with a waste-free buffer zone at least 50 feet in width between all waste disposal and/or handling areas and adjacent property. The buffer zone shall be contained within the permit boundary described in the permit application.
(1) **Previously disposed waste.** If waste has been previously disposed in an adjacent area, then the fifty foot buffer zone shall not apply in that portion.
(2) **MSWLFs.** MSWLFs incorporating land not permitted for disposal prior to July 1, 1994 shall have a waste-free buffer zone of at least 100 feet in width.
(3) **Waste tire facilities.** Waste tire facilities shall maintain restricted areas in accordance with OAC 252:515-21-32(g).
(4) **Smaller buffer zones authorized.** The DEQ may approve smaller buffer zones for good cause shown.
(c) **Use of buffer zone.** Buffer zones and other restricted areas may be used for the temporary collection and storage of source-separated recyclable materials, if such use is described in an approved recycling plan.

252:515-19-39. Salvage and recycling
(a) **Approved plan required.** Salvage and/or recycling operations shall be conducted in accordance with a written plan approved by the DEQ.
(b) **Land disposal facilities.** Salvage and recycling activities at land disposal facilities must be conducted in an area away from the working face.

252:515-19-40. Recordkeeping and reporting
(a) **All solid waste disposal facilities.** An operating record shall be maintained near each solid waste disposal facility, containing all records concerning the planning, construction, operation, closing, and post-closure monitoring of the facility. Such records shall be maintained until the post-closure monitoring period is terminated and shall include, but are not necessarily limited to, those records required to be maintained in the operating record and/or submitted to the DEQ by Subchapters 3, 5, 17, 19, 25, and 27 of this Chapter.
(b) **Land disposal facilities.** In addition to the records identified in (a) of this Section, the operating record for all land disposal facilities shall contain those records required to be maintained and/or submitted to the DEQ by Subchapters 7, 9, 11, 13, 15, 29, and 31 of this Chapter.
(c) **Regulated medical waste and waste tire facilities.** In addition to the records identified in (a) of this Section, the operating record for regulated medical waste processing facilities and waste tire facilities shall contain those records required to be maintained and/or submitted to the DEQ by Subchapters 23 and 21, respectively.

PART 5. COVER AND SOIL BORROW REQUIREMENTS FOR LAND DISPOSAL FACILITIES

252:515-19-51. Daily cover
(a) **Daily cover required.** Solid waste disposed at land disposal facilities shall be covered with at least six inches of compacted earthen material.
(b) **Waste free.** The earthen material shall be free of garbage, trash or other unsuitable material.
(c) **Minimum frequency.**
(1) **C&D landfills.** Daily cover at C&D landfills shall be applied a minimum of once every seven days. More frequent application may be required for adequate control of disease vectors, fires, odors, blowing litter, or scavenging.
(2) **NHIW landfills.** Daily cover at NHIW landfills shall be applied in accordance with the permit for the facility. More frequent application than that specified by the permit may be required for adequate control of disease vectors, fires, odors, blowing litter, or scavenging.
(3) **MSWLFs and other land disposal facilities.** Daily cover at MSWLFs and other land disposal facilities shall be applied a minimum of once per day at the end of each operating day. More frequent application may be required for adequate control of disease vectors, fires, odors, blowing litter, or scavenging.
(d) **Alternative daily cover.** The DEQ may approve the use of an alternative daily cover upon a demonstration the alternative is capable of controlling disease vectors, fires, odors, and blowing litter without presenting a threat to human health or the environment.

252:515-19-52. Intermediate cover

(a) **Intermediate cover required.** An additional 12 inches of compacted earthen material shall be applied over all disposal areas not protected by final cover meeting the requirements of OAC 252:515-19-53 or managed with run-off control structures meeting the requirements of OAC 252:515-17-2(2).
(b) **Design standard.** Intermediate cover must be capable of sustaining vegetation.
(c) **Waste free.** The intermediate cover material shall be free of garbage, trash or other unsuitable material.
(d) **Alternative intermediate cover.** The DEQ may approve the use of an alternative intermediate cover upon a demonstration the alternative is capable of minimizing infiltration of water and meets the standards of (b) and (c) of this Section.

252:515-19-53. Final cover
(a) **Design standard.** When final cover is installed, it shall be installed in accordance with the approved closure plan, and shall, at a minimum, be comprised of an erosion layer over a barrier layer.
(1) **Barrier layer.** The barrier layer shall be at least 24 inches of earthen material with a hydraulic conductivity:
(A) less than or equal to the hydraulic conductivity of any bottom liner system or natural subsoils present; or
(B) no greater than 1 x 10^{-5} cm/sec; whichever is less.
(2) **Erosion layer.** An erosion layer shall be installed above the barrier layer, consisting of at least one foot of soil capable of sustaining plant growth.
(3) **Gradient.** To prevent ponding, the final cover gradient on top of the fill, as measured from the center of the fill area to the break in slope between the top and sides of the fill, shall be four percent (4%) (25:1), unless otherwise approved by the DEQ.
(4) **Side slopes.** The final side slope gradient shall not exceed twenty-five percent (25%) (4:1).
(5) **Vegetation.** Vegetation meeting the requirements of OAC 252:515-19-54(3), (4), and (5) shall be established during the first growing season.
(6) **Contours.** Surface contours, including final grading of completed disposal areas, shall prevent ponding of water and erosion of fill areas.
(7) **Waste free.** The final cover material shall be free of garbage, trash or other unsuitable material.
(b) **MSWLFs.** A flexible membrane liner equivalent to that used in the bottom liner system shall be installed between the barrier layer and the erosion layer at MSWLFs equipped with a composite liner.
(c) **Alternative final cover.** The DEQ may approve the use of an alternative final cover design upon a demonstration the alternative provides equivalent protection to that afforded by (a) and (b) of this Section.

252:515-19-54. Vegetative cover
Vegetative cover shall be established at all commercial landfills exceeding 50 feet above natural surface contours and accepting more than 200 tons per day of solid waste.
(1) **Time to establish.** Permanent or interim vegetation shall be established in all disposal areas that have been undisturbed for 90 days or more.
(2) **Interim vegetation.** Interim vegetation must be quick-germinating, fast-growing and capable of providing erosion and dust control. The operator shall not plant noxious vegetation.
(3) **Permanent vegetation.** Permanent vegetation must be effective, long-lasting and capable of self-regeneration and plant succession. The operator shall not plant noxious vegetation.
(4) **Type of vegetation.** Plant species shall be used that are of equal or superior utility to native vegetation during each season of the year.
(5) **Prohibited plants.** Deep-rooted plants, trees, or other similar vegetation is prohibited.

252:515-19-55. Soil borrow areas
On- and off-site soil borrow areas which are no longer to be used to obtain soil shall be reshaped and revegetated, or otherwise reclaimed, to blend with surrounding terrain within 180 days of the date the area ceased being used.

PART 7. ADDITIONAL OPERATIONAL REQUIREMENTS FOR MSWLFs

252:515-19-71. Bulk liquids
Bulk or non-containerized liquid waste shall not be disposed at a MSWLF unless:
(1) the waste is household waste other than septic waste;
(2) the waste is leachate or gas condensate derived from a cell with a composite liner and leachate collection system and is recirculated or used for irrigation in accordance with 252:515-13-53 or 54, respectively; or
(3) the waste is sufficiently mixed with earth, kiln dust, fly ash, or other suitable material to pass the PFLT prior to disposal.

252:515-19-72. Containers
Containers holding liquid wastes shall not be disposed at a MSWLF unless the containers are:
(1) similar in size and in quantity to that normally found in household waste;
(2) designed to hold liquids for use other than storage; or
(3) derived from household waste.

252:515-19-73. Municipal sewage
Municipal sewage sludge treated to Class B requirements, as described in 40 CFR 503.32(b), may be disposed at a MSWLF if the sludge passes the PFLT.

252:515-19-74. Bulking plan
(a) **Approved plan.** To accept liquid waste at a MSWLF, the permit must be modified to reflect an approved liquids bulking plan describing how liquid waste will be mixed with earth, kiln dust, fly ash, or other suitable material, and be

tested and certified to pass the PFLT prior to disposal.
(b) **Lined areas required.** Mixing activities must be performed on lined areas or areas with secondary containment.
(c) **Separate area.** Mixing areas must be separate from the working face unless otherwise approved by DEQ.

252:515-19-75. Control of emissions

MSWLFs shall be operated in compliance with the provisions of OAC 252:100-47, Control of Emissions from Existing Municipal Solid Waste Landfills, and 40 CFR Part 60, Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills.

PART 9. ADDITIONAL OPERATIONAL REQUIREMENTS FOR WASTE PROCESSING FACILITIES

252:515-19-91. Processing time for putrescible waste

(a) **Processing time.** Except as provided for in (b) of this Section, all putrescible waste delivered to a transfer station or processing facility shall be processed within 24 hours of delivery.

(1) If appropriate odor and vector control measures, as defined in the permit, are implemented, processing time may be extended to 48 hours.

(2) If processing failures occur, all putrescible wastes shall be removed within 96 hours to an alternate permitted disposal site.

(b) **Solid waste incinerators.**

(1) Putrescible waste shall be processed within 72 hours of delivery at processing facilities that operate on a seven day per week basis and utilize mass burn technology, pit storage, waste rotation, and negative pressure design in the refuse storage building.

(2) If processing failures occur, all putrescible wastes shall be removed within 168 hours to an alternate permitted disposal facility.

252:515-19-92. Large or bulky items

Large, heavy, or bulky items, shall be managed in accordance with a plan approved by the DEQ and identified in the permit.

252:515-19-93. Residue management

All processed waste and residues produced by the facility shall be appropriately characterized as hazardous or non-hazardous and disposed in a properly permitted disposal facility.

PART 11. ADDITIONAL OPERATIONAL REQUIREMENTS FOR SOLID WASTE COMPOSTING FACILITIES

252:515-19-111. Acceptable composting materials

(a) **Source separated.** Unless otherwise allowed by the permit or other authorization, composting materials received at the composting facility must be source separated.
(b) **Prohibited materials.** In addition to the materials identified in OAC 252:515-19-31(a) through (c), composting facilities shall not accept putrescible wastes (except food wastes if authorized by the permit or other authorization), liquid waste, municipal solid waste, special waste, or any waste not specifically identified in the permit or other authorization.
(c) **Acceptable composting materials.** Materials to be composted shall be specified in the permit or other authorization. Acceptable composting materials may include: grass-clippings, garden debris, leaves, tree branches, shrubbery, wood chips, hay, cotton-gin waste, sawdust, newsprint paper, cardboard, computer paper, white paper, manure and food wastes.

252:515-19-112. Receiving area

Unloading of material shall be restricted to a specific area and controlled to minimize traffic congestion, facilitate the handling of materials and minimize danger to facility employees and other personnel.

252:515-19-113. Debagging required

All material received in plastic bags shall be debagged before processing, unless other means or methods are approved by the DEQ and identified in the permit or other authorization.

252:515-19-114. Processing area

A designated processing area shall be maintained, except facilities using windrow turners that may process the material in the composting area.

252:515-19-115. Processing time

All material received for composting shall be processed within 48 hours of receipt.

252:515-19-116. Composting area

The composting area shall be constructed of or covered with material which will allow operation during all types of weather.

252:515-19-117. Windrow construction

All windrows shall be constructed perpendicular to slopes and not along slopes.

252:515-19-118. Windrow turning

Windrows shall be turned on a routine basis to maintain aerobic conditions.

252:515-19-119. Invessel composting

Construction and management requirements for an invessel composting operation shall be determined on a case-by-case basis.

252:515-19-120. Temperature monitoring

(a) **Internal temperature recording.** Internal temperature readings shall be recorded prior to the turning of each windrow.
(b) **Internal temperature depths.** Temperature measurements shall be taken every 17 feet at a depth of 20 inches and recorded in a systematic fashion.

252:515-19-121. Completed process

After sustaining thermophilic temperatures, the composting process shall be considered complete when the internal temperatures remain below 70° F after three consecutive turnings, at which time the compost can be removed to the curing area.

252:515-19-122. Curing area and time

An area for curing of finished compost shall be maintained. Finished compost shall be allowed to cure for a minimum of two weeks before distribution and use.

252:515-19-123. Biosolids

Owners/operators of facilities incorporating biosolids shall:

(1) maintain internal windrow temperatures between 131° F and 140° F for a minimum of fifteen days;

(2) conduct a minimum of five turnings of the co-composting windrow, where the temperature pre- and post-turning exceeds 131° F; and

(3) comply with all applicable provisions of OAC 252:648, "Land Application of Biosolids."

252:515-19-124. Odor control

Suitable control measures, including increasing aeration, shall be taken whenever odors become a problem.

252:515-19-125. Other wastes

A receptacle shall be maintained for disposal of both refuse generated and unacceptable waste received at the site.

252:515-19-126. Recordkeeping

(a) **Daily log.** A log of daily operations shall be maintained at the facility that includes, at a minimum:

(1) amount of waste received, processed and distributed at the facility;

(2) windrow internal temperatures; and

(3) a record of which windrows were turned.

(b) **Available to DEQ.** This information shall be maintained at the site and made available for inspection upon request of the DEQ.

PART 13. WHEEL WASHES

252:515-19-131. Applicability

This part applies to owners and operators of active land disposal facilities who purchase and install a wheel wash system for use at the land disposal facility.

252:515-19-132. Eligibility deadlines

To be eligible for reimbursement of costs under this Part, the owner/operator must comply with the following statutory deadlines.

(1) **June 30, 2007.** The owner/operator must submit a notice of intent to claim allowance to the DEQ no later than June 30, 2007.

(2) **June 30, 2008.** The system must be installed and operational no later than June 30, 2008.

252:515-19-133. Definitions

The following words and terms, when used in this Part, shall have the following meaning unless the context clearly indicates otherwise:

"**Proper invoice**" means one which is complete in all requirements for processing for payment in accordance with 27A O.S. ' 2-10-802 and the rules in this Part, including but not limited to such documentation as may be required.

"**Wheel wash system**" means a permanent installation that uses an immersion bath or spray of water to clean mud, soil, rock, debris and other extraneous material from the tires and undercarriage of vehicles.

252:515-19-134. Approved costs

Capital investment costs directly attributable to the purchase and installation of the wheel wash system that may be approved for reimbursement may include but not be limited to the following:

(1) materials, supplies and equipment, including cost of transportation, whether incorporated or consumed;

(2) rental costs of machinery and equipment necessary for installation and start up, exclusive of hand tools;

(3) premiums for all bonds and insurance, permit fees and sales, use or similar taxes related to the installation and start up;

(4) labor, including social security and unemployment insurance, for installation and start up; fringe benefits required by agreement or custom, and workers' compensation insurance; and

(5) additional costs of supervision and field office personnel directly attributable to the installation and start up.

252:515-19-135. Disapproved costs

Operating costs(electricity, water, flocculent, labor, and other miscellaneous recurring operating expenses) repair costs, general maintenance, and replacement of parts and equipment are not capital investment costs and are not approved for reimbursement.

252:515-19-136. Reimbursement process

(a) **Installed and operational.** Once the wheel wash system is installed and operational, the owner/operator shall:

(1) **DEQ inspection.** Notify the DEQ. The DEQ may inspect the wheel wash to ensure that it meets the definition of "wheel wash system" in this Part and the water management and control standards in OAC 252:515-19-138; and

(2) **Proper invoice.** Provide the DEQ with a proper invoice and supporting documentation of the approved costs incurred.

(b) **DEQ review.** If the invoice is not a proper invoice or if costs submitted are not capital costs approved for reimbursement, the owner/operator shall be notified accordingly. The owner/operator may resubmit the invoice and documentation until the information submitted is

OAR Chapter 340, Divisions 93, 96, and 97.

1 DEPARTMENT OF ENVIRONMENTAL QUALITY

2 DIVISION 93

3 SOLID WASTE: GENERAL PROVISIONS

4 340-093-0005

5 Purpose and Applicability

6 The purpose of OAR chapter 340, divisions 93 through 97 is to prescribe requirements, 7 limitations, and procedures for storage, collection, transportation, treatment and disposal 8 of solid waste. All persons storing, collecting, transporting, treating and disposing of 9 solid waste in this state are subject to the provisions of OAR chapter 340, division 93 10 ("General Provisions"), in addition to any other rules in OAR chapter 340, divisions 94, 11 95, 96, and 97 governing the appropriate specific type of solid waste disposal site. This 12 division also describes uniform procedures for permitting by the Department as 13 prescribed in ORS 459.205 and 459.710 through 459.790.

14 Stat. Auth.: ORS 459.005 – ORS 459.418 15 Stats. Implemented: ORS 459.005 & ORS 459.015 16 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 5-1993, f. & 17 cert. ef. 3-10-93; Renumbered from 340-061-0005; DEQ 15-2000, f. & cert. ef. 10-11-00

18 340-093-0010

19 Policy

20 Whereas inadequate solid waste collections, storage, transportation, treatment, recycling 21 and disposal practices cause nuisance conditions, potential hazards to public health and 22 safety and pollution of the air, water and land environment, it is hereby declared to be the 23 policy of the Department of Environmental Quality to require effective and efficient solid 24 waste collection and disposal service to both rural and urban areas and to promote and 25 support comprehensive county or regional solid waste management planning, utilizing 26 progressive solid waste management techniques, emphasizing recovery and reuse of solid 27 wastes and insuring highest and best practicable protection of the public health and 28 welfare and air, water and land resources. In keeping with the Oregon policy to retain 29 primary responsibility for management of adequate solid waste programs with local 30 government units (ORS 459.015) and the Environmental Quality Commission's 31 perception of Legislative intent under Chapter 773, Oregon Laws 1979, the Commission 32 will look for, and expect, the maximum participation of local government in the planning, 33 siting, development and operation of needed landfills. It is expected that local 34 government will have carried out a good faith effort in landfill siting, including but not 35 limited to public participation and Department assistance, before requesting the 36 Department to site the landfill. Local government will be expected to assume or provide

for responsibility in the ownership and operation of any Department/Commission sited landfill under anything but an extraordinary circumstance.

Stat. Auth.: ORS 459.005 - ORS 459.418 & ORS 459A.100 - ORS 459A.120 Stats. Implemented: ORS 459.015 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 25-1980, f. & ef. 10-2-80; DEQ 30-1980, f. & ef. 11-10-80; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0015

340-093-0020

State of Oregon Solid Waste Plan

These rules constitute the State Solid Waste Plan for purposes of Section 4001 of the federal Resource Conservation and Recovery Act of 1976 as amended by PL 96-482, until such time as an Integrated State Solid Waste Management Plan is developed pursuant to ORS 459A.020.

Stat. Auth.: ORS 459.005 - ORS 459.418 & ORS 459A.100 - ORS 459A.120 Stats. Implemented: ORS 459.046 Hist.: DEQ 5-1981, f. & ef. 2-9-81; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0017

340-093-0030

Definitions

As used in OAR chapter 340, divisions 93, 94, 95, 96 and 97 unless otherwise specified:

(1) "Access Road" means any road owned or controlled by the disposal site owner that terminates at the disposal site and that provides access for users between the disposal site entrance and a public road.

(2) "Agricultural Waste" means waste on farms resulting from the raising or growing of plants and animals including but not limited to crop residue, manure, animal bedding, and carcasses of dead animals.~~means residues from agricultural products generated by the raising or harvesting of such products on farms or ranches.~~

(3) "Agricultural Composting" means composting conducted of agricultural waste by an agricultural operation (as defined in ORS 467.120(2)(a)) as an integral component of a system designed to improve soil health and recycle agricultural wastes. Agricultural composting is conducted on lands used for farming (as defined in ORS 215.203). ~~composting as an agricultural operation (as defined in ORS 467.120(2)(a)) conducted on lands employed for farm use (as defined in ORS 215.203). Agricultural composting operations may include supplemental feedstocks to aid in composting feedstocks generated on the farm~~

(4) "Agronomic Application Rate" means land application of no more than the optimum quantity per acre of compost, sludge or other materials. In no case shall such application adversely impact the waters of the state. Such application shall be designed to:

(a) Provide the amount of nutrient, usually nitrogen, needed by crops or other plantings, to prevent controllable loss of nutrients to the environment;

(b) Condition and improve the soil comparable to that attained by commonly used soil amendments; or

(c) Adjust soil pH to desired levels.

(5) "Airport" means any area recognized by the Oregon Department of Transportation, Aeronautics Division, for the landing and taking-off of aircraft which is normally open to the public for such use without prior permission.

(6) "Aquifer" means a geologic formation, group of formations or portion of a formation capable of yielding usable quantities of groundwater to wells or springs.

(7) "Asphalt paving" means asphalt which has been applied to the land to form a street, road, path, parking lot, highway, or similar paved surface and that is weathered, consolidated, and does not contain visual evidence of fresh oil.

(8) "Assets" means all existing and probable future economic benefits obtained or controlled by a particular entity.

(9) "Baling" means a volume reduction technique whereby solid waste is compressed into bales for final disposal.

(10) "Base Flood" means a flood that has a one percent or greater chance of recurring in any year or a flood of a magnitude equaled or exceeded once in 100 years on the average of a significantly long period.

(11) "Biological Waste" means blood and blood products, excretions, exudates, secretions, suctionings and other body fluids that cannot be directly discarded into a municipal sewer system, and waste materials saturated with blood or body fluids, but does not include diapers soiled with urine or feces.

(12) "Biosolids" means solids derived from primary, secondary or advanced treatment of domestic wastewater which have been treated through one or more controlled processes that significantly reduce pathogens and reduce volatile solids or chemically stabilize solids to the extent that they do not attract vectors.

(13) "Clean Fill" means material consisting of soil, rock, concrete, brick, building block, tile or asphalt paving, which do not contain contaminants which could adversely impact

the waters of the State or public health. This term does not include putrescible wastes, construction and demolition wastes and industrial solid wastes.

(14) "Cleanup Materials Contaminated by Hazardous Substances" means contaminated materials from the cleanup of releases of hazardous substances into the environment, and which are not hazardous wastes as defined by ORS 466.005.

(15) "Closure Permit" means a document issued by the ~~Department~~ department bearing the signature of the Director or his/her authorized representative which by its conditions authorizes the permittee to complete active operations and requires the permittee to properly close a land disposal site and maintain and monitor the site after closure for a period of time specified by the ~~Department~~department.

(16) "Commercial Solid Waste" means solid waste generated by stores, offices, including manufacturing and industry offices, restaurants, warehouses, schools, colleges, universities, hospitals, and other non-manufacturing entities, but does not include solid waste from manufacturing activities. Solid waste from business, manufacturing or processing activities in residential dwellings is also not included.

(17) "Commission" means the Environmental Quality Commission or the Commission's authorized designee.

(18) "Composted material" is the product resulting from the composting process.

(~~18~~19) "Composting" means the managed process of controlled biological decomposition of ~~organic or mixed solid waste~~organic material. A managed process includes but is not limited to reducing particle size, adding moisture, manipulating piles, and performing procedures to achieve human pathogen reduction. Composting may include amendments beneficial to the composting process. ~~It does not include composting for the purposes of soil remediation. Compost is the product resulting from the composting process.~~

(~~19~~20) "Composting Facility" means a site or facility ~~which utilizes~~ composting ~~organic solid waste~~feedstock ~~or mixed solid waste~~ to produce a useful product through a managed process of controlled biological decomposition. ~~Composting may include amendments beneficial to the composting process~~. Sites and facilities that use methods such as ~~V~~vermiculture, vermicomposting and agricultural composting to produce a useful product are also ~~operations are~~ considered composting facilities.

(~~20~~21)"Construction and Demolition Waste" means solid waste resulting from the construction, repair, or demolition of buildings, roads and other structures, and debris from the clearing of land, but does not include clean fill when separated from other construction and demolition wastes and used as fill materials or otherwise land disposed. Such waste typically consists of materials including concrete, bricks, bituminous concrete, asphalt paving, untreated or chemically treated wood, glass, masonry, roofing, siding, plaster; and soils, rock, stumps, boulders, brush and other similar material. This term does not include industrial solid waste and municipal solid waste generated in

residential or commercial activities associated with construction and demolition activities.

(~~21~~22) "Construction and Demolition Landfill" means a landfill that receives only construction and demolition waste.

(~~22~~23) "Corrective Action" means action required by the ~~Department~~ department to remediate a release of constituents above the levels specified in **40 CFR §258.56** or OAR chapter 340 division 40, whichever is more stringent.

(~~23~~24) "Cover Material" means soil or other suitable material approved by the ~~Department~~ department that is placed over the top and side slopes of solid wastes in a landfill.

(~~24~~25) "Cultures and Stocks" means etiologic agents and associated biologicals, including specimen cultures and dishes and devices used to transfer, inoculate and mix cultures, wastes from production of biologicals, and serums and discarded live and attenuated vaccines. "Culture" does not include throat and urine cultures.

(~~25~~26) "Current Assets" means cash or other assets or resources commonly identified as those that are reasonably expected to be realized in cash or sold or consumed during the normal operating cycle of the business.

(~~26~~27) "Current Liabilities" means obligations whose liquidation is reasonably expected to require the use of existing resources properly classifiable as current assets or the creation of other current liabilities.

(~~27~~28) "Department" means the Department of Environmental Quality.

(~~28~~29) "Digested Sewage Sludge" means the concentrated sewage sludge that has decomposed under controlled conditions of pH, temperature and mixing in a digester tank.

(~~29~~30) "Director" means the Director of the Department of Environmental Quality or the Director's authorized designee.

(~~30~~31) "Disposal Site" means land and facilities used for the disposal, handling, treatment or transfer of or energy recovery, material recovery and recycling from solid wastes, including but not limited to dumps, landfills, sludge lagoons, sludge treatment facilities, disposal sites for septic tank pumping or cesspool cleaning service, land application units (except as exempted by subsection (~~81~~82)(b) of this rule), transfer stations, energy recovery facilities, incinerators for solid waste delivered by the public or by a collection service, composting ~~plants~~ facilities and land and facilities previously used for solid waste disposal at a land disposal site; but the term does not include a facility authorized by a permit issued under ORS 466.005 to 466.385 to store, treat or dispose of both hazardous waste and solid waste; a facility subject to the permit requirements of ORS

468B.050; a site that is used by the owner or person in control of the premises to dispose of soil, rock, concrete or other similar non-decomposable material, unless the site is used by the public either directly or through a collection service; or a site operated by a wrecker issued a certificate under ORS 822.110.

(~~31~~32) "Domestic Solid Waste" includes, but is not limited to, residential (including single and multiple residences), commercial and institutional wastes, as defined in ORS 459A.100; but the term does not include:

(a) Sewage sludge or septic tank and cesspool pumpings;

(b) Building demolition or construction wastes and land clearing debris, if delivered to a disposal site that is limited to those purposes and does not receive other domestic or industrial solid wastes;

(c) Industrial waste going to an industrial waste facility; or

(d) Waste received at an ash monofill from an energy recovery facility.

(~~32~~33) "Endangered or Threatened Species" means any species listed as such pursuant to Section 4 of the federal Endangered Species Act and any other species so listed by the Oregon Department of Fish and Wildlife.

(~~33~~34) "Energy Recovery" means recovery in which all or a part of the solid waste materials are processed to use the heat content, or other forms of energy, of or from the material.

(35) “Feedstock” means materials used in a composting process to produce composted material:

(a) Type 1 feedstocks include source-separated yard and garden wastes, wood wastes, agricultural crop residues, wax-coated cardboard, vegetative food wastes including department approved industrially produced vegetative food waste, and other materials the department determines pose a low level of risk from hazardous substances, physical contaminants and human pathogens.

(b) Type 2 feedstocks include manure and bedding and other materials the department determines pose a low level of risk from hazardous substances and physical contaminants and a higher level of risk from human pathogens compared to type 1 feedstock.

(c) Type 3 feedstocks include dead animals, meat and source-separated mixed food waste and industrially produced non-vegetative food waste. They also include other materials the department determines pose a low level of risk from hazardous substances and a higher level of risk from physical contaminants and human pathogens compared to type 1 and 2 feedstocks.

(~~34~~36) "Financial Assurance" means a plan for setting aside financial resources or otherwise assuring that adequate funds are available to properly close and to maintain and monitor a ~~land~~ disposal site after the site is closed according to the requirements of a permit issued by the ~~Department~~department.

(~~35)~~ (37) "Floodplain" means the lowland and relatively flat areas adjoining inland and coastal waters that are inundated by the base flood.

(~~36)~~ (38) "Gravel Pit" means an excavation in an alluvial area from which sand or gravel has been or is being mined.

(~~37)~~ "Green Feedstocks" are materials used to produce a compost. Green feedstocks are ~~low in a) substances that pose a present or future hazard to human health or the environment and b) low in and unlikely to support human pathogens. Green feedstocks include but are not limited to: yard debris, animal manures, wood waste (as defined in OAR 340-093-0030(94)), vegetative food waste, produce waste, vegetative restaurant waste, vegetative food processor by-products and crop residue. Green feedstocks may also include other materials that can be shown to DEQ by the composter to be low in substances that pose a present or future hazard to human health or the environment and low in and unlikely to support human pathogens. This term is not intended to include materials fed to animals and not used for composting.~~

(~~38)~~ (39) "Groundwater" means water that occurs beneath the land surface in the zone(s) of saturation.

(~~39)~~(40) "Hazardous Substance" means any substance defined as a hazardous substance pursuant to Section 101(14) of the federal Comprehensive Environmental Response, Compensation and Liability Act, as amended, 42 U.S.C. 9601 et seq.; oil, as defined in ORS 465.200; and any substance designated by the Commission under ORS 465.400.

(~~40)~~ (41) "Hazardous Waste" means discarded, useless or unwanted materials or residues and other wastes that are defined as hazardous waste pursuant to ORS 466.005.

(~~41)~~(42) "Heat-Treated" means a process of drying or treating sewage sludge where there is an exposure of all portions of the sludge to high temperatures for a sufficient time to kill all pathogenic organisms.

(~~42)~~(43) "Home composting" means composting operated and controlled by the owner or person in control of a single family dwelling unit and used to ~~dispose of~~compost residential food waste and yard debris produced within the dwelling.

(~~43)~~(44) "Incinerator" means any device used for the reduction of combustible solid wastes by burning under conditions of controlled airflow and temperature.

~~(44)~~(45) "Industrial Solid Waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under ORS chapters 465 and 466 or under Subtitle C of the federal Resource Conservation and Recovery Act. Such waste may include, but is not limited to, waste resulting from the following processes: Electric power generation; fertilizer/agricultural chemicals; food and related products/byproducts; inorganic chemicals; iron and steel manufacturing; leather and leather products; nonferrous metals manufacturing/foundries; organic chemicals; plastics and resins manufacturing; pulp and paper industry; rubber and miscellaneous plastic products; stone, glass, clay and concrete products; textile manufacturing; transportation equipment; water treatment; and timber products manufacturing. This term does not include construction/demolition waste; municipal solid waste from manufacturing or industrial facilities such as office or "lunch room" waste; or packaging material for products delivered to the generator.

~~(45)~~(46) "Industrial Waste Landfill" means a landfill that receives only a specific type or combination of industrial waste.

~~(46)~~(47) "Inert" means containing only constituents that are biologically and chemically inactive and that, when exposed to biodegradation and/or leaching, will not adversely impact the waters of the state or public health.

~~(47)~~(48) "Infectious Waste" means biological waste, cultures and stocks, pathological waste, and sharps; as defined in ORS 459.386.

~~(48)~~(49) ~~"Institutional Composting" means the composting of green feedstocks generated~~ on-site ~~from the~~ a ~~facility's own activities. It may also include supplemental feedstocks. Feedstocks must be composted on-site, the compost produced must be utilized within the contiguous boundaries of the institution and not offered for sale or use off-site. Institutional composting includes but is not limited to~~composting at facilities such as~~: parks, apartments, universities, schools, hospitals, golf courses and industrial parks.~~

(49) "Land Application Unit" means a disposal site where sludges or other solid wastes are applied onto or incorporated into the soil surface for agricultural purposes or for treatment and disposal.

(50) "Land Disposal Site" means a disposal site in which the method of disposing of solid waste is by landfill, dump, waste pile, pit, pond, lagoon or land application.

(51) "Landfill" means a facility for the disposal of solid waste involving the placement of solid waste on or beneath the land surface.

(52) "Leachate" means liquid that has come into direct contact with solid waste and contains dissolved, miscible and/or suspended contaminants as a result of such contact.

(53) "Liabilities" means probable future sacrifices of economic benefits arising from present obligations to transfer assets or provide services to other entities in the future as a result of past transactions or events.

(54) Local Government Unit" means a city, county, Metropolitan Service District formed under ORS chapter 268, sanitary district or sanitary authority formed under ORS chapter 450, county service district formed under ORS chapter 451, regional air quality control authority formed under ORS 468A.100 to 468A.130 and 468A.140 to 468A.175 or any other local government unit responsible for solid waste management.

(55) "Low-Risk Disposal Site" means a disposal site which, based upon its size, site location, and waste characteristics, the ~~Department~~ department determines to be unlikely to adversely impact the waters of the State or public health.

(56) "Material Recovery" means any process of obtaining from solid waste, by pre-segregation or otherwise, materials which still have useful physical or chemical properties and can be reused, recycled or composted for some purpose.

(57) "Material Recovery Facility" means a solid waste management facility that separates materials for the purposes of recycling from an incoming mixed solid waste stream by using manual and/or mechanical methods, or a facility at which previously separated recyclables are collected.

(58) "Medical Waste" means solid waste that is generated as a result of patient diagnosis, treatment, or immunization of human beings or animals.

(59) "Monofill" means a landfill or landfill cell into which only one type of waste may be placed.

(60) "Municipal Solid Waste Landfill" means a discrete area of land or an excavation that receives domestic solid waste, and that is not a land application unit, surface impoundment, injection well, or waste pile, as those terms are defined under **§257.2 of 40 CFR**, Part 257. It may also receive other types of wastes such as nonhazardous sludge, hazardous waste from conditionally exempt small quantity generators, construction and demolition waste and industrial solid waste.

(61)"Net Working Capital" means current assets minus current liabilities.

(62) "Net Worth" means total assets minus total liabilities and is equivalent to owner's equity.

~~(63)~~ "Non~~-green Feedstocks" are materials used to produce a compost. Non-green feedstocks are high in:~~

~~(a)~~ Substances that pose a present or future hazard to human health or the environment; ~~and~~

~~(b)~~ High in and likely to support human pathogens. Non~~-green feedstocks include but are not limited to: animal parts and by-products, mixed materials containing animal parts or by-products, dead animals and municipal solid waste. This term is not intended to include materials fed to animals and not used for composting.~~

(6~~3~~4)"Pathological Waste" means biopsy materials and all human tissues, anatomical parts that emanate from surgery, obstetrical procedures, autopsy and laboratory procedures and animal carcasses exposed to pathogens in research and the bedding and other waste from such animals. "Pathological waste" does not include teeth or formaldehyde or other preservative agents.

(6~~4~~5)"Permit" means a document issued by the ~~Department~~ department which by its conditions may authorize the permittee to construct, install, modify, operate or close a disposal site in accordance with specified limitations.

(6~~5~~6)"Permit Action" means the issuance, modification, renewal or revocation by the ~~Department~~ department of a permit.

(6~~6~~7)"Person" means the United States, the state or a public or private corporation, local government unit, public agency, individual, partnership, association, firm, trust, estate or any other legal entity.

(6~~7~~8)"Processing of Wastes" means any technology designed to change the physical form or chemical content of solid waste including, but not limited to, baling, composting, classifying, hydropulping, incinerating and shredding.

(6~~8~~9)"Public Waters" or "Waters of the State" include lakes, bays, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Pacific Ocean within the territorial limits of the State of Oregon and all other bodies of surface or underground waters, natural or artificial, inland or coastal, fresh or salt, public or private (except those private waters which do not combine or effect a junction with natural surface or underground waters), which are wholly or partially within or bordering the state or within its jurisdiction.

(6~~9~~70) "Putrescible Waste" means solid waste containing organic material that can be rapidly decomposed by microorganisms, and which may give rise to foul smelling, offensive products during such decomposition or which is capable of attracting or providing food for birds and potential disease vectors such as rodents and flies.

(7~~0~~1)"Recycling" means any process by which solid waste materials are transformed into new products in such a manner that the original products may lose their identity.

(7~~1~~2)"Regional Disposal Site" means a disposal site that receives, or a proposed disposal site that is designed to receive more than 75,000 tons of solid waste a year from outside the immediate service area in which the disposal site is located. As used in this section, "immediate service area" means the county boundary of all counties except a county that

1 is within the boundary of the Metropolitan Service District. For a county within the 2 Metropolitan Service District, "immediate service area" means that Metropolitan Service 3 District boundary.

4 (723) "Release" has the meaning given in ORS 465.200(14).

5 (734) "Resource Recovery" means the process of obtaining useful material or energy 6 from solid waste and includes energy recovery, material recovery and recycling.

7 (745) "Reuse" means the return of a commodity into the economic stream for use in the 8 same kind of application as before without change in its identity.

9 (756) "Salvage" means the controlled removal of reusable, recyclable or otherwise 10 recoverable materials from solid wastes at a solid waste disposal site.

11 (767) "Sensitive Aquifer" means any unconfined or semiconfined aquifer that is 12 hydraulically connected to a water table aquifer, and where flow could occur between the 13 aquifers due to either natural gradients or induced gradients resulting from pumpage.

14 (778) "Septage" means the pumpings from septic tanks, cesspools, holding tanks, 15 chemical toilets and other sewage sludges not derived at sewage treatment plants.

16 (789) "Sharps" means needles, IV tubing with needles attached, scalpel blades, lancets, 17 glass tubes that could be broken during handling and syringes that have been removed 18 from their original sterile containers.

19 (7980) "Sludge" means any solid or semi-solid waste and associated supernatant 20 generated from a municipal, commercial, or industrial wastewater treatment plant, water 21 supply treatment plant or air pollution control facility or any other such waste having 22 similar characteristics and effects.

23 (801) "Sole Source Aquifer" means the only available aquifer, in any given geographic 24 area, containing potable groundwater with sufficient yields to supply domestic or 25 municipal water wells.

26 (812) "Solid Waste" means all useless or discarded putrescible and non-putrescible 27 materials, including but not limited to garbage, rubbish, refuse, ashes, paper and 28 cardboard, sewage sludge, septic tank and cesspool pumpings or other sludge, useless or 29 discarded commercial, industrial, demolition and construction materials, discarded or 30 abandoned vehicles or parts thereof, discarded home and industrial appliances, manure, 31 vegetable or animal solid and semi-solid materials, dead animals and infectious waste. 32 The term does not include:

33 (a) Hazardous waste as defined in ORS 466.005;

(b) Materials used for fertilizer, soil conditioning, humus restoration, or for other productive purposes or which are salvageable for these purposes and are used on land in agricultural operations and the growing or harvesting of crops and the raising of fowls or animals, provided the materials are used at or below agronomic application rates.

(8~~23~~) "Solid Waste Boundary" means the outermost perimeter (on the horizontal plane) of the solid waste at a landfill as it would exist at completion of the disposal activity.

(8~~34~~) "Source Separate" means that the person who last uses recyclable materials separates the recyclable material from solid waste.

~~(85) "Supplemental Feedstock" are green~~ Types 1 and 2 ~~feedstocks from off-farm or off-site used to produce a compost at an agricultural or institutional operation, are the minimum amount necessary to allow composting of~~ feedstocks generated ~~on-farm and~~ or ~~on-site feedstocks~~, ~~and can be shown by the composter to DEQ~~ the department ~~to be necessary to maintain~~ support ~~porosity, moisture level or carbon to nitrogen ratio in the farm or institution's composting operation. The goal of these feedstocks is to supplement those feedstocks generated on the farm or at the institution so that composting may occur.~~

(8~~46~~)"Tangible Net Worth" means the tangible assets that remain after deducting liabilities; such assets would not include intangibles such as goodwill and rights to patents or royalties.

(8~~57~~)"Third Party Costs" mean the costs of hiring a third party to conduct required closure, post-closure or corrective action activities.

(8~~68~~) "Transfer Station" means a fixed or mobile facility other than a collection vehicle where solid waste is taken from a smaller collection vehicle and placed in a larger transportation unit for transport to a final disposal location.

(8~~79~~) "Treatment" or "Treatment Facility" means any method, technique, or process designed to change the physical, chemical, or biological character or composition of any solid waste. It includes but is not limited to soil remediation facilities. It does not include "composting" as defined in section (18) of this rule, "material recovery" as defined in section (56) of this rule, nor does it apply to a "material recovery facility" as defined in section (57) of this rule.

(88~~90~~) "Underground Drinking Water Source" means an aquifer supplying or likely to supply drinking water for human consumption.

(89~~91~~)"Vector" means any insect, rodent or other animal capable of transmitting, directly or indirectly, infectious diseases to humans or from one person or animal to another.

(9~~02~~) "Vegetative" means feedstocks used for composting that are derived from plants including but not limited to: fruit and vegetable peelings or parts, grains, coffee grounds,

crop residue, waxed cardboard and uncoated paper products. Vegetative material does not include oil, grease, or dairy products such as milk, mayonnaise or ice cream.

(913) "Vermicomposting" means the controlled and managed process by which live worms convert solid waste into dark, fertile, granular excrement.

(924) "Vermiculture" means the raising of earth worms for the purpose of collecting castings for composting or enhancement of a growing medium.

(93)"Water Table Aquifer" means an unconfined aquifer in which the water table forms the upper boundary of the aquifer. The water table is typically below the upper boundary of the geologic strata containing the water, the pressure head in the aquifer is zero and elevation head equals the total head.

(94) "Wellhead protection area" means the surface and subsurface area surrounding a water well, spring or wellfield, supplying a public water system, through which contaminants are reasonably likely to move toward and reach that water well, spring, or wellfield. A public water system is a system supplying water for human consumption that has four or more service connections or supplies water to a public or commercial establishment which operates a total of at least 60 days per year, and which is used by 10 or more individuals per day.

(95) "Wood waste" means chemically untreated wood pieces or particles generated from processes commonly used in the timber products industry. Such materials include but are not limited to sawdust, chips, shavings, stumps, bark, hog-fuel and log sort yard waste, but do not include wood pieces or particles containing or treated with chemical additives, glue resin, ~~or~~ chemical preservatives.

(96) "Wood waste Landfill" means a landfill that receives primarily wood waste.

(97) "Zone of Saturation" means a three-dimensional section of the soil or rock in which all open spaces are filled with groundwater. The thickness and extent of a saturated zone may vary seasonally or periodically in response to changes in the rate or amount of groundwater recharge, discharge or withdrawal.

NOTE: Definition updated to be consistent with current Hazardous Waste statute.

[Publications: The publications referenced in this rule are available from the agency.]

Stat. Auth.: ORS 459.045 & ORS 468.020 Stats. Implemented: ORS 459 & ORS 459A
Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84; DEQ 18-1988, f. & cert. ef. 7-13-88 (and corrected 2-3-89); DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 24-1990, f. & cert. ef. 7-6-90; DEQ 5-1993, f. & cert. ef. 3-1093; Renumbered from 340-061-0010; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 9-1996, f.

1 & cert. ef. 7-10-96; DEQ 17-1997, f. & cert. ef. 8-14-97; DEQ 27-1998, f. & cert. ef. 112 13-98; DEQ 15-2000, f. & cert. ef. 10-11-00

3 **340-093-0040**

4 **Prohibited Disposal**

(1) No person shall dispose of or authorize the disposal of solid waste except at a solid 6 waste disposal site permitted by the Department to receive that waste, or at a class of 7 disposal site specifically exempted by OAR 340-093-0050(3) from the requirement to 8 obtain a solid waste permit.

9 (2) Wastes prohibited from disposal at solid waste disposal sites:

(a) Hazardous Wastes. Wastes defined as hazardous wastes must be managed in 11 accordance with ORS 466.005 et seq. and applicable regulations;

12 (b) Hazardous Wastes from Other States. Wastes which are hazardous under the law of 13 the state of origin shall not be managed at a solid waste disposal site when transported to 14 Oregon. Such wastes may be managed at a hazardous waste facility in Oregon if the facility is authorized to accept the wastes pursuant to ORS 466.005 et seq. and applicable 16 regulations.

17 (3) No person shall dispose of and no disposal site shall knowingly accept for disposal at 18 a solid waste disposal site:

19 (a) Used oil as defined in ORS 468.850(5), including liquid used oil and used oil purposely mixed with other materials for the purpose of disposal, but not including 21 cleanup materials from incidental or accidental spills where the used oil spilled cannot 22 feasibly be recovered as liquid oil;

23 (b) Discarded or abandoned vehicles;

24 (c) Discarded large metal-jacketed residential, commercial or industrial appliances such as refrigerators, washers, stoves and water heaters;

26 (d) Whole tires, except as provided in OAR 340-064-0052. Tires processed to meet the 27 criteria in OAR 340-064-0052 may be landfilled. For purposes of this subsection, "tire" 28 shall have the meaning given in OAR 340-064-0010(26);

29 (e) Lead-acid batteries.

(4) Notwithstanding any other provision of law relating to solid waste disposal, if the 31 state of origin prohibits or restricts the disposal of any kind of solid waste within the state 32 of origin, such prohibition or restriction also shall apply to the disposal of the out-of-state 33 solid waste in Oregon.

Stat. Auth.: ORS 459.005 - ORS 459.418, ORS 459.045(1), ORS 459.045(3), ORS 459A.100 - ORS 459A.120, ORS 459.235(2), ORS 459.420 & ORS 468.065 Stats. Implemented: ORS 459.005(8) & ORS 459.205(1) Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 30-1988(Temp), f. & cert. ef. 11-17-88; DEQ 6-1989, f. 4-24-89, cert. ef. 5-4-89; DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 24-1990, f. & cert. ef. 7-6-90; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0060; DEQ 17-1997, f. & cert. ef. 8-14-97

340-093-0050

Permit Required

(1) Except as provided by section (3) of this rule, no person shall establish, operate, maintain or substantially alter, expand, improve or close a disposal site, and no person shall change the method or type of disposal at a disposal site, until the person owning or controlling the disposal site obtains a permit therefore from the ~~Department~~department.

(2) Persons owning or controlling the following classes of disposal sites ~~shall~~ must abide by the requirements in the following rules:

(a) Municipal solid waste landfills ~~shall~~ must abide by OAR 340, Division 94 "Municipal Solid Waste Landfills";

(b) Industrial Solid Waste Landfills, Construction and Demolition Landfills, Wood Waste Landfills and other facilities not listed in OAR 340, Division 96 ~~shall~~must abide by OAR 340, Division 95 "Land Disposal Sites Other Than Municipal Solid Waste Landfills";

(c) Energy recovery facilities and incinerators receiving domestic solid waste ~~shall~~must abide by OAR 340, Division 96 "Special Rules Pertaining to Incineration";

(d) Composting facilities ~~except as excluded in OAR 340-093-0050(3)(d) shall~~ must abide by OAR 340-096-0060~~20~~ through OAR 340-096-0140: ~~340-096-0024 and 340-096-0028~~ "Special Rules Pertaining to Composting."

(e) Land used for deposit, spreading, lagooning or disposal of sewage sludge, septage and other sludges ~~shall~~must abide by OAR 340-096-0030 "Special Rules Pertaining to Sludge and Land Application Disposal Sites";

(f) Transfer stations and Material Recovery Facilities ~~shall~~must abide by OAR 340-096-0040 "Transfer Stations and Material Recovery Facilities";

(g) Petroleum contaminated soil remediation facilities and all other solid waste treatment facilities ~~shall~~must abide by OAR 340-096-0050 "Solid Waste Treatment Facilities."

(3) Persons owning or controlling the following classes of disposal sites are specifically exempted from the above requirements to obtain a permit under OAR Chapter 340,

Divisions 93 through 97, but ~~shall~~must comply with all other provisions of OAR Chapter 340, Divisions 93 through 97 and other applicable laws, rules, and regulations regarding solid waste disposal:

(a) A facility authorized by a permit issued under ORS 466.005 to 466.385 to store, treat or dispose of both hazardous waste and solid waste;

(b) Disposal sites, facilities or disposal operations operated pursuant to a permit issued under ORS 468B. 050 if all applicable requirements in OAR chapter 340, divisions 93 through 97 have been met;

(c) A land disposal site used exclusively for the disposal of clean fill, unless the materials have been contaminated such that the ~~Department~~ department determines that their nature, amount or location may create an adverse impact on groundwater, surface water or public health or safety;

NOTE: Such a landfill may require a permit from the Oregon Division of State Lands. A person wishing to obtain a permit exemption for an inert waste not specifically mentioned in this subsection may submit a request to the ~~Department~~ department with such information as the ~~Department~~ department may require to evaluate the request for exemption, pursuant to OAR 340-093-0080.

~~(d)~~ Composting facilities. The following are exempted from the ~~above requirements to obtain a permit~~ .

~~(A) Sites, facilities or agricultural composting operations utilizing an amount of green or non-green feedstocks less than or equal to 20 tons in a calendar year~~

~~(B)~~ Agricultural ~~composting operations that are~~

~~(i)~~ Composting green feedstocks generated and composted at the ~~same agricultural operation; and~~

~~(I)~~ All the compost produced is used at the same agricultural operation at an agronovic ~~rate or less; or~~

~~(II)~~ If any of the compost produced is sent off~~-farm, the operation is described in a composting management plan on file at the Oregon Department of Agriculture. The composting management plan must be approved by the Oregon Department of Agriculture and implemented by the composter for this exclusion to apply.~~

~~(ii)~~ composting non~~-green feedstocks:~~

~~(I)~~ Generated and composted at the same agricultural ~~operation; and~~

~~(II)~~ The operation is described in a composting management plan on file at the Oregon ~~Department of Agriculture. The composting management plan must be approved by the Oregon Department of Agriculture and implemented by the composter in order for this exclusion to apply.~~

~~(C) Production of silage on a farm for animal feed;~~

~~(D)~~ Home composting, unless the Department determines there is an adverse impact on to ~~ground water, surface water or public health or safety;~~

~~(E)~~ Institutional ~~composting, provided there is no adverse impact on ground water, surface water or public health or safety;~~

~~(F)~~ A site or facility that accepts and reloads only yard debris and wood waste (as ~~defined in OAR 340-093-0030(94)) or transports those materials to another location, providing no composting occurs at the site.~~

(de) A Site or facility utilizing any amount of sewage sludge or biosolids under a valid water quality permit, pursuant to ORS 468B.050;

(e~~f~~) Facilities which receive only source separated materials for purposes of material recovery, except when the ~~Department~~ department determines that the nature, amount or location of the materials is such that they constitute a potential threat of adverse impact on the waters of the state or public health~~,~~;

(f~~g~~) A site used to transfer a container, including but not limited to a shipping container, or other vehicle holding solid waste from one mode of transportation to another (such as barge to truck); if:

(A) The container or vehicle is not available for direct use by the general public;

(B) The waste is not removed from the original container or vehicle; and

(C) The original container or vehicle does not stay in one location longer than 72 hours, unless otherwise authorized by the ~~Department~~department.

(4) The ~~Department~~ department may, in accordance with a specific permit containing a compliance schedule, grant reasonable time for solid waste disposal sites or facilities to comply with OAR Chapter 340, Divisions 93 through 97.

(5) If it is determined by the ~~Department~~ department that a proposed or existing disposal site is not likely to create a public nuisance, health hazard, air or water pollution or other environmental problem, the ~~Department~~ department may waive any or all requirements of OAR 340-093~~0~~-0~~0~~70, 340-093-0130, 340-093-0140, 340-093-0150, 340-094-0060(2) and 340-095-0030(2) and issue a letter authorization in accordance with OAR 340-0930060.

(6) Each person who is required by sections (1) and (5) of this rule to obtain a permit ~~shall~~must:

(a) Make prompt application to the ~~Department~~ department therefore;

(b) Fulfill each and every term and condition of any permit issued by the ~~Department~~ department to such person;

(c) Comply with OAR Chapter 340, Divisions 93 through 97;

(d) Comply with the ~~Department's~~ department's requirements for recording, reporting, monitoring, entry, inspection, and sampling, and make no false statements, representations, or certifications in any form, notice, report, or document required thereby;

(e) Allow the ~~Department~~ department or an authorized governmental agency to enter the property under permit at reasonable times to inspect and monitor the site and records as authorized by ORS 459.385 and 459.272.

(7) Failure to conduct solid waste disposal according to the conditions, limitations, or terms of a permit or OAR Chapter 340, Divisions 93 through 97, or failure to obtain a permit is a violation of OAR Chapter 340, Divisions 93 through 97 and ~~shall~~mustmay be cause for the assessment of civil penalties for each violation as provided in OAR Chapter 340, Division 12 or for any other enforcement action provided by law. Each and every day that a violation occurs is considered a separate violation and may be the subject of separate penalties.

Stat. Auth.: ORS 459A.025, ORS 459.045 & ORS 468.020 Stats. Implemented: ORS 459.205, ORS 459.215 & ORS 459.225 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84; DEQ 14-1984, f. & ef. 8-8-84; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-61-020; DEQ 10-1994, f. & cert. ef. 5-4-94;DEQ 2-1995, f. & cert. ef. 1-10-95; DEQ 17-1997, f. & cert. ef. 8-14-97; DEQ 27-1998, f. & cert. ef. 11-1398

340-093-0060

Letter Authorizations

Pursuant to OAR 340-093-0050(5), the Department may authorize the short-term operation of a disposal site by issuing a permit called "letter authorization" subject to the following:

(1) A letter authorization may be issued only on the basis of a complete written application which has been approved by the Department. Applications for letter authorizations shall be complete only if they contain the following items:

1 (a) The quantity and types of material to be disposed; 2 (b) A discussion of the need and justification for the proposed project; 3 (c) The expected amount of time which will be required to complete the project; 4 (d) The methods proposed to be used to insure safe and proper disposal of solid waste; 5 (e) The location of the proposed disposal site; 6 (f) A statement of approval from the property owner or person in control of the property, 7 if other than the applicant; 8 (g) Written verification from the local planning department that the proposal is 9 compatible with the acknowledged local comprehensive plan and zoning requirements or 10 the Land Conservation and Development Commission's Statewide Planning Goals; 11 (h) Any other relevant information which the Department may require. 12 (2) Upon receipt of a complete written application the Department may approve the 13 application if it is satisfied that: 14 (a) The applicant has demonstrated sufficient need and justification for the proposal; 15 (b) The proposed project is not likely to cause a public nuisance, health hazard, air or 16 water pollution or other environmental problem. 17 (3) The Department may revoke or suspend a letter authorization on any of the following 18 grounds: 19 (a) A material misrepresentation or false statement in the application; 20 (b) Any relevant violation of any statute, rule, order, permit, ordinance, judgment or 21 decree. 22 (4) The Department may issue letter authorizations for periods not to exceed six months. 23 If circumstances have prevented the holder of a letter authorization from completing the 24 action allowed under the letter authorization, he or she may request a one-time six-month 25 renewal from the Department. Further renewals are not allowed. A letter authorization 26 shall not be used for any disposal actions requiring longer than a total of one year to 27 complete; such actions are subject to a regular solid waste land disposal permit. 28 Stat. Auth.: ORS 459 29 Stats. Implemented: ORS 459.215 30 Hist.: DEQ 26-1981, f. & ef. 9-8-81; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered

from 340-061-0027; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & cert. ef. 8-14-97

340-093-0070

Applications for Permits

(1) Any person wishing to obtain a new, modified, or renewal permit from the ~~Department~~ department must submit a written application on a form provided by the ~~Department~~department. The ~~Department~~ department must receive renewal applications at least 180 days before a permit is needed. All other applications must be received 60 days before a permit is needed. All application forms must be completed in full, signed by the applicant or the applicant's legally authorized representative, and accompanied by the specified number of copies of all required exhibits. The name of the applicant must be the legal name of the owner of the facility or the owner's agent or the lessee responsible for the operation and maintenance of the facility.

(2) The ~~Department~~ department will accept applications for a permit~~, including those required for a composting facility general permit,~~ only when complete, as detailed in section (3) ~~and (4)~~ of this rule. Within 45 days after receipt of an application, the ~~Department~~ department will conduct a preliminar~~ily~~y review of the application to determine the adequacy of the information submitted. Failure to complete this review within 45 days does not preclude the ~~Department~~ department from later requesting further information from the applicant as provided in this section.

(a) If the ~~Department~~ department determines that additional information is needed it will promptly request the needed information from the applicant. The application will be considered to be withdrawn if the applicant fails to submit the requested information within 90 days of the request or such other time as the ~~Department~~ department establishes in writing.

(b) If additional measures are necessary to gather facts regarding the application, the ~~Department~~ department will notify the applicant that such measures will be instituted, and the timetable and procedures to be followed. The application will be considered to be withdrawn if the applicant fails to comply with these additional measures.

~~(3) General permit: Composting facilities as defined in OAR 340-096-0024(2) are considered to be "lower risk disposal sites" and thus subject to general permits. General permits are permits and permittees shall comply with all pertinent rules except subsections (4)(c) and (f) of this rule, and the requirements of OAR 340-093-0150, 340093-0210, 340-094-0060(2) and 340-095-0030(2). In order to comply with requirements, persons applying for a general permit must submit to DEQ items listed in (4)(a), (b), (c), and (d) of this rule prior to receiving a permit. To comply with the remainder of all pertinent rules, these composting facilities must have procedures in place and~~

~~documentation at the composting site available for review and acceptance by DEQ that shows all requirements have been met. A composting facility for which a general permit has been issued, but DEQ determines has inadequate or incomplete plans, specifications, operations and maintenance manuals, operational procedures, or other requirements, may be required to revise documents or operational procedures to comply with current technological practices and pertinent rules of the Department.~~

~~(~~4~~3~~) Applications for a ~~registration or~~ permit ~~shall~~will be complete only if they:

(a) Are submitted in triplicate on forms provided by the ~~Department~~department, are accompanied by all required exhibits using paper with recycled content with copy printed on both sides of the paper whenever possible, follow the organizational format and include the level of informational detail required by the ~~Department~~department, and are signed by the property owner or person in control of the premises;

(b) Include written recommendations of the local government unit or units having jurisdiction with respect to new or existing disposal sites, or alterations, expansions, improvements or changes in method or type of disposal at new or existing disposal sites. Such recommendations ~~shall~~must include, but not be limited to, a statement of compatibility with the acknowledged local comprehensive plan and zoning requirements or the Land Conservation and Development Commission's Statewide Planning Goals;

(c) Identify any other known or anticipated permits from the ~~Department~~ department or other governmental agencies. If previously applied for, include a copy of such permit application and if granted, a copy of such permit;

(d) Include payment of application fees as required by OAR 340-097-0110 and 340-097-0120;

(e) Include a site characterization report(s) prepared in accordance with OAR 340-093-0130, to establish a new disposal site or to substantially alter, expand or improve a disposal site or to make a change in the method or type of disposal at a disposal site, unless the requirements of said site characterization report(s) have been met by other prior submittals;

(f) Include detailed plans and specifications as required by OAR 340-093-0140;

(g) For a new land disposal site:

(A) Include a written closure plan that describes the steps necessary to close all land disposal units at any point during their active life pursuant to OAR 340-094-0110 to 340094-0120 or OAR 340-095-0050 to 340-095-0060; and

(B) Provide evidence of financial assurance for the costs of closure of the land disposal site and for post-closure maintenance, of the land disposal site, pursuant to OAR 340

094-0140 or OAR 340-095-0090, unless the ~~Department~~ department exempts a non-municipal land disposal site from this requirement pursuant to OAR 340-095-0050(3).

(h) Include any other information the ~~Department~~ department may deem necessary to determine whether the proposed disposal site and the operation thereof will comply with all applicable rules of the ~~Department~~department.

(~~5~~4) If the ~~Department~~ department determines that a disposal site is a "low-risk disposal site" or is not likely to adversely impact the waters of the State or public health, the ~~Department~~ department may waive any of the requirements of subsections (~~4~~3)(e) and (f) of this rule, OAR 340-093-0150, 340-094-0060(2) and 340-095-0030(2). In making this judgment, the ~~Department~~ department may consider the size and location of the disposal site, the volume and types of waste received and any other relevant factor. The applicant must submit any information the ~~Department~~ department deems necessary to determine that the proposed disposal site and site operation will comply with all pertinent rules of the ~~Department~~department.

(~~6~~5) If a local public hearing regarding a proposed disposal site has not been held and if, in the judgment of the ~~Department~~department, there is sufficient public concern regarding the proposed disposal site, the ~~Department~~ department may, as a condition of receiving and acting upon an application, require that such a hearing be held by the county board of commissioners or county court or other local government agency responsible for solid waste management, for the purpose of informing and receiving information from the public.

(~~7~~6) Permit ~~or registration~~ modifications and renewals:

(a) Permit Modification: An application for a permit modification is required for:

(~~i~~A) The sale or exchange of the activity or facility; or

(~~ii~~B) Any change in the nature of the activities or operations from those of the last application including modification or expansion of the disposal site or a change in the method or type of disposal. Any application that would substantially change the scope or operations of the disposal site must include written recommendations from the local government unit as required in subsection (~~4~~3)(b) of this rule.

(b) Permit Renewal: An application for a permit renewal is required if a permittee intends to continue operation beyond the permitted period. A complete renewal application must be filed at least 180 days before the existing permit expires.

(~~i~~A) A complete application for renewal must be made in the form required by the ~~Department~~ department and include the information required by this Division and any other information required by the ~~Department~~department.

(~~ii~~B) Any application for renewal which would substantially change the scope of operations of the disposal site must include written recommendations from the local government unit as required in subsection (~~4~~3)(b) of this rule.

(~~iii~~ C) If a completed application for renewal of a permit is filed with the ~~Department~~ department in a timely manner before the expiration date of the permit, the permit does not expire until the ~~Department~~ department takes final action on the renewal application.

(~~iv~~ D) If a completed application for renewal of a permit is not filed with the ~~Department~~ department in a timely manner before the expiration date of the permit, the ~~Department~~ department may require the permittee to close the site and apply for a closure permit, pursuant to OAR 340-094-0100 or 340-095-0050.

(~~8~~7) Permits extended under subsection (~~7~~6) of this rule remain fully effective and enforceable until the effective date of the new permit.

Stat. Auth.: ORS 459 Stats. Implemented: ORS 459.235 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 2-1984, f. & ef. 1-16-84; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0025; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & cert. ef. 8-14-97; DEQ 15-2000, f. & cert. ef. 10-11-00

340-093-0080

Variances and Permit Exemptions

(1) Variances. The Commission may by specific written variance waive certain requirements of OAR Chapter 340, Divisions 93 through 97 when circumstances of the solid waste disposal site location, operating procedures, and/or other conditions indicate that the purpose and intent of OAR Chapter 340, Divisions 93 through 97 can be achieved without strict adherence to all of the requirements.

(2) Permit exemptions. Pursuant to OAR 340-093-0050(3), a person wishing to obtain an exemption from the requirement to obtain a solid waste permit for disposal of an inert waste in specified locations may submit a request to the Department. The applicant must demonstrate that the waste is substantially the same as "clean fill." The request ~~shall~~must include but not be limited to the following information:

(a) The exact location (including a map) at which the waste is to be disposed of and a description of the surrounding area;

(b) The monthly rate of disposal;

(c) A copy of the Material Safety Data Sheet (or equivalent, if a MSDS is not available) for all applicable raw materials used at the facility generating the waste;

1 (d) A description of the process generating the waste and how that process fits into the 2 overall operation of the facility;

3 (e) Documentation that the waste is not hazardous as defined in OAR Chapter 340, 4 Division 101. The procedure for making a hazardous waste determination is in OAR 340102-0011;

6 (f) A demonstration that the waste is inert, stable, non-putrescible, and physically similar 7 to soil, rock, concrete, brick, building block, tile, or asphalt paving;

8 (g) A demonstration that the waste will not discharge constituents which would adversely 9 impact the waters of the state or public health.

Stat. Auth.: ORS 459 11 Stats. Implemented: ORS 459.225 12 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered 13 from 340-61-080; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & cert. ef. 8-1414 97

340-093-0090

16 **Preliminary Approval**

17 (1) The Department may issue written preliminary approval to any applicant for a Solid 18 Waste Disposal Permit, prior to submission of detailed engineering plans and 19 specifications, based on the material submitted in a site characterization report(s) in accordance with the requirements of OAR 340-093-0070.

21 (2) The purpose of the preliminary review and approval process is to inform the applicant 22 of the Department's concerns, if any, regarding the proposal and to provide guidance in 23 the development of the detailed plans and specifications required to complete the permit 24 application. Receipt of preliminary approval does not grant the applicant any right to begin construction or operation of a disposal site.

26 (3) Request for preliminary approval shall be made to the Department in writing. Within 27 45 days of receipt of such request, the Department shall either grant or deny preliminary 28 approval or request additional information.

29 (4) Granting of preliminary approval shall not prevent the Department from denying or conditionally approving a completed permit application.

31 (5) If the Department denies preliminary approval, it shall clearly state the reasons for 32 denial. Failure to receive preliminary approval shall not prevent an applicant from 33 completing a permit application. Any application completed after denial of preliminary 34 approval shall specifically address those concerns listed in the Department's letter of denial.

Stat. Auth.: ORS 459 Stats. Implemented: ORS 459.245 Hist.: DEQ 26-1981, f. & ef. 9-8-81; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0031; DEQ 10-1994, f. & cert. ef. 5-4-94

340-093-0100

Public Notice and Participation Requirements Regarding Permit Actions

(1) The ~~Department~~ department categorized permit actions according to environmental and public health significance. Category I represents permit actions with low environmental and public health significance and less public notice and opportunity for public participation. Category IV represents permit actions with potentially high environmental and public health significance, and the greatest level of public notice and opportunity for participation.

(2) OAR 340-093-0105 classifieds permits as Category I through Category IV. If a permit action is uncategorized, the permit action will be processed under Category III. The following describes the public notice and participation requirements for each category:

(a) Category I -- No public notice or opportunity for public participation;

(b) Category II -- The ~~Department~~ department will provide public notice of the proposed permit action and a minimum of 30 days to submit written comments.

(c) Category III -- The ~~Department~~ department will provide public notice of the proposed permit action and a minimum of 35 days to submit written comments. The ~~Department~~ department will provide a minimum of 30 days notice for a hearing if one is scheduled. The ~~Department~~ department will schedule a hearing to allow interested persons to submit oral or written comments if:

(~~i~~ A) Within 14 days of the mailing of the notice, the ~~Department~~ department receives written requests from ten persons, or from an organization representing at least ten persons, for a hearing, or

(~~ii~~ B) The ~~Department~~ department determines that a hearing is necessary.

(d) Category IV -- Once an application is considered complete under OAR 340-093-0070, the ~~Department~~ department will:

(~~i~~ A) Provide public notice of the receipt of a completed application and requested permitting action; and

(~~ii~~ B) Schedule an informational meeting within the community where the facility will be or is located and provide public notice of the meeting. The ~~Department~~ department will consider any information gathered in this process when it drafts the proposed permit.

1 (~~iii~~ C) Once a draft permit is completed, provide public notice of the proposed permit and 2 a minimum of 40 days to submit written comments.

3 (~~iv~~ D) Schedule a public hearing to allow interested persons to submit oral or written 4 comments and a minimum of 30 days notice for the hearing.

5
(3) The ~~Department~~ department may move a permit action to a higher category under (2) 6 of this rule, based on, but not limited to, the following factors: 7 (a) Anticipated public interest in the facility; 8 (b) Compliance and enforcement history of the facility or owner; 9 (c) Potential for significant environmental or public harm due to location or type of 10 facility; or 11 (d) A change in the nature of the facility or the quantity or types of solid waste received, 12 processed or disposed of at the facility. 13

(4) The public notice required under (2)(b), (c) and (d)(~~iii~~) of this rule will contain at least 14 the following information: 15 (a) Name of the applicant and location of the facility; 16

(b) Type of facility including a description of the facility'~~"~~s process subject to the permit; 17 (c) Description of permitted substances stored, disposed of, discharged or emitted, 18 including whether there has been an increase or decrease in the substance since the last 19 permit action for the facility;

20 (d) Location and description of documents relied upon in preparing the draft permit 21 action;

22
(e) Other permits required by the ~~Department~~department; 23 (f) Date of previous permit action; 24 (g) Opportunity for public comment, whether in writing or in person; 25 (h) Compliance, enforcement and complaint history along with resolution of the same; 26 and 27 (i) A summary of the discretionary decisions made by the Department in drafting the 28 permit.

(5) The ~~Department~~ department will provide the notice, as required under section (2) of this rule, to the applicant, those requesting notice of the permitting action, local news media, and other interested persons as identified by the Department.

Stat. Auth.: ORS 459.005 – ORS 459.418, ORS 459A.100 – ORS 459A.120 Stats. Implemented: ORS 459.245 Hist.: DEQ 34-1990, f. 8-20-90, cert. ef. 9-1-90; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0024; DEQ 15-2000, f. & cert. ef. 10-11-00

340-093-0105 Categories for

Permit Actions

(1) Category 1:

~~(a) Composting facility registration under 340-096-0024(1).~~

~~(b) Assignment to a composting facility general permit under 340-096-0024(2).~~ (~~c~~a) Waste Tire Carrier Permit under 340-064-0055. (~~d~~b) Letter Authorization under 340-093-0060. (~~e~~c) Modification to a permit that is administrative in nature or does not alter permit conditions.

(2) Category 2:

(a) Renewal of a construction and demolition debris landfill permit under 340-093-0070.

(b) Renewal of an industrial waste landfill permit under 340-093-0070.

~~(a)~~ (c) Renewal of ~~Closure~~ a closure permit under 340-094-0100 and 340-095-0500. (~~b~~d) Renewal of a transfer station permit under 340-096-0040. (~~c~~e) Renewal of a material recovery facility under 340-096-0040.

(f) Renewal of a solid waste treatment facility permit under 340-093-0070.

(~~d~~g) Renewal of a waste tire storage site under 340-064-0015.

(h) Renewal of a solid waste composting permit under 340-093-0070.

(i) New composting registration issued under OAR 340-096-100.

(j) Renewal of a composting facility registration under 340-096-0100. (~~e~~k) All other modifications not listed under category 1.

(3) Category 3:

(a) New captive industrial facility permit as defined in 340-097-0120(1)(c). b) New transfer station or material recovery facility permit under 340-096-0040.

(c) New ~~C~~composting ~~facility~~ permit issued under 340-096-0110.~~0024~~
(~~e~~d) New ~~C~~closure permit under 340-094-0100 and 340-095-0500.

(~~e~~) ~~Issuance of a composting facility general permit under 340-096-0024.~~

(f) New construction and demolition landfill under 340-095-0001.

(g) New solid waste treatment facility under 340-096-0050.

(h) New off-site industrial facility under 340-097-0120(2)(a).

(i) New sludge disposal facility permit under 340-096-0030.

(j) Renewal of a municipal landfill permit under 340-093-0070. (kj) Renewal of an incinerator or energy recovery facility permit under 340-093-0070.

(4) Category 4:

(a) New municipal solid waste landfill facility permit under 340-094-0001.

(b) New waste tire storage site permit under 340-064-0015.

(c) New incinerator permit under 340-096-0010.

(d) New energy recovery facility under 340-097-0120(2)(a).

Stat.Auth.: ORS 459A.025, ORS 459.045 & ORS 468.020
Stats. Implemented: ORS 459.245 Hist.: DEQ 15-2000, f. & cert. ef. 10-11-00

340-093-0110 Issuance or

Denial of a Permit

1 (1) The Department must take final action on the permit application within 45 days of the 2 close of the comment period. The scheduling of a hearing and the consideration of 3 comments will automatically constitute good cause for an extension of time under ORS 4 459.245. The Department will consider all timely received comments and any other 5 information obtained that may be pertinent to the permit action.

6 (2) Issuance of a permit: The Department may adopt or modify the proposed provisions 7 in the permit application. The Department will promptly notify the applicant in writing of 8 the final action as provided in OAR 340-011-0097 and will include a copy of the permit. 9 If the permit conditions are different from those contained in the permit application, the 10 notification will include the reasons for the changes.

11 (3) Denial of a permit: The Department will promptly notify the applicant in writing of 12 the final action as provided in OAR 340-011-0097. If the Department denies a permit 13 application, the notification will include the reasons for the denial. The Department will 14 deny the permit if:

15 (a) The application contains false information.

16 (b) The Department wrongfully accepted the application .

17 (c) The proposed disposal site would not comply with OAR chapter 340, divisions 93 18 through 97 or other applicable rules of the Department.

19 (d) The proposal is not part of or not compatible with the adopted local solid waste 20 management plan, or

21 (e) There is no clearly demonstrated need for the proposed new, modified or expanded 22 disposal site or for the proposed change in the method or type of disposal.

23 (4) The Department's decision is effective 20 days from the date of service of the notice 24 unless within that time the Department receives a request for a hearing from the 25 applicant. The request for a hearing must be in writing and state the grounds for the 26 request. The hearing will be conducted as a contested case hearing in accordance with 27 ORS 183.413 through 183.470, and OAR chapter 340, division 011.

28 Stat. Auth.: ORS 459A.025, ORS 459.045 & ORS 468.020 29 Stats. Implemented: ORS 459.245 30 Hist.: DEQ 26-1981, f. & ef. 9-8-81; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered 31 from 340-061-0026; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 27-1998, f. & cert. ef. 1132 13-98; DEQ 15-2000, f. & cert. ef. 10-11-00

33 **340-093-0113**

34 **Department Initiated Modification of a Permit**

1 If the Department determines it is appropriate to modify a permit, the Department will 2 notify the permittee by registered or certified mail of the proposed modification and 3 include them and the reasons for them. The modification will become effective upon 4 mailing unless the permittee requests a hearing within 20 days. A request for hearing shall be made in writing and state the grounds for the request. The hearing will be 6 conducted as a contested case hearing in accordance with ORS 183.413 through 183.470 7 and OAR chapter 340, division 011. If a hearing is requested, the existing permit 8 continues in effect until a final order is issued.

9 Stat. Auth.: ORS 459A.025, ORS 459.045 & ORS 468.020 Stats.
Implemented: ORS 459.245 11 Hist.: DEQ 15-2000, f. & cert. ef.
10-11-00

12 **340-093-0115**

13 **Termination or Revocation of a Permit**

14 (1) Automatic Termination: A permit automatically terminates when:

(a) The Department issues a new permit for the same activity or operation;

16 (b) The permittee requests in writing that the permit terminate, if the Department 17 determines that a permit is no longer needed; or

18 (c) The permittee fails to timely submit an application for permit renewal.

19 (i) Termination is effective on the permit expiration date.

(ii) A permit may be reinstated only if the permittee applies for a new permit including 21 the associated fees pursuant to division 097.

22 (iii) All permit conditions will remain in effect until such time as a new permit is issued 23 by the Department. Failure by a permittee to abide by the terms of any permit conditions 24 will be a violation of this provision.

(2) Revocation with prior notice:

26 (a) If the Department determines that a permittee is in noncompliance with the terms of 27 the permit, submitted false information in the application or other required 28 documentation, or is in violation of any applicable law, the Department may revoke the 29 permit.

(b) The Department will provide notice of the intent to revoke the permit in accordance 31 with OAR 340-011-0097. The notice will include the reasons why the permit will be 32 revoked, and include an opportunity for hearing before the revocation. The Department 33 must receive a written request for hearing stating the grounds for the request within 60

1 days from service of the notice. The hearing will be conducted as a contested case 2 hearing in accordance with ORS 183.413 through 183.470 and OAR chapter 340, 3 division 011. The permit will continue in effect until the 60 days expires or until a final 4 order is issued.

5 (3) Revocation without prior notice:

6 (a) If the Department finds that the permittee's activities cause a serious danger to the 7 public health, safety or the environment, the Department may immediately revoke or 8 refuse to renew the permit without prior notice or opportunity for a hearing.

9 (b) If no advance notice of the revocation is provided, the Department will notify the 10 permittee as soon as possible as provided in OAR 340-011-0097. The notification will set 11 forth the specific reasons for the revocation or refusal to renew.

12 (c) The Department must receive a written request for a hearing stating the grounds for 13 the request within 90 days of service of the notice. The hearing will be conducted as a 14 contested case hearing in accordance with ORS 183.413 through 183.470 and OAR 15 chapter 340, division 011. If the Department does not receive a request for a hearing 16 within 90 days, the revocation or refusal to renew becomes final without further action by 17 the Department.

18 Stat. Auth.: ORS 459.045 & ORS 459.785 19 Stats. Implemented: ORS 459.255 & ORS 459.755 20 Hist.: DEQ 15-2000, f. & cert. ef. 10-11-00

21 **340-093-0120**

22 **Violations**

23 Violations of OAR Chapter 340, Divisions 93 through 97 shall be punishable as provided 24 in ORS Chapter 459 and pursuant to OAR Chapter 340, Division 12.

25 Stat. Auth.: ORS 459 26 Stats. Implemented: ORS 459.255, ORS 459.376, ORS 459.992 & ORS 459.995 27 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered 28 from 340-061-0085; DEQ 10-1994, f. & cert. ef. 5-4-94

29 **340-093-0130**

30 **Site Characterization Report(s)**

31 The purpose of the site characterization report(s) required by OAR 340-093-0070(~~4~~3)(e) 32 is to demonstrate that the proposed facility will be located in a suitable site and will use 33 appropriate technology in design, construction and operation. The site characterization 34 report(s) ~~shall~~must describe existing site conditions and a conceptual engineering

1 proposal in sufficient detail to determine whether the facility is feasible and protects the 2 environment. The site characterization report(s) ~~shall~~must include, but not be limited to, 3 the following: 4 (1) Information on site location and existing site conditions, including: 5 (a) A site location description, including a location map and list of adjacent 6 landowners; 7 (b) An Existing Conditions Map of the area showing land use and zoning within 1/4 8 mile of the disposal site; and 9 (c) Identification of any siting limitations and how those limitations will be addressed. 10 (2) A description of the scope, magnitude, type, and purpose of the proposed facility, 11 including but not limited to the following: 12 (a) Estimated capacity and projected life of the site; 13 (b) Identification of the communities, industries and/or markets to be served; 14 (c) Anticipated types and quantities of solid wastes to be received, disposed of and/or 15 processed by the facility; 16 (d) Summary of general design criteria and submittal of conceptual engineering plans; 17 (e) Description of how the proposed technology compares to current technological 18 practices, or to similar proven technology, including references to where similar 19 technology has been effectively implemented; 20 (f) Demonstration that the proposed facility is compatible with the local solid waste 21 management plan and the state solid waste management plan; 22 (g) Planned future use of the disposal site after closure; 23 (h) Key assumptions used to calculate the economic viability of the proposed facility; and 24 (i) The public involvement process that has been and will be implemented. 25 (3) A proposal for protection and conservation of the air, water and land environment 26 surrounding the disposal site, including control and/or treatment of leachate, methane gas, 27 litter and vectors, and control of other discharges, emissions and activities which may 28 result in a public health hazard, a public nuisance or environmental degradation. 29

(4) For a landfill, the following ~~shall~~must be included:

(a) A detailed soils, geologic, and groundwater report of the site prepared and stamped by a professional Engineer, Geologist or Engineering Geologist with current Oregon registration. The report ~~shall~~must include consideration of surface features, geologic formations, soil boring data, water table profile, direction of groundwater flow, background quality of water resources in the anticipated zone of influence of the landfill, need and availability of cover material, climate, average rates of precipitation, evapotranspiration, runoff, and infiltration (preliminary water balance calculations);

(b) Information on soil borings to a minimum depth of 20 feet below the deepest proposed excavation and lowest elevation of the site or to the permanent groundwater table if encountered within 20 feet. A minimum of one boring per representative landform at the site and an overall minimum of one boring per each ten acres ~~shall~~must be provided. Soil boring data ~~shall~~must include the location, depth, surface elevation and water level measurements of all borings, the textural classification (Unified Soil Classification System), permeability and cation exchange capacity of the subsurface materials and a preliminary soil balance;

(c) For all water wells located within the anticipated zone of influence of the disposal site, the depth, static level and current use ~~shall~~must be identified;

(d) Background groundwater quality ~~shall~~must be determined by laboratory analysis and ~~shall~~must include at least each of the constituents specified by the ~~Department~~department.

(5) Any other information the ~~Department~~ department may deem necessary to determine whether the proposed disposal site is feasible and will comply with all applicable rules of the ~~Department~~department.

Stat. Auth.: ORS 459 Stats. Implemented: ORS 459.015 & ORS 459.205(1) Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0030; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & cert. ef. 8-14-97

340-093-0140

Detailed Plans and Specifications Required

Except as provided in OAR 340-093-0070((~~5~~3)(f):

(1) Any person applying for a Solid Waste Disposal Permit ~~shall~~must submit plans and specifications conforming with current technological practices, and sufficiently detailed and complete so that the ~~Department~~ department may evaluate all relevant criteria before issuing a permit. The plans and specifications ~~shall~~must follow the organizational format, and include the level of information detail, as required by the ~~Department~~department. The ~~Department~~ department may refuse to accept plans and specifications that are incomplete

and may request such additional information as it deems necessary to determine that the proposed disposal site and site operation will comply with all pertinent rules of the ~~Department~~department.

(2) Engineering plans and specifications submitted to the ~~Department~~ department ~~shall~~must be prepared and stamped by a professional engineer with current Oregon registration.

(3) If in the course of facility construction any person desires to deviate significantly from the approved plans, the permittee ~~shall~~must submit a detailed description of the proposed change to the ~~Department~~ department for review and approval prior to implementation. If the ~~Department~~ department deems it necessary, a permit modification ~~shall~~must be initiated to incorporate the proposed change.

Stat. Auth.: ORS 459 Stats. Implemented: ORS 459.015 & ORS 459.205(1) Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 26-1981, f. & ef. 9-8-81;; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0035; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & cert. ef. 8-14-97

340-093-0150

Construction Certification

Except as provided in OAR 340-093-0070(~~5~~4):

(1) The ~~Department~~ department may require, upon completion of major or critical construction at a disposal site, that the permittee submit to the ~~Department~~ department a final project report signed by the project engineer or manager as appropriate. The report ~~shall~~must certify that construction has been completed in accordance with the approved plans including any approved amendments thereto.

(2) If any major or critical construction has been scheduled in the plans for phase development subsequent to the initial operation, the ~~Department~~ department may require that the permittee submit additional certification for each phase when construction of that phase is completed.

(3) Solid waste ~~shall~~must not be disposed of in any new waste management unit (such as a landfill cell) of a land disposal site unless/until the permittee has received prior written approval from the ~~Department~~ department of the required engineering design, construction, Construction Quality Assurance, operations, and monitoring plans. Only after the ~~Department~~ department has accepted a construction certification report prepared by an independent party, certifying to the ~~Department~~ department that the unit was constructed in accordance with the approved plans, may waste be placed in the unit. If the ~~Department~~ department does not respond to a certified construction certification report

1 within 30 days of its receipt, the permittee may proceed to use the unit for disposal of the 2 intended solid waste.

3 Stat. Auth.: ORS 459.045, ORS 459A.025 & ORS 468.020 4 Stats. Implemented: ORS 459.015 & ORS 459.205 – ORS 459.245 5 Hist.: DEQ 26-1981, f. & ef. 9-8-81; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered 6 from 340-061-0036; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & cert. ef. 87 14-97; DEQ 27-1998, f. & cert. ef. 11-13-98

8 **340-093-0160**

9 **Place for Collecting Recyclable Material**

10 (1) All solid waste permittees shall ensure that a place for collecting source separated 11 recyclable material is provided for every person whose solid waste enters the disposal 12 site. The place for collecting recyclable material shall be located either at the disposal site 13 or at another location more convenient to the population served by the disposal site.

14 (2) Any disposal site that identifies a more convenient location for the collection of 15 recyclable materials as part of providing the opportunity to recycle shall provide 16 information to users of the disposal site about the location of the recycling collection site, 17 what recyclable materials are accepted and hours of operation.

18 (3) Exemption. Any disposal site meeting one of the following criteria is not required to 19 provide a place for collecting source separated recyclable material:

20 (a) Receives only feedstocks for composting; or

21 (b) Does not receive source separated recyclable material; or

22 (c) Does not receive solid waste containing recyclable material.

23 (4) Small Rural Sites. Any disposal site from which marketing of recyclable material is 24 impracticable due to the amount or type of recyclable material received or geographic 25 location shall provide information to the users of the disposal site about the opportunity 26 to recycle at another location serving the wasteshed. Such information shall include the 27 location of the recycling opportunity, what recyclable materials are accepted and hours of 28 operation.

29 (5) The Department may modify the requirements in this rule if the Department finds that 30 the opportunity to recycle is being provided through an acceptable alternative method.

31 Stat. Auth.: ORS 459.045, ORS 459A.100 - ORS 459A.120 & ORS 468.020 32 Stats. Implemented: ORS 459.250 33 Hist.: DEQ 26-1981, f. & ef. 9-8-81; DEQ 26-1984, f. & ef. 12-26-84; DEQ 31-1992, f. 34 & cert. ef. 12-18-92 (and corrected 1-5-93); DEQ 5-1993, f. & cert. ef. 3-10-93;

1 Renumbered from 340-060-0065; DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 17-1997, f. & 2 cert. ef. 8-14-97

3 **340-093-0170**

4 **Cleanup Materials Contaminated with Hazardous Substances**

(1) Applicability:

6 (a) For the purposes of this rule, "cleanup materials contaminated by hazardous 7 substances" such as petroleum contaminated soils include only those materials which are 8 not hazardous wastes as defined by ORS 466.005;

9 (b) This rule applies to cleanup materials contaminated with hazardous substances when such materials are removed from the site of contamination for treatment and/or disposal 11 elsewhere. It does not apply to activities governed under ORS Chapters 465 or 466.

12 (2) Management "hierarchy." Preferred management options for cleanup materials 13 contaminated by hazardous substances are as follows:

14 (a) First, use of alternative or resource recovery technologies where cross media effects are well controlled, such as thermal desorption;

16 (b) Use of alternative technologies where cross media effects are less easily controlled, 17 such as biological treatment of petroleum contaminated soils (bioremediation);

18 (c) Disposal at a permitted landfill using best management practices;

19 (d) If subsection (c) of this section is clearly impractical, or if local needs require disposal at a facility without a liner and leachate collection system, disposal at another permitted 21 landfill pursuant to subsection (3)(d) of this rule may be authorized by the Department.

22 (3) Landfill disposal:

23 (a) For the purpose of this rule, best management practices shall be defined as a landfill 24 meeting the design criteria in **40 CFR 258, Subpart D**, or an alternate design approved by the Department with a bottom lining system which performs equivalent to a composite 26 liner consisting of a 60 mil thickness geomembrane component and two feet of soil 27 achieving a maximum saturated hydraulic conductivity of 1 x 10-6 centimeters per 28 second; and a leachate collection and treatment system designed to maintain a leachate 29 head of one foot or less;

(b) The land and facilities used for disposal, treatment, transfer, or resource recovery of 31 cleanup material contaminated by hazardous substances, unless that activity is otherwise 32 regulated by the Department, shall be defined as a disposal site under ORS 459.005 and

1 shall be subject to the requirements of OAR Chapter 340, Divisions 93 through 97, 2 including permit requirements;

3 (c) Cleanup materials contaminated by hazardous substances may be landfilled only in 4 solid waste landfills authorized by the Department to receive this type of material;

5 (d) To protect groundwater, the Department may authorize an owner or operator of a 6 landfill to receive cleanup materials contaminated by hazardous substances if the 7 following criteria are met:

8 (A) The landfill uses "best management practices" as defined in this rule;

9 (B) A Special Waste Management Plan for the facility pursuant to OAR 340-09410 0040(11)(b)(J) or 340-095-0020(3)(j) is approved by the Department which specifically 11 addresses the management of the cleanup materials and requires, at a minimum, the 12 following practices:

13 (~~I~~i) The owner or operator of the landfill maintains for the facility a copy of the 14 analytical results of one or more representative composite samples from the 15 contaminated materials received for disposal;

16 (ii) The owner or operator maintains for the facility a record of the source, types, and 17 volumes of the contaminated materials received for disposal, and reports the sources, 18 types, and volumes received to the Department in a quarterly waste report;

19 (iii) Petroleum-contaminated soils, whenever possible, are incorporated into the daily 20 cover material unless such practice would increase risks to public health or the 21 environment; and

(22) Any other requirements which the Department deter-mines are necessary to protect 23 public health and the environment.

24 (e) The Department may authorize an owner or operator of a landfill to receive cleanup 25 materials contaminated by hazardous substances for disposal at a landfill which does not 26 meet the requirements of subsection (d) of this section if:

27 (A) The landfill accepts less than 1,000 tons or five percent of the total volume of waste 28 received, whichever is less, per year of cleanup material contaminated by hazardous 29 substances; or

30 (B) The cleanup materials contain concentrations of hazardous substances which do not 31 exceed the cleanup levels approved by the Department for the site from which the 32 materials were removed; or

33 (C) The Department determines that the total concentrations and the hazardous 34 characteristics of the hazardous substances in the cleanup materials will not present a

threat to public health or the environment at the disposal facility, after considering the following factors:

(i) The compatibility of the contaminated materials with the volumes and characteristics of other wastes in the landfill;

(ii) The adequacy of barriers to prevent release of hazardous constituents to the environment, including air, ground and surface water, soils, and direct contact;

(iii) The populations or sensitive areas, such as aquifers, wetlands, or endangered species, potentially threatened by release of the hazardous substances;

(iv) The demonstrated ability of the owner or operator of the facility to properly manage the wastes;

(v) Relevant state and federal policies, guidelines and standards; and

(vi) The availability of treatment and disposal alternatives.

(4) Procedures: A landfill owner or operator who wants to receive cleanup materials contaminated with hazardous substances shall apply to the Department for Hazardous Substance Authorization, including a Special Waste Management Plan for the materials to be received.

[Publications: The publication(s) referred to or incorporated by reference in this rule are available from the agency.]

Stat. Auth.: ORS 459.045, ORS 459A.100 - ORS 459A.120 & ORS 468.020
Stats. Implemented: ORS 459.205 & ORS 459.235 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 30-1988(Temp), f. & cert. ef. 11-17-88; DEQ 22 6-1989, f. 4-24-89, cert. ef. 5-4-89; DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 24-1990, f. 23 & cert. ef. 7-6-90; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0060; 24 DEQ 10-1994, f. & cert. ef. 5-4-94; DEQ 9-1996, f. & cert. ef. 7-10-96

340-093-0190

Wastes Requiring Special Management

(1) The following wastes require special handling or management practices, and shall not be deposited at a solid waste disposal site unless special provisions for such disposal are included in a Special Waste Management Plan pursuant to OAR 340-094-0040(11)(b)(J) or 340-095-0020(3)(j), or their disposal is otherwise approved by the Department:

(a) Agricultural Wastes. Residues from agricultural practices shall be recycled, utilized for productive purposes or disposed of in a manner not to cause vector creation or sustenance, air or water pollution, public health hazards, odors, or nuisance conditions;

1 (b) Construction and Demolition Materials. Due to the unusually combustible nature of 2 construction and demolition materials, construction and demolition landfills or landfills 3 incorporating large quantities of combustible materials shall be designed and operated to 4 prevent fires and the spread of fires, in accordance with engineering or operations plans 5 required by OAR Chapter 340, Divisions 93 through 96. Equipment shall be provided of 6 sufficient size and design to densely compact the material to be included in the landfill;

7 (c) Oil Wastes. More than 25 gallons of petroleum-bearing wastes such as used oil filters, 8 oil-absorbent materials, suspended solids that have settled to the bottom of the tank (tank 9 bottoms) or oil sludges shall not be placed in any disposal site unless all recoverable 10 liquid oils are removed and special provisions for handling and other special precautions 11 are included in the facility's approved plans and specifications and operations plan to 12 prevent fires and pollution of surface or groundwaters. See also OAR 340-09313 0040(3)(a), Prohibited Disposal;

14 (d) Infectious Wastes. All infectious wastes must be managed in accordance with ORS 15 459.386 to 459.405:

16 (A) Pathological wastes shall be treated by incineration in an incinerator which complies 17 with the requirements of OAR 340-025-0850 to 340-025-0905 unless the Department 18 determines:

19 (i) The disposal cost for incineration of pathological wastes generated within the 20 individual wasteshed exceeds the average cost by 25 percent for all incinerators within 21 the State of Oregon which comply with the requirements of OAR 340-025-0850 to 34022 025-0905; or the generator is unable to contract with any incinerator facility within the 23 State of Oregon due to lack of incinerator processing capacity; and

24 (ii) The State Health Division of the Oregon Department of Human Resources has 25 prescribed by rule requirements for sterilizing "cultures and stocks," and this alternative 26 means of treatment of the pathological waste is available.

27 (B) Sharps. Sharps may be treated by placing them in a leak-proof, rigid, puncture28 resistant, red container that is taped closed or tightly lidded to prevent loss of the 29 contents. Sharps contained within containers which meet these specifications may be 30 disposed of in a permitted municipal solid waste landfill without further treatment if they 31 are placed in a segregated area of the landfill;

32 (C) Medical Waste. Medical waste other than infectious waste as defined by ORS 33 459.386 or hazardous wastes as defined by ORS 466.055 may be disposed of without 34 special treatment in municipal solid waste landfills permitted by the Department if such 35 disposal is not prohibited in the permit.

36 (e) Asbestos. Wastes containing asbestos shall be disposed of pursuant to OAR 340-03237 0100 through 340-032-0120 and 340-032-5590 through 340-032-5650;

1 (f) Abrasive Blast Media Containing Pesticides. Waste described in OAR 340-1012 0040(1) may be disposed of at a solid waste landfill if the site meets the design criteria of 3 **40 CFR 258.40** for new municipal solid wastes landfill units;

4 (g) Pesticide Treated Wood. Waste described in OAR 340-101-0040(2) may be disposed of at a solid waste landfill if the site meets the design criteria of **40 CFR 258.40** for new 6 municipal solid waste landfill units.

7 (2) Incinerator ash. Ash from domestic energy recovery facilities and from domestic solid 8 waste incinerator disposal sites shall be disposed of at an ash monofill permitted by the 9 Department. Such a monofill must meet standards in **40 CFR 258** and OAR Chapter 340, Division 94.

11 (3) Polychlorinated Biphenyls (PCBs). Wastes containing polychlorinated biphenyls shall 12 be disposed of pursuant to OAR Chapter 340, Division 110.

13 [Publications: The publication(s) referred to or incorporated by reference in this rule are 14 available from the agency.]

Stat. Auth.: ORS 459.045, ORS 459.046, ORS 459A.025 & ORS 468.020 16 Stats. Implemented: ORS 459.015, ORS 459.205 – ORS 459.245 & ORS 459.411 – ORS 17 459.405 18 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 30-1988(Temp), f. & cert. ef. 11-17-88; DEQ 19 6-1989, f. 4-24-89, cert. ef. 5-4-89; DEQ 14-1990, f. & cert. ef. 3-22-90; DEQ 24-1990, f. & cert. ef. 7-6-90; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0060; 21 DEQ 6-1994, f. & cert. ef. 3-22-94; DEQ 10-1994, f. & cert. ef. 5-4-94; Administrative 22 correction 10-27-97; DEQ 27-1998, f. & cert. ef. 11-13-98

23 **340-093-0210**

24 **Storage and Collection**

(1) General Requirements. Storage and collection of solid waste shall be conducted in a 26 manner to prevent:

27 (a) Vector production and sustenance;

28 (b) Conditions for transmission of diseases to man or animals;

29 (c) Hazards to service or disposal workers or to the public;

(d) Air pollution;

31 (e) Water pollution or allow escape of solid wastes or contaminated water to public 32 waters;

1 (f) Objectionable odors, dust, unsightliness, aesthetically objectionable conditions or 2 other nuisance conditions.

3 (2) Containers and Storage Areas:

4 (a) Standard Garbage Containers. Individual containers for manual pickup shall have a tight-fitting lid or cover, handle holds or bales and be in good condition;

6 (b) Storage Bins and Storage Vehicles:

7 (A) Storage bins shall be watertight and storage vehicles shall be operated in such manner 8 to minimize leakage or spillage. Bins and vehicles shall have tight lids and covers that 9 may be easily opened for intended use and shall have suitable fittings to facilitate removal or emptying;

11 (B) Containers, storage bins or storage vehicles shall be readily washable or have liners 12 of paper, plastic or similar materials, or both.

13 (c) Storage Area:

14 (A) Storage houses, rooms or areas shall be of rodent proof construction which is readily cleanable with proper drainage;

16 (B) Storage rooms or buildings, if not refrigerated, shall be adequately vented and all 17 openings shall be screened.

18 (d) Unconfined Waste. Unless special service or special equipment is provided by the 19 collector for handling unconfined waste, materials such as rubbish and refuse, brush, leaves, tree cuttings, and other debris for manual pickup and collection shall be in 21 securely tied bundles or in boxes, sacks, or other receptacles and solid waste so bundled 22 shall not exceed 60 pounds in weight.

23 (3) Removal Frequency. Putrescible solid waste shall be removed from the premises at 24 regular intervals. All solid waste shall be removed at regular intervals so as not to create the conditions cited in section (1) of this rule.

26 (4) Cleaning of Storage Area. Areas around storage containers shall be cleaned regularly 27 so as not to create the conditions cited in section (1) of this rule.

28 (5) Storage of Specified Wastes:

29 (a) Industrial Solid Wastes. Storage of industrial solid wastes shall be in accordance with these rules. Open storage areas shall not be closer than 100 feet horizontal distance from 31 the normal highwater mark of any public waters unless special provision is made which 32 prevents wastes, or drainage therefrom, from entering public waters;

1 (b) Agricultural Wastes. Storage of agricultural wastes shall not create vector production
2 or sustenance, conditions for transmission of diseases to man or animals, water or air
3 pollution and shall be in a manner to reduce and minimize objectionable odors,
4 unsightliness, aesthetically objectionable and other nuisance conditions;

5 (c) Hazardous Wastes. Containers for hazardous wastes shall be marked to designate the 6 content as toxic, explosive, or otherwise hazardous in a manner designed to give adequate 7 protection to the collector and storage site operator and consistent with **40 CFR, Part** 8 **262**;

9 (d) Asbestos. Wastes containing asbestos shall be stored and handled pursuant to OAR 10 340-025-0450 through 340-025-0469;

11 (e) Polychlorinated Biphenyls (PCBs). Wastes containing polychlorinated biphenyls shall 12 be stored and handled pursuant to OAR Chapter 340, Division 110.

13 [Publications: The publication(s) referred to or incorporated by reference in this rule are 14 available from the agency.]

15 Stat. Auth.: ORS 459.005 - ORS 459.418 & ORS 459A.100 - ORS 459A.120 16 Stats. Implemented: ORS 459.388, ORS 459.415, ORS 459.715 & ORS 459.720 17 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered 18 from 340-061-0070

19 **340-093-0220**

20 **Transportation**

21 (1) Collection and Transfer Vehicles Construction and Operation:

22 (a) Solid waste collection and transfer vehicles and devices shall be constructed, loaded 23 and operated so as to prevent dropping, leaking, sifting, or blowing or other escapement 24 of solid waste from the vehicle;

25 (b) Collection and transfer vehicles and devices carrying loads which are likely to blow 26 or fall shall have a cover which is either an integral part of the vehicle or device or which 27 is a separate cover of suitable materials with fasteners designed to secure all sides of the 28 cover to the vehicle or device and shall be used while in transit.

29 (2) Cleaning Collection Vehicles. Collection and transfer vehicles or other devices used 30 in transporting solid waste shall be cleanable and shall be cleaned at regular intervals as 31 necessary to prevent odors, insects, rodents, or other nuisance conditions.

32 (3) Waste Water. Waste water from the cleaning process of containers of non-hazardous 33 waste shall be disposed of in a manner approved by the Department or state or local 34 health department having jurisdiction.

1 Stat. Auth.: ORS 459.005 - ORS 459.418 & ORS 459A.100 - ORS 459A.120 2 Stats. Implemented: ORS 459.405 & ORS 459.712 3 Hist.: DEQ 41, f. 4-5-72, ef. 4-15-72; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered 4 from 340-061-0075

340-093-0250

6 **Landfill Siting: Request for DEQ Assistance**

7 (1) A city or county responsible for implementing a Department approved Solid Waste 8 Management Plan which identifies the need for a landfill may request assistance from the 9 Department in establishing a landfill under ORS 459.047.

(2) Applications for requests for assistance in siting landfills under ORS 459.047 shall be 11 in the form of a letter signed by the governing body of the city or county with 12 attachments as necessary to fully describe the need and justification for the request, need 13 for the site as outlined in the Department approved Solid Waste Management Plan and 14 types of assistance required.

(3) When the request for assistance includes Department siting of the landfill under ORS 16 459.047, exhibits and information shall be submitted which document the following:

17 (a) The local government has an adopted, Department approved Solid Waste 18 Management Plan which identifies the need for a landfill;

19 (b) The local government has reevaluated the plan in consultation with the Department and has confirmed that siting a landfill in the immediate future is still needed;

21 (c) An explanation of why the local government is unable to proceed successfully to site 22 the landfill, including a discussion of progress to date and the obstacles to be overcome;

23 (d) All pertinent reports, plans, documents and records relative to the siting process to 24 date will be made available to the Department at the Department's request;

(e) The local government has carried out a process for landfill siting (with technical 26 assistance from the Department if requested) including a minimum of the following:

27 (A) Alternative sites have been reviewed and ranked as to adequacy and probable 28 acceptability based upon locally developed criteria and applicable laws and regulations;

29 (B) Information has been gathered on at least the top ranked site sufficient to satisfy the requirements of the "site characterization report(s)" provided for in OAR 340-093-0130. 31 Certain requirements of the "site characterization report(s)" may be waived, for the 32 purpose of this section, by the Department upon a demonstration of prohibitive cost or 33 legal constraint;

(C) A public participation process, including the use of a citizens' advisory committee or other approach which provides for public access, review and input has been carried out in the siting process.

(4) The Department shall give reasonable public notice of each such request, including the prompt publication of a summary of such request in the Secretary of State's Bulletin.

(5) Requests for siting under ORS 459.047 will be reviewed by the Commission and written findings as to the acceptability of the process under subsection (3)(e) of this rule will be prepared. Should the process be found incomplete, the Commission may request the Department or the local government to complete the process.

(6) Landfill siting in Marion, Polk, Clackamas, Washington or Multnomah Counties under ORS 459.049:

(a) Public comment to determine need. Prior to the Commission making a determination of need for any landfill site under ORS 459.049, the Department shall give prior reasonable public notice of, and hold a public informational hearing on, the need for the landfill site;

(b) Public hearing in area affected by proposed site. Prior to siting a landfill under ORS 459.049, the Department shall give prior reasonable public notice of and hold a public informational hearing in the area affected by the proposed site.

Stat. Auth.: ORS 459 Stats. Implemented: ORS 459.017, ORS 459.035 & ORS 459.047
Hist.: DEQ 25-1980, f. & ef. 10-2-80; DEQ 30-1980, f. & ef. 11-10-80; DEQ 2-1984, f. 22 & ef. 1-16-84; DEQ 5-1993, f. & cert. ef. 3-10-93; Renumbered from 340-061-0021, 340-061-0022 & 340-061-0023; DEQ 10-1994, f. & cert. ef. 5-4-94

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§ 281.1. Scope.

(a) This chapter sets forth application and operating requirements for composting facilities. The requirements in this chapter are in addition to the applicable requirements in Chapter 271 (relating to municipal waste management—general provisions).

(b) Subchapters B and C (relating to application requirements for general composting facilities; and operating requirements for general composting facilities) set forth application and operating requirements for a person or municipality that operates or proposes to operate a general composting facility.

§ 281.2. [Reserved].

Source

The provisions of this § 281.2 adopted April 8, 1988, effective April 9, 1988, 18 Pa.B. 1681; amended October 9, 1992, effective October 10, 1992, 22 Pa.B. 5105; reserved January 24, 1997, effective January 25, 1997, 27 Pa.B. 521. Immediately preceding text appears at serial pages (173916) to (173917).

Subchapter B. APPLICATION REQUIREMENTS FOR GENERAL COMPOSTING FACILITIES

GENERAL PROVISIONS

Sec.

PLANS

COMPOSTING

SOIL AND WATER

CONTINGENCIES AND CLOSURE

Cross References

This subchapter cited in 25 Pa. Code § 281.1 (relating to scope).

GENERAL PROVISIONS

§ 281.101. General requirements.

(a) An application to operate a general composting facility shall:

(1) Comply with this subchapter.

(2) Comply with the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(b) Maps, plans and cross sections submitted to comply with this subchapter shall be on a scale in which 1 inch equals no more than 50 feet with 2-foot maximum contour intervals, unless otherwise approved by the Department.

Source

The provisions of this § 281.101 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226349).

PLANS

§ 281.111. Operating plan.

An application to operate a general composting facility shall contain the following:

(1) A narrative description of the general operating plan for the proposed facility, including the origin, composition and weight or volume of solid waste that is proposed to be composted at the facility, the suitability of the waste for composting, the composting process to be used at the facility, the daily operational methodology of the proposed process, the proposed processing and storage capacity of the facility and the expected life of the facility.

(2) A plan for an alternative waste handling or disposal system during periods when the proposed facility is not in operation, including procedures to be followed in case of equipment breakdown. Procedures may include the use of standby equipment, extension of operating hours or contractual agreements for diversion of municipal waste to other facilities.

(3) A plan for sampling and analyzing the compost.

(4) A description of the anticipated quality of the compost.

(5) A plan for the anticipated recovery rate of compost from the process, and plans for the reuse, sale or marketing of the compost.

(6) A plan for managing compost should markets for the sale or reuse of compost become unavailable.

(7) A plan for the proposed location and method for disposal or processing of residue produced by operation of the facility.

(8) A plan for assuring that solid waste received at the facility is consistent with § 281.201 (relating to basic limitations).

(9) A plan for training equipment operators and other personnel concerning the operation and approved design of the facility.

(10) The proposed operating hours of the proposed facility.

(11) A narrative describing the procedures for inspection and monitoring of incoming waste.

Source

The provisions of this § 281.111 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (226349) to (226350).

§ 281.112. Maps and related information.

(a) An application shall contain a topographic map, including necessary narrative descriptions, which shows the following:

(1) The boundaries and names of present owners of record of land, both surface and subsurface, and including easements, rights-of-way and other property interests, for the proposed permit area and adjacent area; the boundaries of the land within the proposed permit area; and a description of title, deed or usage restrictions affecting the proposed permit area.

(2) The boundaries of land to be affected over the estimated total life of the proposed operation.

(3) The location and name of surface water bodies, such as springs, streams, lakes, ponds, wetlands, constructed or natural drains and irrigation ditches located on the proposed permit area and adjacent area.

(4) The location and name of public and private water sources that are located on the proposed permit area and adjacent area.

(5) The location of rights-of-way for high-tension power lines, pipelines, railroads and public and private roads within 300 feet of the proposed facility.

(6) The location of buildings currently in use within 300 feet of the proposed facility.

(7) The anticipated location of water quality monitoring points.

(8) The boundaries of land within the proposed permit area or adjacent area identified in § 281.202 (relating to areas where general composting facilities are prohibited).

(9) The location of underground mine shafts on the proposed permit area and adjacent areas.

(10) The municipalities in which the permit area is proposed to be located.

(11) The location of the 100-year floodplain boundaries in the permit area and adjacent area.

(12) The location of barriers, fences and similar structures required by § 281.213 (relating to access control).

(13) The water diversion, collection, conveyance, sedimentation and erosion control, treatment, storage and discharge facilities to be used.

(14) The composting pads, tipping areas, storage areas, windrows and loading/unloading areas.

(15) The areas of land for which a bond will be posted under Chapter 271, Subchapter D (relating to financial assurances requirements).

(16) The location, size and use of buildings and related facilities which will be used in the operation, including the horizontal and vertical dimensions.

(17) The location of scales and weigh stations to be used in the operation.

(18) The utilities to be installed at the facility.

(19) The location of access loads to the site, including slopes, grades and lengths of the roads.

(20) For a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, a designated area for vehicles for use in the event of the detection of waste containing radioactive material. The designated area shall, by location or shielding, protect the environment, facility staff and public from radiation originating in the vehicle. The Department's "*Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*," Document Number 250-3100-001, describes various factors to consider in determining an appropriate designated area.

(b) The applicant shall also submit a grid coordinate system for the entire proposed permit area. The horizontal control system shall consist of a grid not to exceed 200-foot-square sections. A permanent benchmark for horizontal and vertical control shall be shown. The grid system shall be tied to the benchmark and the baseline.

Source

The provisions of this § 281.112 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (226350) to (226351).

Cross References

This section cited in 25 Pa. Code § 271.114 (relating to transition period).

§ 281.113. Design and related information.

The application shall contain a narrative description of the following:

(1) Site preparation procedures.

(2) The sources, types and volumes of solid waste to be composted on a daily basis.

(3) The methods to be used to control the flow of waste to the facility, including a flow chart depicting the processing of solid waste and mechanical components of the processing system.

(4) The size, type, capacity and general specifications of equipment for the handling, processing and storage of the solid waste.

(5) For composting processes that are not totally enclosed, the frequency schedule for turning, agitation or aeration of the compost; and for totally enclosed composting processes, the design, composting method and operational procedure.

(6) The windrow dimensions, design and construction methods.

(7) The maximum and minimum length of time necessary to complete the composting process.

(8) The method for separation, storage and ultimate disposal of noncompostable materials, including bulky waste.

(9) The physical and chemical composition of compost residue produced by the process.

(10) The minimum and maximum volume or weight of compost or residue to be stored prior to sale, reuse or disposal, and the minimum and maximum time that material or waste is to be stored.

(11) Plans for utilities to be installed at the facility, including onsite or offsite point-of-service connections and points of usage.

(12) The flooding frequency of the proposed permit area.

§ 281.114. Description of geology, soils and groundwater.

The application shall contain a description of the geology, soils and groundwater of the proposed permit area, based on a sufficient number of excavations and borings or wells to enable the Department to evaluate whether the proposed activities will be able to comply with the operating requirements in Subchapter C (relating to operating requirements for general composting facilities).

§ 281.115. Plan for access roads.

The application shall contain designs, cross sections and specifications for access roads, including load limits, to demonstrate compliance with § 281.212 (relating to access roads).

Cross References

This section cited in 25 Pa. Code § 281.212 (relating to access roads).

§ 281.116. Access control plan.

The application shall contain plans sufficient to demonstrate compliance with § 281.213 (relating to access control), including plans showing fencing and barriers to be constructed at the facility in full elevation, fully dimensioned and with the type of construction materials specified.

§ 281.117. Nuisance control plan.

The application shall contain a plan under § 281.218 (relating to nuisance control) to prevent and control hazards or nuisances from vectors, odors, noise, dust and other nuisances not otherwise provided for in the permit application. The plan shall provide for the routine assessment of vector infestation and shall also provide for countermeasures. The plan may include a control program involving a contractual arrangement for services with an exterminator.

§ 281.118. Litter control plan.

The application shall contain a plan under § 281.220 (relating to litter) to control litter.

§ 281.119. Radiation protection action plan.

(a) An application for a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, shall contain an action plan specifying procedures for monitoring for and responding to radioactive material entering the facility, as well as related procedures for training, notification, recordkeeping and reporting.

(b) The action plan shall be prepared in accordance with the Department's "*Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*," Document Number 250-3100-001, or in a manner at least as protective of the environment, facility staff and public health and safety and which meets all statutory and regulatory requirements.

(c) The action plan shall be incorporated into the facility's approved waste analysis plan under § 271.613 (relating to waste analysis plan).

Source

The provisions of this § 281.119 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685.

Cross References

This section cited in 25 Pa. Code § 271.114 (relating to transition period); and 25 Pa. Code § 281.221 (relating to radiation monitoring and response).

COMPOSTING

§ 281.121. Composting pad and vessel design.

(a) An application shall contain plans and specifications for the design, construction and maintenance of composting pads and vessels that will be required for the proposed facility.

(b) The application shall also contain a plan for inspection of composting pads and vessels to ensure their integrity.

(c) Composting pad and vessel plans and designs shall be consistent with § 281.231 (relating to composting pad or vessel).

Source

The provisions of this § 281.121 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226352).

§ 281.122. Chemical analysis of sludge.

(a) If the application proposes that sewage sludge be composted at the facility, the applicant shall submit to the Department, on forms provided by the Department, a detailed analysis that fully characterizes the chemical and physical properties of the sludge.

(b) The applicant shall also provide the following information for each individual source of sludge:

(1) Identify the type of treatment carried out at the sewage treatment plant prior to dewatering.

(2) Identify the dewatering processes utilized, including a description of the equipment or technique used, the chemical reagents employed and a determination of the percent solids achieved.

(3) Identify the maximum, minimum and average delivery rates anticipated. Quantities shall be expressed on a dry weight basis and the percent solids delivered to the facility.

Cross References

This section cited in 25 Pa. Code § 281.232 (relating to continuing analysis of sludge).

§ 281.123. Daily volume.

The application shall contain a proposed maximum daily volume for the facility, and a detailed justification for volume, under § § 271.126 and 271.127 (relating to requirement for environmental assessment; and environmental assessment).

Source

The provisions of this § 281.123 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685.

SOIL AND WATER

§ 281.131. Revegetation plan.

An application shall contain a plan for revegetation of all or part of the site under § § 281.241 and 281.242 (relating to general requirements; and standards for successful revegetation). The plan shall identify the species that are proposed to be planted, seeding rates and method of revegetation.

Cross References

This section cited in 25 Pa. Code § 281.142 (relating to postclosure land use plan).

§ 281.132. Soil erosion and sedimentation control plan.

(a) The applicant shall submit a plan to manage surface water and control erosion during all phases of construction and operation at the facility. The plan shall be based on the requirements of Chapter 102 (relating to erosion control), § 281.252 (relating to soil erosion and sedimentation control) and other applicable State and Federal requirements. Calculations indicating water quantities shall be based on the 24-hour precipitation event in inches to be expected once in 25 years. More stringent design standards may be required by the Department based on the most recent edition of the United States Department of Agriculture Soil Conservation Services' *Engineering Field Manual for Conservation Practices*.

(b) The plan shall include fully dimensioned diversion ditches, indicating length, gradient and cross section for configuration by reach, and capacities for ditch volume by reach. Calculations which are necessary to support design and siting shall be included in the plan.

Source

The provisions of this § 281.132 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (266317).

§ 281.133. Leachate treatment plan.

An application shall contain a plan for collection, storage and treatment of leachate and wastewater from the facility in a manner that complies with The Clean Streams Law (35 P. S. § § 691.1—691.1001) and regulations thereunder.

§ 281.134. Soil and groundwater monitoring plan.

(a) If required by the Department, the applicant shall submit a groundwater monitoring plan to detect groundwater degradation from the facility.

(b) If required by the Department, the applicant shall submit a soil monitoring plan capable of detecting the contamination from the facility.

Source

The provisions of this § 281.134 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (266318).

CONTINGENCIES AND CLOSURE

§ 281.141. Contingency plan.

An application shall contain a contingency plan consistent with § § 281.261—281.263 (relating to emergency procedures). The plan shall include a Preparedness, Prevention, and Contingency (PPC) Plan that is consistent with the Department’s most recent guidelines for the development and implementation of PPC plans.

§ 281.142. Postclosure land use plan.

An application shall contain a detailed description of the proposed use following closure of the proposed facility, including a discussion of the utility and capacity of the revegetated land to support a variety of alternative uses, and the relationship of the use to existing land use policies and plans. The description shall explain the following:

(1) How the proposed postclosure land use is to be achieved and the necessary support activities which may be needed to achieve the proposed land use.

(2) The consideration which has been given to making the proposed postclosure land use consistent with landowner plans and applicable State and local land use plans and programs.

(3) The specific postclosure land use of areas that are not proposed to be revegetated under § 281.131 (relating to revegetation plan).

Cross References

This section cited in 25 Pa. Code § 281.241 (relating to general requirements).

Subchapter C. OPERATING REQUIREMENTS FOR GENERAL COMPOSTING FACILITIES

GENERAL PROVISIONS

Sec.

DAILY OPERATIONS

COMPOSTING PROVISIONS

REVEGETATION

SOIL AND WATER PROTECTION

EMERGENCY PROCEDURES

RECORDKEEPING AND REPORTING

CESSATION AND CLOSURE

Cross References

This subchapter cited in 25 Pa. Code § 281.1 (relating to scope); and 25 Pa. Code § 281.114 (relating to description of geology, soils and groundwater).

GENERAL PROVISIONS

§ 281.201. Basic limitations.

(a) A person or municipality may not own or operate a general composting facility unless the Department has first issued a permit to the person or municipality for the facility under this chapter.

(b) A person or municipality that operates a general composting facility shall comply with the following:

(1) The operating requirements of the act, this subchapter and the applicable requirements of Chapter 271 (relating to municipal waste management—general provisions).

(2) The plans and specifications in the permit, the terms and conditions of the permit, the environmental protection acts, this title and orders issued by the Department.

(c) A person or municipality that operates a general composting facility may not allow residual waste or special handling waste to be handled at the facility unless the Department has specifically approved special measures for managing the waste as part of the permit.

(d) A person or municipality that operates a general composting facility may not:

(1) Mix solid waste with, or store solid waste in close proximity to, other solid waste to create a risk of fire or explosion, or a risk of the accumulation of poisonous or otherwise harmful vapors or gases.

(2) Allow explosive waste to be processed at the facility.

(e) Hazardous waste subject to Article VII (relating to hazardous waste management) may not be disposed, processed or stored where general composting facilities are operated.

(f) The approved mitigation measures identified in the permit application shall be completed before a facility may accept waste, unless a later date is authorized in writing by the Department for technical reasons.

(g) The following radioactive material controlled under specific or general license or order authorized by any Federal, State or other government agency may not be processed at the facility, unless specifically exempted from disposal restrictions by an applicable Pennsylvania or Federal statute or regulation:

(1) Naturally-occurring and accelerator-produced radioactive material.

(2) Byproduct material.

(3) Source material.

(4) Special nuclear material.

(5) Transuranic radioactive material.

(6) Low-level radioactive waste.

(h) The following radioactive material may not be processed at the facility, unless approved in writing by the Department and the processing does not endanger the environment, facility staff or public health and safety:

(1) Short-lived radioactive material from a patient having undergone a medical procedure.

(2) TENORM.

(3) Consumer products containing radioactive material.

(i) The limitations in subsections (g) and (h) do not apply to radioactive material as found in the undisturbed natural environment of this Commonwealth.

Source

The provisions of this § 281.201 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (226356) and (255081).

Cross References

This section cited in 25 Pa. Code § 281.111 (relating to operating plan).

§ 281.202. Areas where general composting facilities are prohibited.

(a) Except for areas that were permitted prior to April 9, 1988, a general composting facility may not be operated as follows:

(1) *Floodplain*. In the 100-year floodplain of waters of this Commonwealth unless demonstrated that the compost facility can be protected during flooding.

(2) *Wetland*.

(i) In or within 300 feet of an exceptional value wetland, as defined in § 105.17 (relating to wetlands).

(ii) For a general composting facility permitted on or after December 23, 2000, other than an expansion of a general composting facility that was permitted prior to December 23, 2000, in or within 100 feet of a wetland other than an exceptional value wetland, unless storage and processing will not occur within that distance or storage and processing take place in an enclosed facility and one of the following is true:

(A) If the operation is in or along the wetland, the operator has received a permit from the Department under Chapter 105 (relating to dam safety and waterway management).

(B) If the operation is not in or along the wetland, no adverse hydrologic or water quality impacts will result.

(3) *Occupied dwelling*. Within 300 feet measured horizontally from an occupied dwelling, unless the owner of the dwelling has provided a written waiver consenting to the facility being closer than 300 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(4) *Perennial stream*. Within 100 feet of a perennial stream, unless one of the following applies:

(i) Storage and processing will not occur within 100 feet of a perennial stream and no adverse impacts to the perennial stream will result.

(ii) Storage and processing take place in an enclosed facility and no adverse hydrologic or water quality impacts will result.

(5) *Property line*. Within 50 feet of a property line unless the operator demonstrates one of the following:

(i) That actual processing of waste is not occurring within 50 feet of a property line.

(ii) That storage and processing ocurring within 50 feet of a property line take place in an enclosed facility.

(iii) That the owner of the adjacent property has provided a written waiver consenting to the facility being closer than 50 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the owner.

(6) *Water source*. Within 1/4 mile upgradient and within 300 feet downgradient of a private or public water source.

(7) *Water table*. In an area where the pad or vessel will be in contact with the seasonal high water table or perched water table.

(8) *School, park or playground.*

(i) For a municipal waste transfer facility permit issued on or after December 23, 2000, except an expansion of a municipal waste transfer facility permitted prior to December 23, 2000, within 300 yards of the following:

(A) A building which is owned by a school district or school and used for instructional purposes.

(B) A park.

(C) A playground.

(ii) The current property owner of a school building, park or playground may waive the 300-yard prohibition by signing a written waiver. Upon receipt of the waiver, the Department will waive the 300-yard prohibition and will not use the prohibition as the basis for the denial of a new permit.

(b) Except as provided in subsection (c), this section does not apply to a feature that may come into existence after the date of the first newspaper notice under § 271.141 (relating to public notice by applicant).

(c) This section does not apply to a feature that may come into existence after the date of the first newspaper notice under this subsection if the following apply:

(1) The person or municipality publishes a notice of intent to file an application for a general composting facility permit. The notice, which is separate from the newspaper notice required by § 271.141, shall be published once a week for 3 consecutive weeks in a newspaper of general circulation in the area where the facility is proposed to be located. The notice shall include a brief description of the location and proposed operation of the facility.

(2) The person or municipality files an administratively complete application with the Department within 1 year from the date of the first newspaper notice under this subsection.

Source

The provisions of this § 281.202 amended January 24, 1997, effective January 25, 1997, 27 Pa.B. 521; amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (255081) to (255082).

Cross References

This section cited in 25 Pa. Code § 281.112 (relating to maps and related information).

DAILY OPERATIONS

§ 281.211. Signs and markers.

(a) A person or municipality that operates a general composting facility shall identify the facility for the duration of operations by posting and maintaining a sign which will be clearly visible and can be easily seen and read at the junction of each access road and public road unless otherwise approved by the Department. The sign shall be constructed of a durable, weather resistant material. The sign shall show the name, business address and telephone number of the person or municipality operating the facility, the operating hours of the facility and the number of the current permit authorizing operations at the facility.

(b) Permanent physical markers for the grid coordinate system and permit area markers shall be:

(1) Posted and maintained during the duration of the operations to which they pertain.

(2) Clearly visible, readable and uniform throughout the operation.

(3) Permanently fixed and made of a durable material.

(c) The perimeter of the site shall be clearly marked before the beginning of operations.

(d) The permanent physical markers for the grid coordinate system shall be installed at the locations set forth in the permit, prior to the beginning of operations. The base line of the grid system shall be marked with two permanent monuments that show elevation.

Source

The provisions of this § 281.211 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (255082).

§ 281.212. Access roads.

(a) An access road shall be designed, constructed and maintained to prevent erosion to the maximum extent possible and to prevent contributions of sediment to streams or runoff outside the permit area.

(b) A crossing of a perennial or intermittent stream or a wetland shall be made using bridges, culverts or similar structures. Bridges, culverts or other encroachments or water obstructions shall meet the requirements of Chapter 105 (relating to dam safety and waterway management).

(c) An access road shall have a drainage system that is compatible with the natural drainage system, structurally stable and which will pass safely the peak flow from a 25-year, 24-hour precipitation event. The drainage system shall comply with Chapter 102 (relating to erosion control and sediment control).

(d) An access road shall be paved or surfaced with asphalt, gravel, cinders or other equivalent material approved by the Department in the permit. An access road shall be capable of withstanding the load limits projected by the applicant under § 281.115 (relating to plan for access roads). The maximum sustained grade of an access road may not exceed 12%.

(e) An access road negotiable by loaded collection vehicles shall be provided from the entrance gate of the area to each unloading area, treatment facility or impoundment. An access road shall also be provided to surface and groundwater monitoring points approved by the Department under § 281.254 (relating to soil and groundwater monitoring).

(f) Roads shall be constructed on a base that is capable of withstanding anticipated loads.

(g) Prior to the construction of a road, topsoil shall be removed, stored on a stable site and protected against erosion and compaction until restoration of the road.

(h) The disturbed areas adjacent to a road shall be vegetated or otherwise stabilized to prevent erosion.

(i) Access roads shall be designed, constructed and maintained to allow the orderly egress and ingress of vehicular traffic when the facility is in operation, including during inclement weather.

Source

The provisions of this § 281.212 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226359).

Cross References

This section cited in 25 Pa. Code § 281.115 (relating to plan for access roads).

§ 281.213. Access control.

(a) A gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when an attendant is not on duty.

(b) The operator shall construct and maintain a fence or other suitable barrier around the area sufficient to prevent unauthorized access.

(c) Access to the site shall be limited to times when an attendant is on duty.

Cross References

This section cited in 25 Pa. Code § 281.112 (relating to maps and related information); and 25 Pa. Code § 281.116 (relating to access control plan).

§ 281.214. Measurement and inspection of waste.

(a) An operator of a general composting facility that has received, is receiving or will receive 30,000 or more cubic yards of solid waste in a calendar year shall weigh solid waste when it is received. The scale used to weigh solid waste shall conform to 3 Pa.C.S. Chapter 41 (relating to the Consolidated Weights and Measures Act) and 70 Pa. Code Part I (relating to weighmasters). The operator of the scale shall be a licensed public weighmaster under 3 Pa.C.S. Chapter 41 and 70 Pa. Code Part I.

(b) The operator of a facility that is not required by subsection (a) to weigh waste when it is received shall accurately measure waste by volume or weight prior to unloading.

(c) The operator of a general composting facility shall inspect and monitor incoming waste to ensure that the receipt of waste is consistent with this article and the permit.

Source

The provisions of this § 281.214 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226360).

§ 281.215. Equipment.

(a) The operator shall maintain on the site equipment necessary for operation of the facility in accordance with the permit. The equipment shall be maintained in an operable condition.

(b) If a breakdown of the operator’s equipment occurs, the operator shall utilize standby equipment as necessary to comply with the act, the environmental protection acts, this subchapter and its permit conditions.

(c) Equipment shall be operated and maintained to prevent solid waste from being unintentionally removed from the site.

(d) Equipment shall be cleaned at frequencies specified in the permit based on scheduled or emergency maintenance periods.

(e) Provision shall be made for the routine operational maintenance of the facility.

Source

The provisions of this § 281.215 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226360).

§ 281.216. Operations.

(a) The approach and unloading area shall be adequate in size and design to facilitate the rapid unloading of solid waste from collection vehicles and the unobstructed maneuvering of the vehicles and other equipment.

(b) The unloading and storage areas shall be constructed of impervious material which is capable of being cleaned by high pressure water spray and shall be equipped with drains or sumps connected to a sanitary sewer system or treatment facility to facilitate the removal of water.

(c) An attendant or clearly marked signs shall direct vehicles to the unloading area.

(d) The operator shall ensure that collection vehicles unload waste promptly in unloading areas.

(e) Solid waste shall be confined to the unloading area or a storage area approved as part of the operator's permit.

(f) If bulky waste is handled or processed at the facility, the operator shall remove the waste daily or take other action sufficient to prevent nuisances or unsightliness.

(g) The operator shall maintain sufficient distance between windrows or piles to allow the proper use of equipment during the deposit, removal and turning of the compost.

(h) The operator shall inspect the facility daily to detect hot spots in a storage or composting area, dust accumulation, vectors, litter and other problems, and promptly take necessary corrective actions.

§ 281.217. Air resources protection.

(a) The operator shall control fugitive air contaminants and otherwise prevent and control air pollution under the Air Pollution Control Act (35 P. S. § § 4001—4014), Article III (relating to air resources) and § 281.218 (relating to nuisance minimization and control).

(b) A person or municipality may not cause or allow open burning at the facility.

Source

The provisions of this § 281.217 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226361).

§ 281.218. Nuisance minimization and control.

(a) The operator shall control and minimize the attraction, harborage or breeding of vectors.

(b) The operator shall control and minimize conditions not otherwise prohibited by this subchapter that are harmful to the environment or public health, or which create safety hazards, odors, dust, noise, unsightliness and other public nuisances.

Source

The provisions of this § 281.218 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226361).

Cross References

This section cited in 25 Pa. Code § 281.117 (relating to air resources protection).

§ 281.219. Salvaging.

(a) Salvaging of materials may not be allowed or conducted unless salvaging is controlled by the operator to prevent interference with prompt and sanitary operations and is conducted to prevent a health hazard or nuisance.

(b) Salvaged materials shall be promptly removed from the unloading area and either stored in an approved area under Chapter 285 (relating to storage, collection and transportation of municipal waste) or transported offsite.

§ 281.220. Litter.

(a) The operator may not allow solid waste, compost or other materials to be blown or otherwise deposited offsite.

(b) Fences or other barriers sufficient to control blowing litter shall be located in the area immediately downwind from the composting and storage areas unless operations are conducted within an enclosed building or the solid waste or compost being stored cannot create blowing litter.

(c) At least weekly, blown off and intercepted litter shall be collected from fences, roadways, tree-lined barriers and other barriers, and disposed or stored in accordance with the act and regulations thereunder, unless a greater frequency is set forth in the permit.

Source

The provisions of this § 281.220 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (226361) to (226362).

Cross References

This section cited in 25 Pa. Code § 281.118 (relating to litter control plan).

§ 281.221. Radiation monitoring and response.

(a) An operator of a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, shall implement the action plan approved under § 281.119 (relating to radiation protection action plan).

(b) An operator of a commercial composting facility that will receive sewage sludge or unseparated municipal waste, or both, shall monitor incoming waste in accordance with the Department's "*Guidance Document on Radioactivity Monitoring at Solid Waste Processing and Disposal Facilities*," Document Number 250-3100-001 or in a manner at least as protective of the environment, facility staff and public health and safety. Monitoring shall meet the requirements of this section and the facility's approved radiation protection action plan.

(c) Radiation detector elements shall be as close as practical to the waste load and in an appropriate geometry to monitor the waste. The radiation monitoring system shall be set to alarm at a level no higher than 10 microroentgen per hour (μR/hr) above the average background at the facility when any of the radiation detector elements is exposed to a Cesium-137 gamma radiation field. Radiation detector elements shall be shielded to

maintain the average background below 10 µR/hr. If capable of energy discrimination, the radiation monitoring system shall be set to detect gamma rays of a 50 kiloelectron volt (keV) energy and higher.

(d) An operator shall have portable radiation monitors capable of determining the radiation dose rate and presence of contamination on a vehicle that has caused an alarm. Upon a confirmed exceedance of the alarm level in subsection (c), a radiological survey of the vehicle shall be performed.

(e) An operator shall notify the Department immediately and isolate the vehicle when radiation dose rates of 20 µSv/hr (2 mrem/hr) or greater are detected in the cab of a vehicle, 500 µSv/hr (50 mrem/hr) or greater are detected from any other surface, or contamination is detected on the outside of the vehicle.

(f) Monitoring equipment shall be calibrated at a frequency specified by the manufacturer, but not less than once a year.

(g) If radioactive material is detected at a composting facility, the vehicle containing the radioactive material may not leave the facility without written Department approval and an authorized United States Department of Transportation exemption form.

Source

The provisions of this § 281.221 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685.

§ 281.222. Daily volume.

A person or municipality operating a composting facility may not receive solid waste at the facility in excess of the maximum daily volume approved in the permit.

Source

The provisions of this § 281.222 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685.

COMPOSTING PROVISIONS

§ 281.231. Composting pad or vessel.

(a) Solid waste may not be composted, loaded, unloaded or stored, except on a composting pad or vessel that meets the requirements of this section.

(b) The composting pad or vessel shall be adequate in size and capacity to manage the projected solid waste, compost and residue volumes.

(c) A composting pad or vessel shall be:

(1) For a pad, capable of preventing the migration of waste and leachate generated from the composting process through the pad.

(2) Designed, constructed and maintained to protect the integrity of the pad or vessel during the projected life of the facility.

(3) Designed to collect leachate.

(4) For a pad, constructed of nonearthen material.

(5) Inspected for uniformity, damage and imperfections during construction and installation.

(6) Designed and operated so that the physical and chemical characteristics of the composting pad or vessel and its ability to restrict the flow of solid waste, solid waste constituents or leachate is not adversely affected by the leachate.

(d) The operator shall inspect the composting pad or vessel in a manner and frequency approved by the Department in the permit.

(e) Upon completion of the construction of a composting pad or vessel, the operator shall:

(1) Submit a certification by a registered professional engineer on forms provided by the Department. The certification shall describe the composting pad or vessel being certified, using drawings and plans if appropriate and shall state that the actual construction was observed by the engineer or persons under his direct supervision, and that the construction was carried out in a manner that is consistent with the permit.

(2) Notify the Department that the facility is ready for inspection. Solid waste may not be composted, and no solid waste or compost may be stored, loaded or unloaded on the composting pad or in the composting vessel, until the Department has conducted an inspection and has transmitted its written approval to the permittee indicating that the construction was done according to the permit.

Source

The provisions of this § 281.231 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (226362) to (226363).

Cross References

This section cited in 25 Pa. Code § 281.121 (relating to composting pad design).

§ 281.232. Continuing analysis of sludge.

If sewage sludge is composted at the facility:

(1) The operator shall submit to the Department a chemical analysis of the sludge under § 281.122 (relating to chemical analysis of sludge), every 4 months following the date of permit issuance, unless the Department approves a different schedule in the permit.

(2) The operator shall perform and submit to the Department additional analyses if there is a significant change in the quality of sludge.

§ 281.233. Disposal of residue.

Residue from processing of solid waste at general composting facilities shall be disposed or processed at a permitted facility for municipal or residual waste.

§ 281.234. Sale or utilization of compost.

Prior to sale or utilization of compost, the operator shall obtain a general permit from the Department under Chapter 271, Subchapters I or J (relating to beneficial use of municipal waste; and beneficial use of sewage sludge by land application).

Source

The provisions of this § 281.234 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226363).

§ 281.235. Availability of plans and designs.

The operator shall maintain a copy of engineering plans and designs for the facility on the site.

REVEGETATION

§ 281.241. General requirements.

(a) Except to the extent authorized in the postclosure plan approved under § 281.142 (relating to postclosure land use plan), vegetation shall be established on land affected by a general composting facility.

(b) Revegetation shall provide for a diverse, effective and permanent vegetative cover of the same seasonal variety native to the area of land to be affected and capable of self-regeneration and plant succession. Introduced species may be used when desirable and necessary to achieve the approved postclosure land use. Vegetative cover shall be considered of the same seasonal variety when it consists of a mixture of species that is equal or superior to native vegetation during each season of the year.

(c) Revegetation shall provide a quick germinating, fast-growing vegetative cover capable of stabilizing the soil surface from erosion.

(d) Disturbed areas shall be seeded and planted when weather and planting conditions permit, but the seeding and planting of disturbed areas shall be performed no later than the first normal period for favorable planting after final grading.

(e) Fertilizer and lime shall be applied to disturbed areas as necessary to maintain plant growth.

(f) Mulch shall be applied to regraded areas at rates adequate to control erosion, promote germination of seeds and increase the moisture retention of the soil.

Cross References

This section cited in 25 Pa. Code § 281.131 (relating to revegetation plan); and 25 Pa. Code § 281.282 (relating to cessation of operations).

§ 281.242. Standards for successful revegetation.

(a) The standard for successful revegetation shall be the percent of groundcover of the vegetation which exists on the area affected by the facility. The Department will not approve less than a 70% groundcover of permanent plant species in the approved plan.

(b) No more than 1% of the total area may have less than 30% groundcover. No single or contiguous area exceeding 3,000 square feet may have less than 30% groundcover.

Cross References

This section cited in 25 Pa. Code § 281.131 (relating to revegetation plan); and 25 Pa. Code § 281.282 (relating to cessation of operations).

SOIL AND WATER PROTECTION

§ 281.251. General requirements.

(a) The operator may not cause or allow a point or nonpoint source discharge of pollution from or on the facility to surface waters of this Commonwealth.

(b) A general composting facility shall be operated to prevent and control water pollution. An operator shall operate and maintain necessary surface and groundwater treatment facilities until surface or groundwater pollution from or on the facility has been permanently abated.

(c) Neither compost nor municipal waste may be stored where continuous or intermittent contact could occur between the compost or waste and groundwater.

(d) The operator may not cause or allow water pollution within or outside of the site.

Source

The provisions of this § 281.251 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (226364).

Cross References

This section cited in 25 Pa. Code § 281.253 (relating to sedimentation ponds).

§ 281.252. Soil erosion and sedimentation control.

The operator shall manage surface water and control erosion and sedimentation to:

(1) Divert surface water away from the storage and composting areas with measures and structures necessary to handle surface water flows based on a 25-year, 24-hour precipitation event, and supported by written calculations.

(2) Meet the requirements of Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management).

(3) Prevent erosion to the maximum extent possible, including where possible, using revegetation.

Cross References

This section cited in 25 Pa. Code § 281.132 (relating to soil erosion and sedimentation control plan).

§ 281.253. Sedimentation ponds.

(a) Surface drainage from the disturbed area shall be passed through a sedimentation pond or a series of sedimentation ponds before leaving the site. The Department may waive the required use of sedimentation ponds when a person demonstrates to the Department that sedimentation ponds are not necessary to meet the requirements of § 281.251 (relating to general requirements).

(b) Sedimentation ponds shall be constructed, operated and maintained under this section, Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management) and the minimum design criteria contained in the United States Soil Conservation Service's Engineering Standard 378, 'Pond' Pa., as amended.

(c) Sedimentation ponds and other treatment facilities shall be maintained until removal of the ponds and facilities is approved by the Department.

(d) A pond shall include a nonclogging, dewatering device approved by the Department that will allow the draining of the water from the inflow. The dewatering device may not be located at a lower elevation than the maximum elevation of the sedimentation storage volume.

(e) The ponds shall be designed, constructed and maintained to prevent short circuiting to the maximum extent possible.

(f) The design, construction and maintenance of a sediment pond under this section does not relieve the operator of the responsibility for complying with the applicable treatment requirements and effluent limitations established under § 281.251.

(g) At a minimum, sedimentation ponds shall be capable of treating the runoff resulting from a 25-year, 24-hour precipitation event.

(h) A sedimentation pond shall be designed and inspected during construction under the supervision of a registered professional engineer, who shall certify to the Department upon completion of construction that the pond was constructed as approved in the permit.

Source

The provisions of this § 281.253 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (266319).

§ 281.254. Soil and groundwater monitoring.

(a) If required by the Department as part of the permit, the operator shall conduct soil or groundwater monitoring, or both. The monitoring shall be in accordance with § § 273.282—273.288, as required by the Department, and the terms and conditions of the permit, and shall continue for the period specified in § 281.282 (relating to cessation of operations).

(b) For purposes of interfacing with § § 273.282—273.288, the following terms apply:

(1) The term “disposal area” shall be substituted with “area where storage and processing occur.”

(2) The term “municipal waste landfill” shall be substituted with “composting facility.”

(3) The term “disposed” shall be substituted with “stored or processed.”

Source

The provisions of this § 281.254 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (266320).

Cross References

This section cited in 25 Pa. Code § 281.212 (relating to access roads); and 25 Pa. Code § 281.282 (relating to cessation of operations).

§ 281.255. Water supply replacement.

(a) A person or municipality operating a composting facility which adversely affects a water supply by degradation, pollution or other means shall restore or replace the affected water supply with an alternative source that is of like quantity and quality to the original supply at no additional cost to the owner.

(b) A temporary water supply shall be provided as soon as practicable but not later than 48 hours after receipt of one of the following:

(1) Information showing that the operator is responsible for adversely affecting the water supply.

(2) Notice from the Department that the operator is responsible for adversely affecting the water supply.

(c) A permanent water supply shall be provided as soon as practicable but not later than 90 days after the receipt of one of the following:

(1) Information showing that the operator is responsible for adversely affecting the water supply.

(2) Notice from the Department that the operator is responsible for adversely affecting the water supply.

(d) Permanent water supplies include development of a new well with a distribution system, interconnection with a public water supply or extension of a private water supply, but do not include provision of bottled water or a water tank supplied by a bulk water hauling system, which are temporary water supplies.

Source

The provisions of this § 281.255 adopted December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685.

EMERGENCY PROCEDURES

§ 281.261. Hazard prevention.

A composting facility shall be designed, constructed, maintained and operated to prevent and minimize the potential for fire, explosion or release of solid waste constituents to the air, water or soil of this Commonwealth that could threaten public health or safety, public welfare or the environment.

Cross References

This section cited in 25 Pa. Code § 281.141 (relating to contingency plan).

§ 281.262. Emergency equipment.

(a) Except as provided in subsection (b), a person or municipality operating a general composting facility shall have available in proper working condition the following equipment at the immediate operating area of the facility:

(1) An internal communications or alarm system capable of providing immediate emergency instruction by voice or signal to facility personnel.

(2) A communications system capable of summoning emergency assistance from local police, fire departments, emergency medical services and from State and local emergency response agencies.

(3) Portable fire extinguishers, fire control equipment, spill control equipment, decontamination equipment and self-contained breathing apparatus. For fire control equipment requiring water, the facility shall have a water supply of adequate quantity and pressure to supply the equipment.

(b) The Department may waive or modify the requirements of subsection (a) in the permit if the operator demonstrates to the Department's satisfaction that the requirements are not necessary to protect public health and safety, public welfare or the environment.

(c) Equipment and material required by this section shall be tested and maintained so that it is operable in time of emergency.

(d) Adequate space shall be maintained to allow the unobstructed movement of emergency personnel and equipment to an operating area of the facility.

Cross References

This section cited in 25 Pa. Code § 281.141 (relating to contingency plan).

§ 281.263. Implementation of contingency plan.

(a) The operator of the facility shall immediately implement the applicable provisions of the approved contingency plan when there is an emergency. For purposes of this section, an emergency shall include a fire, spill or other hazard, that threatens public health and safety, public welfare or the environment and personal injury.

(b) During an emergency, the operator shall:

(1) Assess actual or potential hazards to public health and safety, public welfare and the environment that are occurring or may occur.

(2) Ensure that fires, spills or other hazards do not occur, reoccur or spread to other solid waste at the facility.

(3) Immediately telephone the Department and county emergency management agency, and report the following information:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and permit number of the facility.

(iii) The date, time and location of the emergency.

(iv) A brief description of the nature of the emergency, the type and quantity of the solid waste involved and what dangers to public health and safety, public welfare and the environment exist or may occur.

(v) The nature of injuries.

(vi) The parts of the emergency plan being implemented to alleviate the emergency.

(c) After an emergency, the operator of the facility shall do the following:

(1) Clean up the area affected by the emergency and treat, store or dispose of recovered solid waste, contaminated soil, contaminated water or other material in a manner approved by the Department.

(2) Prevent processing or storage of solid waste in the area affected by the emergency until the operator has cleaned up the area, and the Department has inspected and approved the cleanup.

Source

The provisions of this § 281.263 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (238995).

Cross References

This section cited in 25 Pa. Code § 281.141 (relating to contingency plan).

RECORDKEEPING AND REPORTING

§ 281.271. Daily operational records.

(a) A person or municipality that operates a general composting facility shall make and maintain an operational record for each day that municipal waste is received, processed or transported offsite.

(b) The daily operational record shall include the following:

(1) The type and weight or volume of the solid waste received.

(2) The county in which the solid waste originated, or if the waste originated outside of this Commonwealth, the state.

(3) The transporters of the solid waste.

(4) The weight or volume of each material recycled, marketed or disposed of as a result of the process.

(5) A record of deviations from the approved design or operational plans.

(6) A record of activities for which entries are needed to comply with the annual operation report required in § 281.272 (relating to annual operation report).

(7) A record of actions taken to correct violations of the act, the environmental protection acts and this title.

(8) A description of waste handling problems or emergency disposal activities.

(9) A record of each incident in which radioactive material is detected in waste loads. The record shall include:

(i) The date, time and location of the occurrence.

(ii) A brief narrative description of the occurrence.

(iii) Specific information on the origin of the material, if known.

(iv) A description of the radioactive material involved, if known.

(v) The name, address and telephone numbers of the supplier or handler of the radioactive material and the name of the driver.

(vi) The final disposition of the material.

(c) The operator shall maintain accurate operational records sufficient to determine whether municipal waste is being stored in compliance with Chapter 285, Subchapter A (relating to storage of municipal waste).

(d) Daily operational records shall be retained for the life of the facility bond, or longer if determined by the Department to be necessary to meet the standards of the environmental protection acts. These records shall be made available to the Department upon request.

Source

The provisions of this § 281.271 amended November 28, 1997, effective November 29, 1997, 27 Pa.B. 6190; amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (238995) to (238996).

§ 281.272. Annual operation report.

(a) A person or municipality that operates a general composting facility shall submit to the Department an annual operation report on or before June 30 of each year.

(b) The annual operation report, which shall be submitted on a form supplied by the Department, shall include the following:

(1) The county in which the waste originated, or if the waste originated outside of this Commonwealth, the state.

(2) The weight or volume of each type of waste received.

(3) The weight or volume of each material recycled, marketed or disposed of as a result of the process.

(4) A current certificate of insurance, as specified in § 271.374(a) (relating to proof of insurance coverage), evidencing continuous coverage for public liability insurance as required by § 271.371 (relating to insurance requirement).

(5) Changes in the previous year concerning the information required by § § 271.124 and 271.125 (relating to identification of interests; and compliance information). The report shall state if no changes have occurred.

(6) A change in the ownership of the land upon which the facility is located or a change in a lease agreement for the use of the land that may affect or alter the operator’s rights upon the lands.

(7) A written update of the total bond liability for the facility under § 271.331 (relating to bond and trust amount determination). If additional bond is determined to be necessary, it shall be submitted to the Department within 90 days after the annual report is due.

(8) Certification that the operator has received all analyses required by § 287.54 (relating to chemical analysis of waste) for each type of residual waste or special handling waste received at the facility during the calendar year.

(9) A record of detected radioactive materials.

(c) The annual operation report shall be accompanied by a nonrefundable annual permit administration fee of $700 in the form of a check payable to the ‘‘Commonwealth of Pennsylvania.’’

Source

The provisions of this § 281.272 adopted April 8, 1988, effective April 9, 1988, 18 Pa. B. 1681; amended July 2, 1992, effective July 4, 1992, 22 Pa. B. 3389; amended November 28, 1997, effective November 29, 1997, 27 Pa.B. 6190; amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial pages (238996) to (238997).

Cross References

This section cited in 25 Pa. Code § 281.271 (relating to daily operational records).

CESSATION AND CLOSURE

§ 281.281. Temporary shutdown.

(a) An alternate permitted solid waste processing or disposal facility shall be available for use if the facility is shut down.

(b) If the composting facility is out-of-service for a longer period than the storage capacity of the site will allow, no additional solid waste may be received at the facility.

§ 281.282. Cessation of operations.

(a) Upon cessation of composting operations at the facility, the operator shall remove solid waste and structures or other materials which contain or are contaminated with solid waste, and shall provide for the processing or disposal of the waste or material under the act, the environmental protection acts and this title.

(b) Areas requiring vegetation shall be revegetated under § § 281.241 and 281.242 (relating to general requirements; and standards for successful revegetation).

(c) An operator required under § 281.254 (relating to soil and groundwater monitoring) to conduct soil monitoring may discontinue soil monitoring upon cessation of composting operations with the Department's approval. In deciding whether to allow the discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that groundwater degradation will manifest itself in the future and other relevant factors.

(d) An operator required under § 281.254 to conduct groundwater monitoring may discontinue groundwater monitoring after cessation of composting operations and cleanup only upon written approval by the Department. In deciding whether to allow discontinuance of monitoring, the Department will consider the operational history of the facility, the likelihood that groundwater contamination will manifest itself in the future, whether the remediation standards in § 271.342(b)(4) (relating to final closure recertification) are met and maintained and other relevant factors.

Source

The provisions of this § 281.282 amended December 22, 2000, effective December 23, 2000, 30 Pa.B. 6685. Immediately preceding text appears at serial page (238998).

Cross References

This section cited in 25 Pa. Code § 281.254 (relating to soil and groundwater monitoring).

8.1.00 LEAF AND YARD WASTE COMPOSTING FACILITY - REGISTRATION REQUIREMENTS
8.1.01 General
(A) Before constructing a composting facility and commencing leaf and yard waste composting, an owner or operator of a new leaf and yard waste composting facility shall register such facility within the Office of Waste Management of the Department of Environmental Management (DEM) and obtain from the DEM a written approval that such registration is complete. An owner or operator of an existing leaf and yard waste composting facility shall register such facility with the Department within ninety (90) days after the effective date of this section of the "Rules and Regulations for Solid Waste Management Facilities".
(B) The registration and one copy thereof shall be delivered personally or by mail to the Office of Waste Management within the Department of Environmental Management.
(C) It is the responsibility of the applicant to obtain all necessary permits or approvals required by federal, state, and local laws and regulations. Cooperation with the Office of Waste Management will not be construed as relieving the applicant of this obligation.
(D) Agricultural Composting Facilities will be permitted through the Office of Natural Resources Services of the Department of Environmental Management.
(E) Backyard composting, as defined in "Solid Waste Regulation No. 1, General Requirements", is not subject to the Leaf and Yard Waste Composting Facility rules and regulations, but may be subject to Department enforcement actions if best management practices acceptable to the Department are not followed.
(F) Composting of seaweed at leaf and yard waste composting facilities may be allowed with prior approval from the Department.

8.1.02 Elements of Registration - The registration of a leaf and yard waste composting facility includes submittal to DEM of the following:
(A) Initial Investigation Plans, per 8.1.03;
(B) Facility background information, per 8.1.04;
(C) Facility operating plan, per 8.1.05;
(D) Additional information, per 8.1.06.
8.1.03 Initial Investigation Plans- Copies of the latest United States Geological Topographic Map and the United States Department of Agriculture Soil Survey Map, with the site outlined and a site sketch (using a tax assessor’s map that shows the property lines) with the major components of the composting facility labeled and dimensioned, must be submitted to the Department.
8.1.04 Background Information - Notwithstanding the provisions of Rule 8.1.01, an owner or operator of a leaf and yard waste composting facility shall be considered by DEM to be in compliance if, within ninety (90) days of the effective date of this regulation, such owner or operator has submitted to the Department the following information with respect to such facility:
(A) Name, business address, and business telephone number of the facility's owner and the owner of the land on which the facility is located;
(B) Location of the facility (address);
(C) Acreage of the property on which the facility is located;
(D) Volume of leaves and/or yard waste composted, or expected to be composted, annually;
(E) Acreage of area used, or to be used, for a composting pad, leaf and/or yard waste processing activities, and storage of leaf and/or yard waste compost;
(F) Name of individual to be the primary contact with the Department;
(G) Name, business address, and business telephone number of any engineer or other consultant employed or retained to design and/or oversee construction and/or operation of the facility.
8.1.05 Operating Plan - An operation and maintenance plan setting forth, but not necessarily limited to:
(A) A description of any agreements affecting the control, use or operation of the facility;
(B) Operating days and hours;
(C) Procedures and processes for leaf and/or yard waste composting;

(D) Description of prevailing winds during the various seasons of the year with respect to impacts on off-site receptors and procedures to control odors, dust, vectors, and litter;
(E) Provisions for daily record keeping of weather conditions, wind direction, ambient air temperature, odor, dust, vector and litter issues, condition of compost pad, windrow monitoring and corrective actions needed and taken;
(F) Personnel and duties;
(G) Erosion, sedimentation and surface drainage control measures;
(H) Methods and procedures for fire prevention and control;
(I) End uses or markets for leaf and/or yard waste compost generated at the facility;
(J) A plan for quality assurance/quality control of finished compost, which also includes compost sampling and analysis details;
(K) A plan identifying the disposal method for waste received, in the event that the waste is contaminated (or becomes contaminated) with prohibited materials such as oil, hazardous waste, etc. or if the waste cannot be placed into a composting process in an acceptable time period per Rule 8.2.18.
8.1.06 Additional Information - The applicant shall submit such additional information relevant to the facility that the Department deems appropriate.
8.1.07 Re-Registration - Each owner or operator of a registered leaf and yard waste composting facility shall re-register such facility with the Department, if any of the following occurs:
(A) The annual volume of leaves and yard waste to be composted at the facility increases by twenty (20) percent of the annual volume indicated in the current registration;
(B) The design of the facility, or procedures or processes for leaf and yard waste composting are modified;
(C) There is a change in the identity of the facility's owner or operator or site location.
8.1.08 Registration Suspension or Revocation: - The Department may suspend or revoke a facility's registration due to owner/operator failure to comply with the Department's rules and regulations.
8.2.00 LEAF AND YARD WASTE COMPOSTING - OPERATING STANDARDS
8.2.01 General - All leaf and yard waste facilities shall meet all requirements set forth in this Rule in addition to the General Operating Standards in Solid Waste Regulation No. 1.
8.2.02 Siting and Buffers - No leaf and yard waste composting facility shall be operated at any location unless at such location:
(A) There are at least two hundred (200) feet between the staging, processing, curing, and storage areas of the facility and any surface water.
(B) There are at least one hundred (100) feet between the staging, processing, curing, and storage areas of the facility and the boundaries of the property at which the facility is located.
(C) There are at least two hundred fifty (250) feet between the staging, processing, curing, and storage areas of the facility and any occupied building other than an owner occupied building on the property at which the facility is located, except for facilities employing passive windrow composting, where such distance shall be five hundred (500) feet.
(D) There are at least two (2) feet vertically between the ground surface of the property at which the facility is located and the seasonal high groundwater table.
(E) There are at least three (3) feet vertically between the ground surface of the property at which the facility is located and the bedrock.
(F) There are at least two hundred (200) feet between the staging, processing, curing, and storage areas of the facility and any bedrock public wells.
(G) There are at least two hundred (200) feet separation from private wells and one thousand (1000) feet separation from gravel pack public wells (relative to the distance between the staging, processing, curing and storage areas of the facility and such wells). The composting site shall not be located on a public well field.
(H) Buffers, such as trees, walls, fences, natural or man made topographic features shall be installed to mitigate noise, odors, litter and other potential impacts on neighboring properties.
(I) The composting site is not located on a wellhead protection area (as defined in the Department's "Rules and Regulations for Groundwater Quality, August, 1996"), delineated consistent with the wellhead protection program for a public well. If the owner or applicant seeks a variance from this requirement, then the Department will require demonstration that leachate (if any) from the composting facility will not impact on the groundwater supply, under terms of the variance.
(J) A leaf and yard waste composting facility which is located on top of a solid waste disposal area closed in accordance with the Rhode Island Department of Environmental Management Solid Waste Management Facility

Rules and Regulations and Title 40 Code of Federal Regulations Part 258.60 shall have composting conducted on a pad to prevent disruption of the landfill cap and underlying waste. The pad shall be constructed of well compacted, well drained soil. It shall be no less than two (2) feet thick and sloped at two - five percent (2-5%) to promote surface drainage. The pad shall be constructed in addition to the minimum two (2) feet of final cover soil required at all closed solid waste disposal areas.

8.2.03 Endangered Species - No facility or practice shall cause or contribute to the taking of any endangered or threatened species pursuant to the Endangered Species Act, 16 U.S.C. 1531 et seq. and/or the regulations adopted to implement such Act, as is or as amended. The facility or practice shall not cause or contribute to the destruction or adverse modification of the critical habitat of endangered or threatened species.

8.2.04 Water Pollution

(A) Groundwater: A minimum of two (2) feet of soil is required between the lowest level of the compost pile and the highest water table level established during the seasonal high groundwater table period determined by the Department in accordance with the Department's Individual Sewage Disposal System (ISDS) Regulations. In addition, a minimum of three (3) feet of soil is required between the highest level of bedrock and the lowest level of the proposed composting surface. If the applicant seeks a variance of these separation distances, the Director may require the installation of an impermeable liner system or other means to prevent leachate from reaching the groundwater.

(B) Water Supply: Leaf and yard waste composting sites are prohibited from being located on public well fields. Minimum setbacks from the staging, processing, curing and storage areas to wells shall be as follows:

(1) One thousand (1000) feet from gravel packed public wells;

(2) Two hundred (200) feet from bedrock public wells;

(3) Two hundred (200) feet from private wells.

(C) Surface Water

(1) Leaf and yard waste composting activities shall not be within or impact any freshwater wetlands as defined by Rhode Island General Laws §2-1-18 et seq. Composting activities shall not occur on a site that is not in compliance with Rhode Island General Laws §2-1-18 et seq. and the Rules and Regulations promulgated pursuant to that Act.

8.2.05 Air Standards - Any composting facility shall not violate the following:

(A) State implementation plans approved or promulgated pursuant to 23-23, 1956 RIGL, as is or as amended; the rules and regulations to implement such Chapter, and any applicable provisions of the Air Act, 42 U.S.C. 7410, as are or as amended.

(B) The State Air Pollution Control Act, and the rules and regulations promulgated thereunder.

(C) Odors: The composting facility shall not emit or cause to be emitted into the atmosphere any air contaminants or combination of air contaminants which creates an objectionable odor beyond the property line of said facility. Odor evaluations shall be conducted by Department personnel to determine if an odor is objectionable by taking into account its nature, concentration, location, duration and source.

8.2.06 Fire Protection - A composting site shall not pose a hazard to the safety of persons or property from fires. In addition, the following requirements must be met:

(A) All composting sites shall submit site locator plans, site sketches, and operating plans to the local fire department for their review and notification so as to provide emergency service whenever called;

(B) All composting sites and site equipment (dozers and front end loaders) shall be equipped with fire extinguishers.

8.2.07 Safety Provisions - Composting facilities shall be designed, operated and maintained in such a manner as to protect the health and safety of users of the facility and personnel associated with the operation of the facility, and persons in close proximity to the facility.

8.2.08 Access:

(A) Time - The time of access to the facility by the public shall be limited to the hours of operation.

(B) Site Access - Access to the site shall be adequate to permit orderly entrance and exit, even during inclement weather. Roads shall be adequate to allow access by fire fighting equipment at all times.

(C) Site Security - The site shall be designed with perimeter fencing, and with gate controls to prevent unauthorized access and dumping at the site and to control the off-site escape of litter.

8.2.09 Signs - Sign(s) shall be erected at the entrance to the facility which are clearly legible and visible, and which contain the following:

(A) Name of facility and operator;

(B) Emergency phone number;
(C) Restricted (prohibited) materials (if applicable);
(D) Operating hours and days open.
8.2.10 Operating Plan
A facility shall be operated in conformity with its approved operating plan.
8.2.11 Site Water Supply- On-site water supply shall be available to maintain proper moisture levels in the windrow. If no on-site water is available, then a water truck may be substituted for windrow watering only. Water used to maintain windrow moisture shall not adversely impact the finished compost.
8.2.12 Compost Thermometer - A compost thermometer, three (3) - four (4) feet in length, capable of reading between 0° - 200° F shall be available on-site to record temperatures.
8.2.13 Monitoring Requirements - A written record must be maintained and available for Department review of:
(A) Windrow temperatures (must be recorded at least twice per week);
(B) Ambient air temperature at time of recording;
(C) Weather conditions;
(D) Odors (if detected);
(E) Pile moisture conditions and site observations.
(This requirement may be modified or waived with Department approval, provided satisfactory operating conditions have been maintained and demonstrated for a length of time satisfactory to the Department.)
8.2.14 Composting Pad
(A) The composting pad must be designed to support heavy equipment;
(B) The pad must be permeable enough to prevent ponding of surface water and firm enough to prevent ruts in all seasons;
(C) Pads must be graded between a two (2) percent and five (5) percent slope;
(D) Existing site soil that is not permeable enough to prevent standing water or firm enough to prevent ruts will require that a pad be constructed:
(1) A composting pad will be constructed of bank run gravel or the equivalent,
(2) The pad shall consist of a layer of at least twelve (12) inches of bank run gravel or the equivalent;
(E) Impermeable pads may be approved, and such pads:
(1) Must have systems for collection and management of run-off,
(2) Must be designed to ensure that on-site drainage systems do not clog
8.2.15 Drainage Control
(A) A drainage system must be developed to prevent sediment or run-off water from migrating off-site;
(B) Ground surface upgradient of the site must be prepared to prevent water seepage into composting and curing piles;
(C) Drainage control measures must be designed to accommodate the net increases in run-off from a twenty-four (24) hour, twenty-five (25) year storm event;
(D) Leaf and yard waste composting facilities shall not be located in one hundred (100) year flood plains, unless provisions have been made to prevent encroachment of flood waters onto the facility and approval has been obtained from the Office of Water Resources.
8.2.16 Windrows - Windrows shall be placed along the fall line of the composting pad (parallel to the slope of the pad). Windrow height and width shall be such that the windrow turning equipment used can mix all leaf and yard waste easily and thoroughly and in no case larger than twelve (12) feet in height and twenty-four (24) feet in width, and positioned so as not to allow water ponding between the windrows. Windrows shall also be positioned to allow for fire vehicle access.
8.2.17 Waste Screening and Inspection - The owner or operator shall implement waste receiving area control procedures that provide for the screening and inspection of the in-coming waste stream to prevent the acceptance of prohibited or unauthorized waste types, and to remove undesirable materials prior to the initiation of composting, as provided in the approved operating plan.
8.2.18 Waste Handling and Operation
(A) In no case shall leaf and yard waste be stored for a period longer than one (1) week before the wastes shall be watered, processed and formed into actively composting windrows. Material in plastic bags shall be debagged within one (1) week upon arrival at the site.
(B) Grass clippings shall not be accepted at the site unless there is a sufficient quantity of carbonaceous materials (leaves, composted leaves, chipped wood, etc.) to mix with the grass. Mixing ratios shall be one (1) part grass

clippings to a minimum three (3) parts carbonaceous material (by volume) unless otherwise approved by the Department.(C) Grass clippings shall be mixed with carbonaceous material and incorporated in the windrow within three (3) days of delivery. Windrow size and turning or aeration frequency shall be adjusted to continue aerobic composting and to prevent foul odors. Grass clippings shall not be accepted at compost sites employing the passive windrow method.
(D) Brush shall be chipped or shredded before being placed in windrows, and brush must be chipped within one (1) week after arrival, unless otherwise approved by the Department. Chipped brush may be stored for approved time periods in designated areas in quantities and pile sizes approved by the Department.
(E) Empty plastic bags shall be removed from the pad area and disposed properly. Trash receptacles shall be at the site to collect empty bags and miscellaneous trash removed from windrows during the composting process.
(F) In no event shall a windrow contain materials and wastes for no more than a twelve (12) month period, (composting shall be completed within this time frame);
(G) Moisture in the windrow shall be maintained in a manner that continues the composting process. The moisture level shall be maintained between forty (40) and sixty (60) percent by weight.
(H) In the windrow and turn method, windrows shall be turned as often as is necessary to continue aerobic composting and to prevent odors. The internal temperatures (optimum temperature 100° - 140° F) of windrows may be used as an indicator of aerobic composting. Temperatures shall be monitored at least twice per week. Windrow height and width shall be such that the windrow turning equipment used can mix all leaf and yard waste and in no case larger than twelve (12) feet in height and twenty-four (24) feet in width.
(I) In static aerated windrow composting, windrows shall be mechanically aerated as often as is necessary to continue aerobic composting and to prevent foul odors. Windrow height and width shall be such that the aeration equipment can properly aerate the leaf and yard waste.
(J) Windrows shall be turned as often as is necessary to mitigate the dispersion of dust and/or any potential bioaerosols. Windrows must be moist and/or water sprayed during the windrow turning process. Additional measures may be required, as necessary, to protect workers or visitors from dust and bioaerosols.
8.2.19 Dust Control - The operator must take suitable measures at all times to control dust at every composting facility, access roads to the facility and all other areas related to the facility's operations. This may be accomplished by spraying small amounts of water over the dust producing area and/or by the application of suitable chemicals or paving materials on access roads.
8.2.20 Control of Litter - Measures must be taken to eliminate the scattering of refuse. The operator shall provide for routine maintenance and general cleanliness of all areas related to the composting facility's operation.
8.2.21 Compost Storage Area
(A) Shall be no smaller than at least fifteen (15%) percent the size of the windrow composting area;
(B) Curing time will be a minimum of one (1) month.
8.2.22 Compost Distribution - Compost product offered for distribution shall meet the requirements of Rhode Island General Laws Chapter 22 "Rhode Island Soil Amendment Law" and those parameters outlined in Rule 8.8.00, "Compost Product Requirements and Distribution".
8.3.00 PUTRESCIBLE WASTE COMPOSTING FACILITY -REGISTRATION REQUIREMENTS
8.3.01 General Information
(A) Before constructing a composting facility and commencing putrescible waste composting, an owner or operator of a new putrescible waste composting facility shall register such facility with the Office of Waste Management of the Department of Environmental Management (DEM) and obtain from the DEM a written approval that such registration is complete. An owner or operator of an existing putrescible waste composting facility shall register such facility with the Department within ninety (90) days after the effective date of this section of the "Rules and Regulations for Solid Waste Management Facilities".
(B) The registration and one copy thereof shall be delivered personally or by mail to the Office of Waste Management within the Department of Environmental Management.
(C) It is the responsibility of the applicant to obtain all necessary permits or approvals required by federal, state and local laws and regulations. Cooperation within the Office of Waste Management will not be construed as relieving the applicant of this obligation.
(D) Agricultural Composting Facilities will be permitted through the Office of Natural Resources Services of the Department of Environmental Management.

(E) Backyard composting, as defined in "Solid Waste Regulation No. 1, General Requirements" is not subject to the Putrescible Waste Composting Facility rules and regulations, but may be subject to Department enforcement actions if best management practices acceptable to the Department are not followed.
8.3.02 Elements of Registration - The registration of a putrescible waste composting facility includes submittal to DEM the following:
(A) Initial Investigation Plans in accordance with Rule 8.3.03;
(B) Background information in accordance with Rule 8.3.04;
(C) Operating Plan in accordance with 8.3.05;
(D) Contingency Plan in accordance with Rule 8.3.06;
(E) Additional information, per Rule 8.3.07.
8.3.03 Initial Investigation Plans - Copies of the latest United States Geological Topographic Map and the United States Department of Agriculture Soil Survey Map, with the site outlined, and a site sketch (using a tax assessor's map showing the property line) with the major components of the composting facility labeled and dimensioned, must be submitted to the Department.
8.3.04 Background Information - Notwithstanding the provisions of Rule 8.3.01, an owner or operator of a putrescible waste composting facility shall be considered by the Department to be in compliance if, within ninety (90) days of the effective date of this regulation, such owner or operator has submitted to the Department the following information with respect to such facility:
(A) Name, business address, and business telephone number of the facility's owner and the owner of the land on which the facility is located;
(B) Location of the facility (address);
(C) Acreage of the property on which the facility is located;
(D) Volume of waste composted, or expected to be composted, annually;
(E) Acreage of area used, or to be used, for a composting pad, waste processing activities, and storage of compost;
(F) Name of individual to be the primary contact with the Department;
(G) Name, business address, and business telephone number of any engineer or other consultant employed or retained to design and/or oversee construction and/or operation of the facility.
8.3.05 Operating Plan - An operating plan shall be submitted including all of the information listed below:
(A) Specific ownership or leasing arrangement of the facility or any other agreements affecting control, use, or operation of the site;
(B) Operating days and hours;
(C) Provisions for limiting access;
(D) Daily traffic flow to and from the facility including the number of trips by private or public collection vehicles and quantity of solid waste in each vehicle;
(E) Weighing facilities (if any);
(F) Procedures for unloading trucks, including frequency, rate and method;
(G) Types of compostable material to be accepted with percentages of the total;
(H) Description of the composition of putrescible wastes to be accepted, the anticipated quantity of each type of material, and how each will be handled at the site;
(I) Provisions for the immediate composting of all putrescible wastes;
(J) Detailed description of the composting method to be used and the proposed sequence of operation;
(K) For the windrow systems, the windrow(s) construction including length, width and height;
(L) Method of aeration of composting materials, including turning frequency or mechanical aeration equipment and aeration capacity;
(M) For in-vessel composting systems, a process flow diagram of the entire process including major equipment and flow streams;
(N) Description of any process monitoring during the composting process;
(O) Composting time duration (time period from initiation of composting process to completion);
(P) Time period of storage of finished compost prior to distribution;
(Q) Description of prevailing winds during various seasons of the year with respect to impacts on off-site receptors and procedures to control odors, dust, vectors (including gulls) and litter;
(R) Provisions for daily record keeping of weather conditions, wind direction, ambient temperature, odor, dust, litter, gull, and vector issues, condition of composting pad, windrow monitoring and corrective actions needed and taken;

(S) Personnel and duties;
(T) Procedures to control erosion and sedimentation;
(U) Surface drainage control measures;
(V) Leachate treatment operations;
(W) Equipment to be used on-site during operating hours;
(X) Substitute equipment available;
(Y) Communication equipment available;
(Z) Fire control and prevention provisions;
(AA) Winter operations;
(BB) Provisions for compost utilization;
(CC) Documented markets for finished compost;
(DD) Provisions for the proper storage of compost;
(EE) Quality assurance/Quality control of finished compost which also includes compost (product) sampling and analysis details;
(FF) Method for removal of finished compost from the site;
(GG) Plan for disposal of finished compost that cannot be used in the expected manner due to poor quality or changes in market conditions; Also, a plan identifying the disposal method for waste received, in the event that the waste is contaminated (or becomes contaminated) with prohibited materials such as oil, hazardous materials, etc. or if the waste cannot be placed into a composting process in an acceptable time period, per Rule 8.4.18;
(HH) Description of surface soil characteristics for the proposed site and depth to seasonal high groundwater and bedrock;
(II) Aesthetic considerations;
(JJ) Estimated life of composting facility.
8.3.06 Contingency Plan - The plan must address:
(A) Action taken with respect to personnel and user safety;
(B) On site personnel injury;
(C) Fires;
(D) Equipment breakdown;
(E) Disposition of waste received that is not authorized by the Department to be composted at the facility (i.e. hazardous, medical waste);
(F) Releases of hazardous or toxic materials;
(G) Steps that will be taken to alleviate odors, groundwater contamination and other undesirable conditions.
8.3.07 Additional Information - The applicant shall submit such additional information relevant to the facility that the Department deems appropriate.
8.3.08 Re-registration - Each owner or operator of a registered putrescible waste composting facility shall re-register such facility with the Department, if any of the following occurs:
(A) The annual volume or weight of the putrescible waste to be composted at the facility increases by twenty (20) percent of the annual volume or weight indicated in the current registration;
(B) The design of the facility, or procedures or processes for putrescible waste composting are modified;
(C) There is a change in the identity of the facility's owner or operator or site location.
8.3.09 Registration Suspension or Revocation - The Department may suspend or revoke a facility's registration due to owner/operator failure to comply with the Department's rules and regulations.
8.4.00 PUTRESCIBLE WASTE COMPOSTING OPERATING STANDARDS
8.4.01 General:
(A) All putrescible waste composting facilities shall meet all requirements set forth in this Rule in addition to the General Operating Standards in Solid Waste Regulation No. 1.
(B) The passive composting method is prohibited for composting putrescible wastes. The windrow and turn method, aerated static pile and in-vessel composting are acceptable methods for composting putrescible waste. Other methodology will be considered for approval pending Department review.
8.4.02 Siting and Buffers - No putrescible waste composting facility shall be operated at any location unless at such location:
(A) There are at least two hundred (200) feet between the staging, processing, curing, and storage areas of the facility and any surface water.

(B) There are at least one hundred (100) feet between the staging, processing, curing, and storage areas of the facility and the boundaries of the property at which the facility is located.
(C) There are at least two hundred fifty (250) feet between the staging, processing, curing, and storage areas of the facility and any occupied building other than an owner occupied building on the property at which the facility is located.
(D) There are at least three (3) feet between the ground surface of the property at which the facility is located and the seasonal high groundwater table.
(E) There are at least five (5) feet between the ground surface of the property at which the facility is located and the bedrock.
(F) There are at least two hundred (200) feet between the staging, processing, curing, and storage areas of the facility and any bedrock public wells.
(G) There is at least a two hundred (200) foot separation from private wells and a one thousand (1000) foot separation from gravel pack public wells (relative to the distance between the staging, processing, curing and storage areas of the facility and such wells).
(H) The composting site is not located on a public well field.
(I) Buffers, such as trees, walls, fences, natural or man made topographic features shall be installed to mitigate noise, odors, litter and other potential impacts on neighboring properties.
(J) The composting site is not located on a wellhead protection area (as defined in the Department's "Rules and Regulations for Groundwater Quality, August 1996"), delineated consistent with the wellhead protection program for a public well. If the owner or applicant seeks a variance from this requirement, then the Department will require demonstration that leachate (if any) from the composting facility will not impact on the groundwater supply, under terms of the variance.
(K) A putrescible waste composting facility which is located on top of a solid waste disposal area closed in accordance with Rhode Island Department of Environmental Management Solid Waste Facility Regulations and Title 40 Code of Federal Regulations Part 258.60 shall have composting conducted on a pad to prevent disruption of the landfill cap and underlying waste. The pad shall be constructed of well compacted, well drained soil. It shall be no less than two (2) feet thick and sloped at two - five percent (2-5%) to promote surface drainage. The pad shall be constructed in addition to the minimum two (2) feet of final cover soil required at all closed solid waste disposal areas.
8.4.03 Endangered Species - No facility or practice shall cause or contribute to the taking of any endangered or threatened species pursuant to the Endangered Species Act, 16 U.S.C. 1531 et seq. and/or the regulations adopted to implement such Act, as is or as amended. The facility or practice shall not cause or contribute to the destruction or adverse modification of the critical habitat of endangered or threatened species.
8.4.04 Water Pollution
(A) General
(1) No putrescible waste composting facility shall be operated so as to cause or to be likely to cause pollution of the ground waters or surface waters of the State;
(2) In determining whether said operation of putrescible waste composting facility is causing or is likely to cause pollution of the ground waters or the surface waters of the State, the Director may consider the following factors:
(a) Groundwater monitoring results show significant statistical increases in excess of any one or more of the parameters as delineated in Appendix A of Solid Waste Regulation No. 2,
(b) Groundwater monitoring results from the facility show detection of one or more of the parameters as delineated in Appendix B of Solid Waste Regulation No. 2,
(c) Topography, hydrology and geology of the area encompassing the composting facility indicate a likelihood of contamination of a surface water body or groundwater,
(d) Groundwater leaving the licensed area is likely to impact private or public drinking wells down gradient from the facility,
(e) Groundwater leaving the licensed area is likely to impact groundwater used for commercial or industrial processes down gradient from the facility,
(f) Facility violates a groundwater standard,
(g) An actual or potential discharge into any surface water;
(3) In the event that the Director finds that the operation of a composting facility is causing or is likely to cause pollution of the groundwaters or the surface waters of the State, the Director may evaluate the operation of said

putrescible waste composting facility and require such measures as are necessary to abate, eliminate or avoid such pollution, including, but not limited to, the following:
(a) Groundwater removal and treatment,
(b) Contaminated groundwater encapsulation,
(c) Alternate sources of drinking water to impacted individuals,
(d) Closure of the facility.
(B) Surface Water
(1) No composting activities shall be conducted within or impact any freshwater wetlands as defined by Rhode Island General Laws §2-1-18 et seq. Composting activities shall not occur on a site that is not in compliance with Rhode Island General Laws §2-1-18 et seq. and Rules and Regulations promulgated pursuant to that Act.
(C) Groundwater
(1) No composting facility shall be constructed where solid waste may be in direct contact with groundwaters of the State. A minimum of three (3) feet of soil is required between the highest water table level and the lowest level of the composting pile. The Director may require a greater separation if the three (3) feet minimum will not ensure protection of public health.
(2) No composting facility shall be located within two hundred (200) feet of an existing bedrock public water supply well and within one thousand (1000) feet from a gravel pack public well. The Director may require a greater separation if these minimum separation distances will not ensure protection of public health.
8.4.05 Air Standards - Any composting facility shall not violate the following:
(A) State implementation plans approved or promulgated pursuant to 23-23, 1956 RIGL, as is or as amended; the rules and regulations to implement such Chapter, and any applicable provisions of the Air Act, 42 U.S.C. 7410, as are or as amended.
(B) The State Air Pollution Control Act, and the rules and regulations promulgated thereunder.
(C) Odors: The composting facility shall not emit or cause to be emitted into the atmosphere any air contaminants or combination of air contaminants which creates an objectionable odor beyond the property line of said facility. Odor evaluations shall be conducted by Department personnel to determine if an odor is objectionable by taking into account its nature, concentration, location, duration and source.
(D) The composting facility must establish an odor-complaint hot line. The facility must have the ability to receive all calls on a twenty-four (24) hour per day basis. (An answering machine may be used for this purpose.) Complaints received during normal operating hours must be investigated and responded to immediately. Complaints received during times when the facility is closed must be investigated and responded to within twelve (12) hours from when the complaint is received. All complaints received by the facility and actions taken in response to the complaints must be reported to the Department within twenty-four (24) from when the complaint was received. The facility operating plan must indicate how the odor complaint hot line will be established and what actions will be taken when odor complaints are received. Odor complaint forms must be created and maintained by the facility.
8.4.06 Fire Protection - A facility shall not pose a hazard to the safety of persons or property from fires. In addition, the following requirements must be met:
(A) All composting facilities shall submit site locator plans, site sketches, and operating plans to the local fire department for their notification and review so as to provide emergency service whenever called;
(B) All composting equipment (dozer, front end loaders and other equipment) shall be supplied with fire extinguishers.
8.4.07 Safety Provisions - Composting facilities shall be designed, operated and maintained in such a manner as to protect the health and safety of users of the facility and personnel associated with the operation of the facility, and persons in close proximity to the facility.
8.4.08 Access
(A) Time: Access to the putrescible composting facility shall be limited to the hours in which authorized operating personnel are on duty at the facility. Additional time shall be designated before and after normal operating hours to allow for "housekeeping chores". There shall be no access to the facility for the acceptance of solid waste during this additional time.
(B) Site Access - Access to the site shall be adequate to permit orderly entrance and exit, even during inclement weather. Roads shall be adequate to allow access by fire fighting equipment at all times.

(C) Site Security: There shall be gates at all entrances to facilities which will prevent access to the facility, except at such times as permitted under Rule 8.4.08(A) above. These gates should be locked when the site is unsupervised. Fences will be required around the facility to limit unauthorized access and dumping.
8.4.09 Signs
(A) There shall be erected at the entrance to the putrescible waste composting facility a sign, clearly legible and visible, which contains the following:
(1) Name of facility and operator,
(2) Emergency phone number,
(3) Restricted (prohibited) materials (if applicable),
(4) Operating hours and days open;
(B) There must be adequate directional signs within the facility to direct drivers to the appropriate unloading area, assist in traffic control and to regulate speed within the facility.
8.4.10 Operating Plan
A facility shall be operated in conformity with its approved operating plan.
8.4.11 Site Water Supply - On-site water supply shall be available to maintain proper moisture levels in the windrows. If no on-site water is available, then a water truck may be substituted for windrow watering only. Water used to maintain windrow moisture shall not adversely impact the finished compost.
8.4.12 Compost Thermometer - A compost thermometer three (3) - four (4) feet in height, capable of reading 0° - 200° Fahrenheit must be available on site to record temperature.
8.4.13 Monitoring Requirements - A written record must be maintained and available for Department review of:
(A) Windrow temperatures (must be recorded at least twice per week);
(B) Ambient air temperature at time of recording;
(C) Weather conditions;
(D) Odors (if detected);
(E) Pile moisture conditions and site observations.
This requirement may be modified or waived, with Department approval, providing satisfactory operating conditions have been maintained and demonstrated for a length of time satisfactory to the Department.
8.4.14 Composting Pad
(A) The composting pad must be designed to support heavy equipment;
(B) The pad must be permeable enough to prevent ponding of surface water and firm enough to prevent ruts in all seasons;
(C) Pads must be graded between a two (2%) percent and five (5%) percent slope;
(D) Existing site soil that is not permeable enough to prevent standing water or firm enough to prevent ruts will require that a pad be constructed,
(1) Composting pads must be constructed of bank run gravel or the equivalent,
(2) The pad shall consist of at least a layer twelve (12) inches of bank run gravel or the equivalent;
(E) Impermeable Pads may be approved, and such pads:
(1) Must have a system for collection and management of run-off,
(2) Must be designed to ensure that on-site drainage systems do not clog.
8.4.15 Drainage Control - The operator shall make provisions to have the composting site, including the compost pad, graded and provided with a drainage system to minimize surface water run-off onto and into the compost pad or windrows, to prevent erosion of the pad, to drain off rain water falling on the pad and to prevent the collection of standing water. Measures must be taken to prevent sedimentation associated with surface drainage from disturbed areas, and pads must be graded between two (2) and five (5) percent slopes. In no case shall the grade of the compost pad exceed the operational requirements of windrows turning equipment.
In addition:
(A) A drainage system must be developed to prevent sediment or run-off water from migrating off site;
(B) Ground surface upgradient of the site must be prepared to prevent water seepage into compost and curing piles;
(C) Drainage control measures must be designed to accommodate the net increase from a twenty-four (24) hour, twenty-five (25) year storm event;
(D) Putrescible waste composting facilities shall not be located in one hundred (100) year flood plains, unless provisions have been made to prevent encroachment of floodwaters onto the facility and approval has been obtained from the Office of Water Resources.

8.4.16 Windrows - Windrows shall be placed along the fall line of the compost pad (parallel to the slope of the pad). Windrow height and width shall be such that the windrow turning equipment used can mix all yard waste easily and thoroughly and in no case larger than twelve (12) feet in height and twenty-four (24) feet in width, and positioned so as not to allow water ponding between the windrows. Windrows shall also be positioned to allow for fire vehicle access.
8.4.17 Waste Screening and Inspection - The owner or operator shall implement waste receiving area control procedures that provide for the screening and inspection of the incoming waste stream to prevent the acceptance of prohibited or unauthorized waste types, and to remove undesirable materials prior to the initiation of composting, as provided in the approved operating plan.
8.4.18 Waste Handling and Operation
(A) Unloading of Waste: The unloading of solid waste shall be controlled and restricted to an area such that the material can easily be incorporated into the putrescible composting facility.
(B) Litter: Windblown refuse shall be eliminated or controlled by using fences or other comparable means. The putrescible waste composting facility shall be kept free from windblown refuse at all times.
(C) Brush: Any brush accepted at a putrescible waste composting facility must be chipped within one (1) week after arrival, unless otherwise approved by the Department. Chipped brush may be stored for approved time periods in designated areas in quantities and pile sizes approved by the Department.
(D) Putrescible wastes must be incorporated into the active composting process immediately upon arrival at the composting facility.
(E) Grass clippings are to be incorporated into the windrows within three (3) days of delivery to the site.
(F) Designated storage areas shall be provided for composting materials; said areas will minimize odors, run-off, and will not adversely impact the composting facility.
(G) In no event shall a windrow contain materials and wastes for more than a twelve (12) month period, (composting shall be completed within this time frame).
(H) Moisture in the windrow shall be maintained in a manner that continues the composting process. The moisture level shall be maintained between forty (40) and sixty (60) percent by weight.
(I) In the windrow and turn method, windrows shall be turned as often as is necessary to continue aerobic composting and to prevent odors. The internal temperatures (optimum temperature 100° - 140°F) of windrows may be used as an indicator of aerobic composting. Temperatures shall be monitored at least twice per week. Windrow height and width shall be such that the windrow turning equipment used can mix all putrescible waste and in no case larger than twelve (12) feet in height and twenty-four (24) feet in width.
(J) In static aerated windrow composting, windrows shall be mechanically aerated as often as is necessary to continue aerobic composting and to prevent foul odors. Windrow height and width shall be such that the aeration equipment can properly aerate the waste.
(K) Windrows shall be turned as often as is necessary and/or any potential bioaerosols. Windrows must be moist and/or watered sprayed during the windrow turning process, Additional measures may be required, as necessary, to protect workers or visitors from dust or bioaerosols.
8.4.19 Dust Control - The operator must take suitable measures at all times to control dust at every composting facility, access roads to the facility and all other areas related to the facility's operations. This may be accomplished by spraying small amounts of water over the dust producing area and/or by the application of suitable chemicals or paving materials on access roads.
8.4.20 Control of Litter - Measures must be taken to eliminate the scattering of refuse. The operator shall provide for routine maintenance and general cleanliness of all areas related to the composting facility's operation.
8.4.21 Vector Control - The facility shall not operate unless the on-site vector population is minimized utilizing techniques, approved by the Department, that will protect public health.
(A) Conditions shall be maintained that are sanitary and therefore unfavorable for the harboring, feeding, and breeding of vectors;
(B) Control of insects and rodents, where needed, shall be effected by means of a program directed by a professional exterminator utilizing insecticides and/or rodenticides or other means approved by the Department;
(C) Gull control procedures shall be employed that meet the requirements of Rhode Island General Assembly Act 94-H 8872.
8.4.22 Compost Storage Area
(A) Shall be no smaller than least fifteen (15%) percent the size of the windrow composting area;
(B) Curing time shall be a minimum of one (1) month.

8.4.23 Operating Requirements Aerated Static Pile
(A) Maximum height twelve (12) feet;
(B) Maximum width twenty-four (24) feet;(C) Perforated PVC pipe used shall be a minimum four (4) inches diameter;
(D) Porous substrate (wood chips, sawdust or other porous material);
(E) Organic blankets shall be a minimum of six (6) inches (wood chips, compost, sawdust);
(F) Blower fans used shall be centrifugal type.
8.4.24 In Vessel Composting
(A) A professional engineer must submit design plans for this process;
(B) A process flow design must be included;
(C) A leachate collection system is required;
(D) An impermeable pad is required.
8.4.25 Static Aerated Composting System - Static aerated composting system shall be mechanically aerated as often as necessary to continue aerobic composting and to prevent foul odors;
(A) Windrow height and width governed by windrow turning equipment;
(B) Maximum height twelve (12) feet;
(C) Maximum width twenty-four (24) feet.
8.4.26 Communication - A suitable means of communication (telephone, two-way radio, etc.) shall be available at every putrescible waste composting facility.
8.4.27 Compost Distribution - Compost product offered for distribution shall meet the requirements of Rhode Island General Laws, Chapter 22 "Rhode Island Soil Amendment Law" and those parameters outlined in Rule 8.8.00, "Compost Product Requirement and Distribution".
8.4.28 Closure Procedure
(A) A facility must notify the Department at least three (3) months prior to the anticipated date that closure operations are to begin and must submit a closure plan for approval by the Department, prior to commencing closure operations.
(B) After the closure plans have been fully implemented, the Department shall be notified so that an inspection may be made by Department personnel. A list of the deficiencies, if any, will be returned to the owner of the facility. A final inspection will be required after all deficiencies are corrected.
(C) A professional engineer registered in the State of Rhode Island must certify that the facility is properly closed in accordance with the approved closure plan.
8.5.00 MIXED SOLID WASTE COMPOSTING FACILITY LICENSE REQUIREMENTS
8.5.01 General Information - A mixed solid waste composting facility is not eligible for a registration. No person shall construct or operate a mixed solid waste compost facility unless said person has received a license approved by the Director to construct and operate a mixed solid waste compost facility. In addition to meeting the general requirements set forth in Solid Waste Regulation No. 1, each applicant for a license to construct and operate a mixed solid waste composting facility subject to this rule must contain the following:
(A) Radius plan, site plan, and construction and engineering plans and specifications, per Rules 8.5.03, 8.5.04, and 8.5.05 respectively;
(B) Construction inspection and quality assurance/quality control plan per Rule 8.5.06;
(C) Narratives and information per Rule 8.5.07, 8.5.08, and 8.5.09 concerning:
(1) Design and operation of proposed facility,
(2) Geology, soils and groundwater,
(3) Buffers, setbacks and odor/aesthetic considerations;
(D) Operating plan per Rule 8.5.10;
(E) Finished compost storage and marketing plan per Rule 8.5.11;
(F) Facility closure plan per Rule 8.5.12.
8.5.02 Applicability and Exemptions - Rule 8.5.00 applies to any person(s), corporation or other entity proposing to construct and/or operate a facility to produce compost from mixed solid waste or from mixed solid waste and other co-composting wastes, such as sewage sludge or septage. It does not apply to any person(s), corporation or other entity proposing to construct and/or operate a facility to produce compost from leaf and/or yard waste, from putrescible wastes, or from agricultural by-products as regulated in Rules 8.1.00, and 8.3.00, or by the Office of Natural Resource Services, respectively. Person(s) in households that intend to do backyard composting of waste

generated on site and acceptable to the Department as specified in the definition of backyard composting in Rule 1.3.20 are exempt from Rule 8.5.00. Backyard composting of sewage sludge or septage is not allowed.
8.5.03 Radius Plan - Radius plan(s) including all of the information listed below, shall be submitted. The radius plan(s) must be drawn to an appropriate scale adjusted to fit a standard size sheet and including all areas within a one (1) mile radius out from all property lines of the composting facility site. The required information includes:
(A) Zoning of all areas as required by Rule 1.5.05;
(B) All buildings and dwellings (labeled with identification);
(C) All public and private water supplies (groundwater wells, reservoirs, etc.);
(D) All surface water courses (labeled with identification);
(E) All wetlands and extent of 100 year flood plain (if applicable);
(F) All sporting or recreational facilities, parks, conservation and management areas, wildlife refuses and historic sites (labeled with identification);
(G) All roads, bridges, railroads and airports (labeled with identification);
(H) All rights-of-way or easements for powerlines, pipelines, etc.;
(I) Legal boundaries of the site, certified by a registered land surveyor in Rhode Island;
(J) North arrow;
(K) Legend.
8.5.04 Site Plan - Site plan(s), including all the information listed below, for all areas within the site, shall be submitted. The site plan(s) must be drawn to a minimum scale of one (1) inch to one hundred (100) feet (1"=100'), adjusted to fit on a standard size sheet.
The required information includes:
(A) Legal boundaries of the site which shall be certified by a registered land surveyor in the State of Rhode Island;
(B) An outlined area showing the proposed licensed area of the facility (if different from the legal boundaries of the site);
(C) Locations of proposed fences, gates, barriers, security stations and similar structures providing access control;
(D) Access roads and on-site roads;
(E) On-site vehicle traffic patterns;
(F) Vehicle inspection areas (if any);
(G) Parking areas (if any);
(H) Weighing facilities (for in-coming vehicles with waste), (if any);
(I) Buildings and structures related to the facility and dwellings;
(J) Equipment storage areas (if any);
(K) Any external areas for storing certain wastes or product (if any and if appropriate);
(L) Powerlines, pipelines and other utilities connected to the facility and rights of way;
(M) Aboveground/Underground Storage Tanks (if any);
(N) On-site groundwater wells, surface water courses, water supply areas or wetlands and public or private land conservation areas;
(O) Locations of any monitoring wells or surface water monitoring locations (if any);
(P) Locations of existing/proposed soil borings;
(Q) Locations of any on-site environmental control measures (e.g. stormwater control, run-on/run-off control, erosion and sedimentation control, etc.);
(R) Labeling of any buffering features/buffer zones;
(S) North arrow;
(T) Legend;
(U) Composting site designation (within or outside a wellhead protection area).
8.5.05 Construction and Engineering Plans and Specifications
(A) Plans showing dimensions and details of the proposed waste receiving area, waste storage area, materials processing area, composting area, and product storage area and including plans for the building(s) to contain these activities;
(B) Specifications for the design, construction and maintenance of the surface pads, for waste receiving, waste storage, material processing, composting, and product storage;
(C) Specifications and plans (drawings) for materials processing and composting equipment/systems, including manufacturer's design and performance data for the selected equipment;

(D) Specifications for site preparation, including clearing and grubbing;
(E) Specifications and plans for odor control equipment;
(F) Specifications and plans for other environmental control measures, e.g. stormwater control, run-on/run-off control, leachate and waste water collection and treatment (if applicable), erosion and sedimentation control. Include the existing and proposed contours of the property at which the facility is located and of the properties adjacent to this property (at two (2) foot intervals);
(G) Specifications for access and on-site roads, including load limits;
(H) Specifications and plans for measures to limit access, e.g. fences, gates, security stations or other measures;
(I) Plans showing utilities to be installed on-site, points of usage and point of service connections off-site;
(J) Specifications for any aesthetic measures;
(K) Specifications for fire prevention, suppression and control systems.
8.5.06 Quality Assurance/Quality Control Plan
A construction inspection, QA and QC plan showing a detailed inspection schedule and inspection details for construction completed at the site.
8.5.07 Description of Design and Operation of Facility
(A) A descriptive overview (summary) of the entire operating process from reception of waste at the facility to completion of composting, including pre-processing activities, materials processing including recycling (if any), composting and post-composting activities (if any), such as screening and refining;
(B) A process flow diagram of the entire process in (1) above, that takes into account any manual steps, as well as mechanical or automated steps, and includes a total mass balance and accounts for all flow streams;
(C) A description overview (summary) of the equipment employed in the entire process in (1) above, including information on the function and capacity of each item of equipment;
(D) Discussion of number of materials processing/composting systems in service during normal operating conditions and capacity of each system as well as discussion of any stand-by systems, if any.
8.5.08 Geology, Soils and Groundwater
(A) A copy of the map of the soil survey in Rhode Island (map published by USDA Soil Conservation Service) with an outline of the proposed composting site clearly marked and an accompanying description (from the soil survey) of the soil classification and characteristics.
(B) The results of soil borings, submitted in boring logs which shall contain the following information for each boring:
(1) Date, method of boring, and location of boring;
(2) Depth of the maximum elevation of the groundwater table (to be measured at a minimum of twenty-four (24) hours after the boring is taken;
(3) Soil description - A detailed soil mapping to a depth of four (4) feet must be submitted for each boring and the information shall include:
(a) Color of each horizon;
(b) Texture of each horizon;
(c) Depth of each horizon;
(d) Depth to mottles (if any);
(e) Amount of coarse fragments (if any);
(f) Depth to bedrock (if encountered);
(g) Consistence or relative density;
(h) Slope.
(C) The number of borings required shall be determined by the Department, after review of the application. All borings shall be driven to a minimum depth of twenty (20) feet below the proposed compost pad elevation or to refusal. Split spoon samples shall be collected at a minimum of five (5) foot intervals and a soil description (per above) shall be provided for each split spoon sample. The boring(s) shall be located to give the best indications of sub-surface conditions for the whole site. The groundwater table elevation determination shall be made when the water table is highest; this usually occurs during the months of January through April and specific dates may be determined on a yearly basis by the Department.
(D) A groundwater survey showing the maximum groundwater elevations, the direction of groundwater flow and an estimation of the rate of flow (including calculations) shall be submitted.
8.5.09 Buffers, Setbacks and Odor/Aesthetic Considerations
(A) Discussion of existing and proposed buffers, relative to adjacent properties;

(B) Discussion of locations and distances of closest occupied buildings/residences off-site;
(C) Discussion showing compliance with Rule 8.6.17, relative to set-back/buffer requirements;
(D) A description of the prevailing winds during the various seasons of the year, with respect to impact of odors on off-site receptors;
(E) Air flow modeling (if any) of the proposed site to project odor impact of the planned facility on off-site receptors;
(F) A description of the air emission collection and control technology and all odor control systems;
(G) Description of any aesthetics to be included in the proposed facility/site.
8.5.10 Operating Plan
(A) An operating plan shall be submitted, including information on all of the numbered sections below. The minimum requirement for information to be provided is outlined in each section. The duration of the operating plan shall equal that of the license. The operating plan shall be reviewed by the applicant prior to license renewal and any changes to such plan shall be submitted to the Department for approval at that time.
(B) The applicant must comply with the regulations within the following rules: "Mixed Solid Waste Composting Facility Design Standards" per Rule 8.6.00, and "Mixed Solid Waste Operating Standards", per Rule 8.7.00,
(1) Operating Rates and Design Capacities
(a) For each type of solid waste input (mixed solid waste, co-composting waste (if applicable), bulking agent (if applicable), etc.), the expected near-term and projected long-range daily amount received by the facility (tons/day or cubic yards/day) and any other seasonal variations in quantities of each type.
(b) The near-term and projected long-range annual total solid waste received by the facility (tons/year or cubic yards/year),
(c) Near-term and projected long range waste processing rate at the facility (tons/day or cubic yards/day).
(d) Rated processing capacity of the facility's equipment, i.e. peak capacity for processing the mixed solid waste input (tons/day or cubic yards/day).
(2) Operating Hours
(a) Naming of the days of the week and the time intervals (exact hours) on each of these days, that the facility will be open to receive waste.
(b) The time intervals (exact hours) on each day that the facility will be in operation, to include hours open to the public, as well as hours for other facility activities.
(c) Description of operating shifts, including number of shifts and time intervals (hours) for each shift (if applicable).
(d) Discussion of any seasonal variations in the schedule, including planned facility shut-down periods (if any), holidays when the facility will be closed (if applicable), etc.
(3) Provisions for Limited Access - Discussion, to include the following in (A) - (E) below:
(a) Normal access road(s) into the facility and egress road(s) from the facility.
(b) Emergency access road(s), if any, into the facility or other provisions for access, by police, firemen, rescue, medical, etc.
(c) Security equipment and location including physical description of any fencing around the facility, physical description of barriers or gates at inlet/egress points, and any security personnel stations.
(d) Any natural land features which prevent access to the facility.
(e) Security surveillance, including security personnel work schedules.
(4) Types of Refuse to be Accepted
(a) Types and sources of solid waste in the incoming mixed solid waste and any variation over time, including seasonal variations.
(b) Discussion of suitability of the waste for composting efforts.
(c) Specification of any prohibited wastes that will not be accepted by the facility.
(d) Details of sign(s) at the facility entrance which mention prohibited materials.
(5) Types of Composting Additives, Seed Materials, Bulking Agents, Nitrogen Source, or other Amendments (if any):
(a) Description of additives and/or seed materials (if any) to be used in the composting process, including quantity, quality, and frequency of use and discussion of issues relative to impact on health, safety, or the environment.
(b) Type, source and quality of any bulking agent, nitrogen source or other amendment (if any).

(c) If sewage sludge or septage is to be co-composted, a detailed description of the source and quality of the sewage sludge or septage including any seasonal variations in its quality.
(d) Description of any expected recycling of bulking agent or compost within the facility (if any).
(6) Waste Analysis Plan
(a) A description of a waste to be received and waste to be processed, to determine the quality of this waste and to demonstrate its suitability for processing and composting.
(b) If sewage sludge or septage is to be co-composted, the details of the sampling and testing plan, including parameters in the analysis.
(7) Traffic Patterns
(a) Description of on-site road network serving in-coming and out-going vehicles including road surfacing and load-bearing capacity.
(b) Anticipated daily traffic flow, including specification of expected vehicle types, waste capacity, number and frequency of vehicles entering and leaving the facility.
(c) Traffic flow patterns on site.
(d) Traffic control measures on site, including directional signs, traffic lights, speed control measures, etc.
(e) Parking and unloading areas and their vehicle capacities.
(8) Weighing Facilities (if any)
(a) Physical description and procedures for weighing or measuring in-coming waste.
(b) Details of information to be recorded relative to in-coming vehicles carrying solid waste.
(c) Details of equipment and procedures to be used relative to information recording and information storage.
(9) Waste Inspection and Screening Procedures
(a) A description of the waste inspection and screening procedures used to assure that incoming waste accepted by the facility is consistent with the operating plan, that the recyclable materials content of each load of incoming waste is in compliance with the "Rules and Regulations for Reduction and Recycling of Municipal Solid Waste" and the "Rules and Regulations for Reduction and Recycling of Commercial and Non-Municipal Residential Solid Waste", and such that unsuitable waste that is received is separated from waste to be composted.
(b) Location of the waste inspection and screening personnel.
(c) An overview of the plan used to train the waste inspection and screening personnel.
(d) A description of any equipment or devices used to screen in-coming wastes on vehicles.
(10) Waste Unloading Procedures
Procedures for unloading waste hauling vehicles, (including estimated frequency, rate and method) and a description of the waste unloading and receiving area including size and capacity to receive waste.
(11) Compostable Waste Storage
(a) A description of the storage facility for compostable solid waste, including the storage capacity (tons or cubic yards).
(b) The schedule for initiation of processing of this waste, following receipt of this waste at the facility.
(12) Storage and/or Handling of Composting Additives, Seed Materials, Bulking Agents or Other Amendments
(a) A description of the storage facilities for each of the items (if applicable), including the storage capacity.
(b) If the facility accepts sewage sludge or septage, for co-composting, a discussion of the expedited initiation of co-composting of this waste and any other procedures to prevent odor problems.
(13) Bulky Waste, Special Wastes, and Other Non-compostable and Non-recyclable or Oversized Waste Handling Procedures,
(a) A description of the methods employed to separate out these wastes from the in-coming waste stream, where applicable.
(b) A description of the storage facilities and storage capacities for each of these types of solid waste, where applicable.
(c) The schedule for removal of these wastes from the facility and the name(s) and location(s) of the disposal sites for these wastes.
(14) Prohibited Waste Handling and Disposal
(a) Procedures to be employed if prohibited waste is observed, upon inspecting the in-coming waste.
(b) A description of the storage area and capacity for prohibited waste, including any prohibited solid waste and hazardous waste, that have been unloaded at the facility. The Plans shall also include the schedule for removal of these wastes from the site and disposal sites and locations for each of these types of wastes.
(15) Recyclables Handling Procedures (if applicable)

(a) A description of the recyclables separation program (if any), including a discussion of the equipment and methods employed for removing and recovering recyclables, prior to composting.
(b) A list of the recyclables that are recovered.
(c) A description of the storage facilities and storage capacities for each of the recyclables (if applicable).
(d) A discussion of markets for the recyclables and the name(s) and location(s) for disposition of these recyclables.
(e) The schedule for removal of these recyclables to off-site recycling facilities.
(16) Composting Procedures
(a) Description of any preliminary pre-composting steps such as measuring, shredding, size reduction, mixing, screening, proportioning and watering, including discussion of any equipment employed.
(b) Discussion of use of any additives, seed materials, bulking agents, addition of nitrogen sources, or other compost amendments, if applicable.
(c) A detailed description of the composting method to be used and the proposed sequence of operations and detention times for each phase of the composting process, including refining of final product, if applicable.
(d) The proposed duration of the process from initial composting to final product, including decomposition, cooling, stabilization, curing and refining, where applicable.
(e) Discussion of methods and conditions maintained to achieve PFRP requirements [per Rule 8.7.14(E)].
(f) Details of methods employed to maintain aerobic conditions during composting, along with proper moisture and temperature.
(g) Method of aeration, including turning frequency or mechanical aeration equipment and aeration capacity and method of regulating air flow.
(h) Details and schedules for mixing and blending of wastes during active composting.
(i) If the windrow and turn method or the aerated static pile method is employed, the methods used in constructing the windrow or piles, the equipment employed and proposed dimensions of these windrows or piles.
(j) A QA/QC plan for monitoring the compost process including, but not limited to:
(i) The location of temperature probes and the frequency of monitoring,
(ii) Moisture monitoring and its frequency,
(iii) Air flow monitoring and control.
(17) Procedures for Operation During Inclement Weather and Winter Operations
Discussion of special precautions or procedures for operation during wind, heavy rain, snow, freezing conditions or other severe weather.
(18) Residue Handling, Storage, and Disposal
(a) A description of the method of separation of residue from compost, if applicable.
(b) A description of the physical and chemical composition of the residue (non-compostables and over-size material) resulting after the composting process.
(c) Description of the storage facility area and storage capacity for this residue, if stored prior to disposal.
(d) The schedule for off-site disposal of this residue and the name(s) and location(s) of the disposal sites.
(19) Surface Water/Stormwater Management and Erosion/Sedimentation Control
(a) A description of any procedures, structures, or equipment (if any) to prevent run-on and run-off at the facility and description of stormwater control measures and surface drainage control measures (if any).
(b) A description of erosion and sedimentation control measures (if any).
(20) Leachate and Waste Water Management, Disposal and Groundwater/Surface Water Protection
(a) A description of the method to collect and control leachate and waste water from the facility.
(b) Discussion of treatment of leachate and waste water (if applicable) and description of the method of disposal of leachate and waste water.
(c) Discussion of any measures taken to protect groundwater and surface water.
(21) Odor Control
(a) Discussion of equipment and operating methods and procedures to minimize, manage, and monitor odors and achieve proper odor control.
(b) Plans detailing corrective action in the event of odor complaints.
(c) Discussion of details relative to establishing and maintaining an odor control hot line.
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(22) Facility Housekeeping Procedures
(a) Procedures to prevent and control vectors, litter and dust at the facility.

(b) Discussion of routine housekeeping procedures before and after public hours (hours open to the public to receive waste).
(23) Facility Inspection and Maintenance Plan
(a) Summary of the facility inspection plan including the items to be inspected routinely and their schedule from inspection.
(b) Summary of routine maintenance procedures on items to undergo routine maintenance and their maintenance schedule.
(c) Summary of corrective actions to be taken in the event of breakdown of significant equipment.
(24) Outline Operations and Maintenance Manual
A summary of the topics to be included in the facility's operation and maintenance manual.
(25) Personnel
(a) An organizational/manning chart for the facility.
(b) Duties and responsibilities for each facility job position.
(c) The staffing provided for each operating shift, including both operational and maintenance activities.
(d) A description of procedures, structures or equipment used at the facility to prevent operational hazards, including required personnel protective equipment.
(e) A summary of the personnel training program which addresses the specific training needs to operate and maintain this composting facility.
(26) Fire and Explosion Prevention, Suppression and Control
(a) Description of precautions and procedures used to prevent ignition or explosion of wastes or waste by-products.
(b) Discussion of fire suppression and control measures, including source, quantity and location of available water and other fire fighting materials and equipment that are on-site.
(c) Contingency fire protection in event of a water shortage or emergency.
(27) Emergency Contingency Plans
(a) Contingency operations plan in event of receipt of hazardous waste.
(b) Emergency response plan in event of significant fire or an explosion.
(c) Plans detailing corrective action in the event of groundwater contamination or chemical spills.
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(28) Substitute Processing/Disposal/Transfer
(a) Discussion of facility alternate or back-up standby equipment (if any), in the event of primary equipment failure.
(b) Designation of licensed disposal site for transfer of in-coming waste in event of emergency at facility (equipment failure, power outages, natural disaster, fire, etc.) which prevents normal operation at the facility.
(c) A plan identifying the disposal method for compostable waste received, if the waste is contaminated (or becomes contaminated) with prohibited materials, such as oil, hazardous waste, etc. or is not placed into a composting process in an acceptable period of time, per Rule 8.7.09.
(29) Communication Requirements
(a) Description of the types and location of communication equipment throughout the facility.
(b) Description of communication networks (internal and external).
(30) Utilities
(a) Discussion of utilities that will be connected to the facility and in operation at the facility.
(b) Description of back-up power supply at the facility.
(31) Record-Keeping
A summary of the records that will be retained at the facility.
8.5.11 Compost Storage and Marketing - This rule applies to compost produced in mixed solid waste composting facilities.
(A) Storage Procedures - A description of the storage facilities and storage capacities (tons or cubic yards) for compost produced at the plant.
(B) Anticipated Rate of Production of Compost - A plan for anticipated recovery rate of compost from the process (tons/day, cubic yards/day or other quantitative description).
(C) Anticipated Compost Quality - A description of the anticipated quality of compost produced at the facility (see Rule 8.8.01 for Compost Quality Standards, for Class "A", Class "B" and Class "C" compost).

(D) Compost Product Sampling and Testing - A QA/QC plan, which also includes compost (product) sampling and analysis details, for reasons of compost process quality control and product quality assurance.
(E) Compost (Product) Uses
(1) Plans for re-use, sale or marketing of the compost product,
(2) Discussion of proposed ultimate uses of compost sold or marketed.
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(F) Schedule for Removal of Compost (Product) From Facility and Distribution Plan
(1) Expected time frame for distribution of the compost (e.g. expected time elapsed after production of a batch of compost, prior to distribution),
(2) Method for removal of compost (product) from the facility,
(3) A plan for distribution of the compost;
(G) Packaging and Labeling of Marketable Compost
(1) A description of any packaging (if any) to be employed with the distribution of the compost product,
(2) Details of the information to accompany the distribution of the compost product (e.g. copy of the label, information sheet, etc., relative to bagged or bulk compost).
(H) Plan for Unmarketable or Sub-Quality Compost) - The plan for use or disposal of compost product that cannot be sold or marketed in the expected manner, due to poor quality or changes in market conditions.
8.5.12 Facility Closure Plan - This rule applies to all mixed solid waste composting facilities, regardless of the status of their future operating plans, i.e., even if there is no plan to ever close the facility in the foreseeable future. Pursuant to the requirements set forth in Rule 1.5.10, this plan will include the following, at minimum:
(A) Planned or estimated year of proposed closure (if any).
(B) Measures taken to remove all remaining solid waste or other wastes, recyclables (if any), composting waste, and compost product from the facility.
(C) Methods to restrict access and prevent additional solid waste from being deposited at the facility, including physical description of any fences, gates and/or other barriers placed at the facility.
(D) Discussion of impact of closure on legal boundaries of the site, changes in ownership and description of anything that affects the legal boundaries of the site.
(E) Intended future use of the facility and property, following closure (immediate and long-term use).
(F) A financial estimate of the costs to properly close the facility, (which shall include the use of third-party personnel and equipment to accomplish the closure). With respect to financial assurance (Rule 1.5.10(b)(2)), the applicant must post financial assurance for the full amount of the closure cost estimate as a pre-condition for the issuance of a solid waste management facility license.
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8.6.00 MIXED SOLID WASTE COMPOSTING DESIGN STANDARDS
8.6.01 General - All mixed solid waste composting facilities shall meet all the requirements set forth in this Rule in addition to the General Standards in Solid Waste Regulation No. 1.
8.6.02 On-site roads and access areas
(A) All access and on-site roads shall be surfaced and constructed in accordance with heavy truck usage and for all-weather use.
(B) Access and on-site roads shall be designed to prevent traffic back-ups and to permit orderly entrance and egress and maintain even traffic flow at all times when the facility is open to receive waste, even during periods of inclement weather.
8.6.03 Fencing and Gate Design
(A) There shall be gates with locks at all entrances to the facility to prevent access except at times when authorized operating personnel are on duty;
(B) Fencing shall be required around the perimeter of the facility to prevent unauthorized access and illegal dumping at the site and to provide containment of wind-blown litter (if any).
8.6.04 Emergency Access Provisions - Access and on-site roads shall have adequate space and shall be maintained to allow the unobstructed movement of fire-fighting vehicles and other emergency vehicles, equipment and personnel to the operating area of the facility.
8.6.05 Unloading and Sorting Area Design Features
(A) The approach and unloading area shall be adequate in size and design to facilitate the rapid unloading of solid waste from vehicles and the unobstructed maneuvering of vehicles and other equipment;

(B) The unloading area shall be adequate in size and capacity to manage the projected volume of incoming solid waste;
(C) The unloading area shall be graded to prevent ponding of leachate from the waste;
(D) The surface of the unloading area shall be constructed of impervious material, such as asphalt or concrete, capable of being cleaned by high pressure water spray and equipped with drains, sumps or other means to collect liquids;
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(E) The tipping floor shall be under roof and fully enclosed with negative pressure air collection and treatment as needed, in order to avoid odor problems, to avoid windblown dust and debris and to prevent exposure to precipitation.
8.6.06 Incoming Mixed Solid Waste Storage Area Features
(A) The facility shall have provisions for storage area(s) for incoming mixed solid waste, waiting to be processed. There shall be at least a capacity to store a volume of mixed solid waste equivalent to three (3) days worth of incoming waste, plus contingency storage, (to provide surge space for fluctuations in delivery volume and variations in composting operations, including processing equipment outages).
(B) All unprocessed mixed solid waste storage areas shall be under roof and fully enclosed to avoid windblown dust and debris and to prevent exposure to precipitation.
(C) The storage area shall be graded to minimize ponding of leachate from the waste piles.
(D) The surface of the storage area shall be constructed of impervious material, such as sealed asphalt or concrete, to minimize liquid release into the groundwater under the site and to allow for cleaning with high pressure water spray. The storage area shall be equipped with drains, sumps or other means to collect liquids.
(E) These storage area design features in (B), (C), and (D) also apply to co-composting wastes, bulking agents or other amendments.
8.6.07 Design Provisions For Storage of Non-Compostable Waste
(A) The facility shall have the capacity for proper handling, storage and removal of hazardous waste or other non-permitted waste delivered to or generated by the facility.
(B) The facility shall have provisions for proper storage of bulky, solid waste if such waste is accepted by the facility and if such waste is not immediately removed off-site for recycling or disposal. Acceptable options including storing in an enclosed structure with a roof, in a covered contained box or other equivalent option.
(C) The facility shall have provisions for segregation and proper storage of recovered recyclables, if recyclables are accepted as part of the incoming waste stream and if recovered recyclables are not immediately removed off-site for recycling. Acceptable options include storing in an enclosed structure with a roof, in a covered container box or other equivalent option.
(D) The facility shall have provisions for segregation and proper storage of compost residues or other process non-compostable residues or foreign matter, if such residues or foreign matter are not immediately re-processed or removed off-site for disposal.
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Acceptable options include storing in an enclosed structure with a roof in a covered container box or other equivalent option and shall be located on an impervious surface such as sealed asphalt or concrete to prevent leachate releases into groundwater under the site.
(E) If the facility separates out or recovers any other materials that do not fall into the above categories and furthermore will not be composted at this site, and will not be immediately removed off-site, then the facility must have provisions for segregation and proper storage of such materials. Acceptable storage options include storing in an enclosed structure with a roof, in a covered container box or other equivalent option, unless an alternate option is approved by the Department.
8.6.08 Up-Front Processing Area Design Features (Prior to Composting)
(A) If the facility performs any up-front processing of the incoming waste stream (i.e., removal of foreign matter and non-compostables, recovery of recyclables, material size reduction or any other activities to improve the feed-stock to be delivered to the composting area), then these activities shall be performed in an enclosed area, under a roof, to avoid windblown dust and debris and to prevent exposure to precipitation.
(B) Floor surfaces shall be constructed of impervious material such as asphalt or concrete, to prevent liquid releases into the groundwater under the site.

8.6.09 Design Provisions for Operation During Inclement Weather and in Winter Season - Provisions for operation during wind, heavy rain, snow, freezing temperatures and other inclement weather conditions shall be provided.
8.6.10 Acceptable Composting Techniques (Technologies) - The Department shall consider composting by aerated static pile, by windrow method or by enclosed vessel (in-vessel), to be acceptable methods. Any other comparable method will be considered by the Department, subject to approval or denial. All methods shall be employed within an enclosed building.
8.6.11 Active Composting and Curing Area Design Features
(A) There shall be sufficient space at the facility, to allow for the design volume (maximum capacity) being composted and cured at any given time;
(B) All active composting and curing areas shall be under a roof and fully enclosed to avoid odor problems, to avoid windblown dust and debris, and to prevent exposure to precipitation and maintain proper moisture and biological process control;
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(C) All active composting and curing areas shall be located on impervious surfaces, such as sealed asphalt or concrete, to prevent leachate releases into the groundwater under the site;
(D) Wherever active composting and curing areas occurs on a pad, the pad shall be graded to minimize ponding of leachate released from the composting piles;
(E) There shall be drains, sumps or other means to collect leachate released during active composting and curing;
(F) For facilities employing windrow composting techniques:
(1) The windrow shall be placed along the fall line of the composting pad, i.e., parallel to the slope of the pad,
(2) Windrow height and width shall be such that windrow turning equipment shall be able to mix the composting waste easily and thoroughly and in no case larger than twelve (12) feet in height and twenty-four (24) feet in width,
(3) Sufficient distances shall be maintained between adjacent windrows to allow maneuvering of heavy equipment during all depositing, turning and removal of compost and to allow for access by other vehicles, including fire fighting equipment;
(G) For facilities employing static aerated piles:
The pile height shall be such that aeration equipment can perform proper aeration of the piles and in no case greater than twelve (12) feet in height.
8.6.12 Finished Compost Storage Area Design Facilities and Capacity Requirement
(A) The facility shall have sufficient capacity for finished compost storage, not to exceed twelve (12) months production;
(B) The finished compost storage area must be located on impervious surfaces, such as sealed concrete or asphalt, to prevent liquid release into the groundwater under the site;
(C) The surface of the finished compost, storage area shall be graded to minimize ponding of liquids where compost is stored;
(D) The storage area, through appropriate design features, management practices and/or location of the storage area, shall properly control any odors generated from the stored finished compost, if any, depending on stability of the compost and climatic conditions.
8.6.13 Surface Water/Stormwater Management Design Provisions and Erosion Control/Sedimentation Prevention
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(A) The facility shall not be constructed or operated in a one hundred (100) year flood plain area unless provisions have been made to prevent encroachment of flood waters upon the facility and approval has been obtained from the Office of Water Resources;
(B) Stormwater management systems must be designed to control the water volume of a twenty-four (24) hour, twenty five (25) year storm and to prevent run-on from entering the receiving, processing, composting, curing or storage areas;
(C) For any facility where run-off and erosion may be a problem, the design of the facility shall include erosion control measures.
8.6.14 Liquids Management Design Provisions
The facility shall have a liquids collection and removal system designed, constructed, maintained and operated to collect and remove liquid waste from the waste receiving and waste storage areas, waste composting and curing areas.

8.6.15 Fresh Air and Process Air Controls
In order to provide for proper worker health conditions and to avoid build-up of carbon dioxide, ammonia and fog, the facility must include appropriate design provisions to include one or more of the following options or a Department approved alternate option:
(A) Active ventilation of composting building enclosures to provide adequate fresh air make-up and appropriate treatment of building ceilings and other building structures to avoid or accommodate the accumulation of corrosive condensate;
(B) Collection of composting process air using negative aeration or air collection inside the pile so that it can be appropriately treated and not exhausted inside the building;
(C) Total enclosure of the composting waste such that all process air is contained within the enclosure during composting and such that the process air does not enter the building, but instead is separately handled and treated.
8.6.16 Odor Control Design Features
(A) Facility design shall include provisions, such as biofilters, to limit the production of and/or off-site dispersal of odors;
(B) Process air must be contained, collected, treated (deodorized) and dispensed to the atmosphere as necessary to avoid creating an odor nuisance from the incoming waste unloading/sorting area, the waste (feed-stock) storage area, the waste composting piles or chambers, the nitrogen source (supplementary material), storage area (if any), 42
the compost curing area, the finished compost storage area and any other potential odor sources;
(C) Scrubbing devices (if any) used to remove odors shall be properly maintained and shall be used with stacks of appropriate height and where exhaust air is properly dispersed.
8.6.17 Setback and Buffer Requirements
(A) No waste shall be received (unloaded), stored, processed or composted on any well field or within one thousand (1000) feet of any private or public drinking water supply well or within the wellhead protection area delineated consistent with the wellhead protection program for a public well. If the owner or applicant seeks a variance from this requirement, then the Department will require demonstration that leachate (if any) from the composting facility will not impact on the water supply, under terms of the variance.
(B) No waste shall be received (unloaded), stored, processed or composted within the watershed of any surface water used as a public drinking water supply. If the owner or applicant seeks a variance from this requirement, then the Department will require demonstration that any run-off from the composting facility will not affect surface water quality, under terms of the variance.
(C) No waste shall be received (unloaded), stored, processed or composted within two hundred (200) feet of any body of surface water or freshwater wetland. If the owner or operator seeks a variance from this requirement, then the Department will require and the applicant shall demonstrate that any run-off from the composting facility will not significantly and adversely affect the surface water or wetlands, under terms of the variance.
(D) Composting activities shall not be located within any freshwater wetlands as defined by Rhode Island General Laws §2-1-18 et seq. Composting activities shall not occur on a site that is not in compliance with Rhode Island General Laws §2-1-18 et seq. and the Rules and Regulations promulgated pursuant to that Act.
(E) No waste shall be received (unloaded), stored, processed or composted within one hundred (100) feet of the compost facility's property line, nor within five hundred (500) feet of any residence, place of business, or other private or public facilities occupied by humans (excluding the facility owner/operator's residences, offices, or other structures involved with the operation of the composting facility).
8.6.18 Design Provisions for Fire and Explosion Prevention, Protection, Suppression and Control
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(A) The facility shall be designed and constructed to prevent and minimize the potential for fire or explosion;
(B) Facility design shall include provisions to monitor and inhibit spontaneous combustion and fire hazards;
(C) The facility shall contain a properly designed fire suppression system with sufficient capacity to adequately control a fire within the facility.
8.6.19 Communication System Design - The facility shall be designed with adequate communication systems to support normal and emergency operating conditions to include at least:
(A) An internal communication or alarm system, capable of providing immediate emergency instruction by voice or signal to facility personnel, must be available and in working condition at the immediate operating area of the facility;

(B) An external communication system, capable of summoning emergency assistance from local police, fire departments, emergency medical services, and from state and local emergency response agencies, must be available and in proper working condition at the immediate operating area of the facility.
8.6.20 Back-up Power Supply - The facility shall be designed with a back-up power supply to meet facility needs during facility outages and to provide adequate power during emergencies, including fires.
8.6.21 Facility Support Equipment Requirement - The facility shall have sufficient types and quantities of equipment to support operations.
8.6.22 Storage Area for Replacement Parts and Equipment - A properly sized replacement parts and equipment storage area shall be included in the facility.
8.7.00 MIXED SOLID WASTE COMPOSTING OPERATING STANDARDS
8.7.01 General Operating Standards - The facility shall meet all regulations set forth in this rule and its sub-sections and shall comply with the provisions and limitations of all other pertinent regulations of the Department, including the General Operating Standards in Solid Waste Regulation No. 1.
8.7.02 Public Access Hours
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(A) Public access to the facility shall be limited to hours in which authorized operating personnel are on duty;
(B) Public access to the facility shall be prohibited when the facility is closed.
8.7.03 Fencing and Gate Operation - Gates shall be locked and all access points shall be secured when the facility is closed and when no authorized personnel are on site.
8.7.04 Signs
(A) There shall be a sign erected at the entrance to the facility, which is clearly legible and visible, and which shall contain at least the following information:
(1) Name of facility and operator,
(2) Emergency phone number,
(3) Restricted (prohibited) materials,
(4) Operating hours and days open;
(B) There shall be adequate directional signs at the entrance and within the grounds of the facility to direct drivers to the appropriate loading area, assist in traffic flow, and regulate speed on facility property.
8.7.05 Traffic Flow
(A) The facility operator shall employ procedures, controls, and operating schedules to promote even traffic flow, to prevent traffic back-ups, and to keep open the access way for emergency vehicles;
(B) The facility operator shall ensure that refuse vehicles unload waste promptly in loading areas.
8.7.06 Waste Screening and Inspection Operations
(A) The operator shall implement waste receiving area control measures that provide for the screening and inspection of the incoming waste stream to prevent the acceptance of prohibited or unauthorized waste types and to remove unsuitable material, including household hazardous wastes, prior to the initiation of processing.
(B) All wastes received by the facility shall be subject to the screening and inspection procedures, per (A) above.
(C) Prohibited wastes shall include, but not necessarily be limited to, regulated hazardous waste, regulated medical waste, loads identified as unprocessed or unsegregated construction and demolition debris, and loads mostly consisting of non-organic wastes.
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(D) With respect to recyclable materials (if any) in the incoming waste loads, the facility shall be operated in compliance with all State of Rhode Island requirements regarding source segregation of recyclable materials and ,correspondingly, the maximum allowable recyclable materials content in the incoming loads of solid waste, in compliance with the "Rules and Regulations for Reduction and Recycling of Municipal Solid Waste" and the "Rules and Regulations for Reduction and Recycling of Commercial and Non-Municipal Residential Solid Waste".
(E) Relative to composting, unsuitable wastes shall include wastes, that if put through the composting process will adversely affect compost quality, These wastes include, but are not necessarily limited to, household hazardous waste, used motor oil, asbestos, lead-acid batteries, white goods and other bulky waste. These wastes (if any) shall be removed during initial inspection and separation of such wastes or during pre-processing (if any) of the waste stream, prior to composting of the remaining waste stream.
(F) Hazards to processing equipment (if any) shall be identified and removed prior to processing. These include explosives, gas canisters that can explode, oversized materials, etc..

(G) Bags of municipal solid waste (MSW) shall be manually or mechanically opened to expose all content for inspection and sorting or processing.

8.7.07 Characterization of Wastes

The facility owner or operator shall immediately notify the Department if incoming waste analyses indicate there is a significant change in quality or make-up of the incoming waste stream.

8.7.08 Restrictions On Co-Composting Wastes (Sewage Sludge, Septage, and Other Amendments)

(A) If the facility co-composts sewage or septage, as a source of nitrogen, then testing and analyses of these uncomposted material(s) shall be as described below. If the facility proposes to co-compost other material(s) as a source of nitrogen or if any other amendments will be made to the incoming waste stream, such as addition of bulking agents then the Department shall be notified, prior to the use of the proposed composting material and the Department shall determine whether or not such amendment will be allowed and will provide the details of testing required, if any.

(B) If sewage sludge or septage is to be co-composted, then this uncomposted waste shall be tested initially, prior to co-composting, and thereafter at least annually for the complete TCLP set of parameters and the lab test results from each test shall be submitted to the Department to verify that this uncomposted waste is not a hazardous waste.

(C) If sewage sludge or septage is to be co-composted, then additional characterization of this waste shall be done initially, prior to co-composting and thereafter at least annually. This characterization shall include analyses for total Kjeldahl nitrogen, ammonia nitrogen, nitrate, nitrite, total phosphorus, total potassium, pH, total solids, total volatile solids, cadmium, copper, total chromium, mercury, nickel, lead, arsenic, molybdenum, selenium, and zinc.

8.7.09 Incoming Mixed Solid Waste Storage and Schedule for Processing

(A) All incoming waste, that is not immediately processed shall be confined to the designated storage area for such waste, until processing occurs;

(B) Incoming waste shall be processed within three (3) days or disposed of in a manner acceptable to the Department, unless an alternate option is approved by the Department;

(C) If the composting facility (including, but not limited to up-front processing operations and/or composting operations) is out of service for a longer period of time than the storage capacity of the site will allow, than additional solid waste shall not be received at this facility during the outage period.

8.7.10 Substitute Disposal Provisions

(A) The facility must have an alternate method of disposal, in writing, with another in-state or out-of-state licensed solid waste management facility for by-passing of incoming solid waste in the event of equipment failure or forced shut-down or other reason which prevents the facility from receiving or processing a part or all of its normal solid waste input or maintaining acceptable operating conditions and environmental controls.

(B) If, for any reason, the facility becomes inoperable, the owner or operator shall notify the Department within 48 hours and implement this contingency disposal plan immediately.

8.7.11 Bulky Waste, Special Waste, and Prohibited Waste Handling Procedures and Removal

If any or all of these categories of waste are received by the facility (in the incoming mixed waste stream) and are not immediately removed off-site for recycling or disposal, then they shall be stored in a manner and for a time period that is approved by the Department, as provided for in the approved operating plan.

8.7.12 Recyclables Handling Procedures and Removal

(A) Removal and handling of waste for recycling, salvage, or utilization shall be performed in a controlled manner that does not impede the proper operation of the facility, that ensures the health and safety of all persons engaged in such activities, and prevents nuisances and vector intrusion.

(B) Recyclables that are separated from the mixed waste stream and not immediately removed off-site for recycling shall be stored in a manner and for a time period that is approved by the Department, as provided for in the approved operating plan.

8.7.13 Non-Compostable Residuals Handling Procedures, Removal, and Disposal

(A) Any non-compostable residuals from up-front processing or from composting operations, if not immediately removed off-site for disposal, shall be stored in a manner for a time period that is approved by the Department, as provided for in the approved operating plan.

(B) Any storage of residuals (if any) shall be done in a manner that prevents nuisances and vector intrusion.

(C) Disposal of residuals shall be at a licensed solid waste management facility, except if the residuals can be recycled off-site.

8.7.14 Compostable Waste Composting Procedures
(A) Control of Decomposition Rates - The initial carbon-to-nitrogen ratio of the feed-stock shall be within an acceptable range such that it is low enough to provide sufficient nitrogen nutrients for vigorous composting, yet it is high enough to minimize ammonia formation and other odors. If a feed-stock requires the addition of a nitrogen source to achieve the desired C:N ratio, then the operator shall avoid excessive addition that may result in ammonia dissipation.
(B) Moisture Control and Moisture Monitoring
(1) Percent moisture content in the composting waste shall be maintained within an acceptable range such as to sustain the desired level of microbial activity necessary for the desired rate of decomposition of the waste and to prevent over-drying of the pile.
(2) The owner/operator shall provide a source of water at the facility to be used for maintaining proper moisture levels in the composting piles. The quality of water shall be such that it does not contribute significant contaminants to the composting wastes.
The capability to add moisture uniformly throughout the piles or bed of composting waste at any time during the composting process shall be provided.
(C) Air Flow Control
(1) Sufficient aeration of the composting waste shall be provided so as to:
(a) Result in aerobic biochemical decomposition of the organic material.
(b) Enable temperature control.
(2) Air flow shall be properly controlled. Insufficient aeration shall be avoided to prevent elevated temperatures that retard microbial activity and to prevent anaerobic decomposition that result in foul odors and production of plant toxins. Excessive air flow shall be avoided so as to prevent over-drying and cooling of the pile or bed.
(3) To Ensure Adequate Aeration
(a) Windrow Composting Method - the windrows shall be turned (aerated) as often as necessary to maintain aerobic conditions.
(b) Aerated static pile composting - piles shall be mechanically aerated as often as necessary to maintain aerobic conditions.
(c) Enclosed vessel composting - aeration of the vessel and turning of materials in the vessel shall be such as to maintain aerobic conditions.
(D) Mechanical Agitation or Turning of Waste - A schedule for agitation or turning of the waste shall be implemented that provides for thorough mixing of make-up water added to the waste, enables uniform air circulation to ensure uniform microbial activity, aerobic composting, and rapid decomposition, and blends and breaks up material from top to bottom in the pile or bed to enable production of a homogeneous product.
Note: This does not apply to aerated static pile composting.
(E) Pathogen and Weed Seed Control - A Process to Further Reduce Pathogens (PFRP) is required during the composting process as follows (which will also inactivate weed seeds):
(1) Windrow Composting Method - A minimum of five turnings of the windrow is required during a period of 15 consecutive days, while simultaneously maintaining the temperature of the waste mixture at not less than 55 degrees C (131 degrees F) within 6-8 inches below the surface of the pile. In turning the windrow, the exterior of the pile shall be turned into the interior to ensure that all solid waste is exposed to composting conditions.
(2) Aerated static pile composting method - The pile shall be insulated (e.g. using a 6-12" layer of sawdust, wood chips, or cured compost) and a temperature of not less than 55 degrees C (131 degrees F) must be maintained throughout the compost pile for at least three consecutive days.
(3) Enclosed vessel composting - The mixture in the vessel shall be maintained at a temperature not less than 55 degrees C (131 degrees F) throughout the mixture for at least three consecutive days.
(4) If other Department-approved composting methods are employed, operating practices shall reduce pathogens to the extent equivalent to the reduction achieved in any of the above methods, and such operating practices shall be approved by the Department.
(F) Temperature Monitoring
(1) Monitoring of the temperature of the waste during the composting period must be performed to ensure proper temperature ranges to destroy pathogens and inactivate weed seeds as well as to maintain proper conditions for microbial activity necessary for decomposition of the waste.
(2) During the period when conditions necessary to achieve PFRP are being maintained, the following temperature monitoring requirements shall be employed (during PFRP verification):

(a) Windrow composting -Daily temperature readings shall be taken, at equally spaced intervals, for at least (no greater than) every thirty feet of windrow length, but in no case shall there be less than two sets of readings for each windrow. Monitoring shall be at 6-8 inches and 18-24 inches below the pile surface.
(b) Aerated static pile composting - Daily temperature readings will be taken, at equally spaced intervals for at least (no greater than) every 20 feet of pile length, but in no case shall there be less than two sets of readings for each pile. Monitoring shall be at 6-8 inches and 18-24 inches from the outlet of the aeration pipe and at 6-8 inches, 18-24 inches below the pile surface at locations that are not adjacent to an aeration pipe.
(c) Enclosed Vessel Composting - Daily temperature reading shall be taken, monitoring 6-8 inches and 18-24 inches inside the vessel wall and 6-8 inches from the aeration piping when operating in the positive pressure mode. As an option (due to variability of design among vessel options), the temperature monitoring plan shall be system specific and must prove to the Department's satisfaction that it will be adequate to determine if PFRP conditions are being met.
(d) Temperature readings shall be taken in the same locations each day and an arithmetic average shall be calculated for each day's readings.
(3) Throughout the entire composting process the temperatures of the waste being composted must be monitored and recorded at least once each working day. The details of the daily monitoring program shall be provided to the Department, in the facility's operating plan, and shall be reviewed for adequacy on a case-specific basis.
(G) Compost Curing Considerations
(1) Compost curing shall be performed in static piles or windrows.
(2) Proper moisture levels shall be maintained in the curing piles, in order to sustain microbial activity.
(3) Aerobic biochemical decomposition conditions shall be sustained in the piles or windrows, throughout the curing phase.
(H) Compost Residence Time - Active composting and curing shall be sufficient time to satisfy and comply with PFRP and produce a stable, non-odorous product.
8.7.15 Odor Control
(A) The operator shall prevent and eliminate conditions that create odors.
(B) The facility shall be operated to control any odors that are created.
(C) The facility shall not discharge air pollutants which cause objectionable odors off-site (beyond the facility's property line). Odor evaluations shall be conducted by Department personnel to determine if an odor is objectionable by taking into account its nature, concentration, location, duration and source.
(D) The composting facility must establish an odor complaint hot line. The facility must have the ability to receive calls on a twenty-four (24) hour per day basis. (An answering machine may be used for this purpose.) Complaints received during normal operating hours must be investigated and responded to immediately. Complaints received during times when the facility is closed must be investigated and responded to within twelve (12) hours from when the complaint is received. All complaints received by the facility and actions taken in response to the complaints must be reported to the Department within twenty-four (24) hours from when the complaint was received. The facility operating plan must indicate how the odor complaint hot line will be established and what actions will be taken when odor complaints are received. Odor complaint forms must be created and maintained by the facility.
8.7.16 Vector Control - The facility shall not operate unless any on-site vector population is minimized by appropriate techniques to protect public health as follows:
(A) Conditions shall be maintained that are sanitary and therefore unfavorable for the harboring, feeding, and breeding of vectors.
(B) Control of insects and rodents, when needed, shall be effected by means of a program directed by a professional exterminator utilizing insecticides and/or rodenticides or other means approved by the Department. Use of such pesticides shall be performed with care, such that composting waste and finished compost is not contaminated by these agents.
(C) The operator shall inspect the facility daily to detect any vectors and promptly take corrective action.
8.7.17 Litter Control
(A) The operator shall not allow solid waste, composting waste, finished compost, or other materials or wastes to be blown or otherwise undesirably deposited off-site.
(B) The operator shall inspect the facility's property daily to detect litter and promptly take any necessary and corrective actions.
8.7.18 Dust Control

(A) The operator shall prevent and eliminate conditions that create dust.
(B) The operator shall use suitable methods and take appropriate actions at all times to control dust at the facility, also including access roads to and from the facility and other areas related to facility operation.
(C) The operator shall inspect the facility daily to detect any dust accumulation and promptly take corrective action.
8.7.19 Hot Spot Monitoring and Control - The operators shall inspect the facility daily to detect hot spots in a storage or composting area and promptly take corrective action, when necessary.
8.7.20 Open Burning Prohibition - Open burning of any type shall be prohibited at a facility.
8.7.21 Air Standards
(A) The operator shall prevent fugitive air contaminants to a level acceptable to the Department, and otherwise prevent and control air pollution.
(B) With respect to air standards, the facility shall not violate state implementation plans approved or promulgated pursuant to Chapter 23-23, 1956 R.I.G.L., as are or as amended, the rules and regulations adopted to implement such chapter, and the Clean Air Act, 42 U.S.C. 7401 et seq., as is and as amended.
8.7.22 Surface Water Pollution - The facility shall not cause pollution of the surface waters of the United States so as to violate the Water Pollution Act, 1956 R.I.G.L., Chapter 46-12, as is or as amended, Section 402 of the Clean Water Act, 33 U.S.C. 1251 et seq., nor shall the facility cause a discharge of dredged material or fill in violation of section 404 of the Clean Water Act, as is or as amended.
8.7.23 Groundwater Pollution - The facility shall not cause pollution of any groundwater. In addition, the facility shall comply with the requirements of the Clean Water Act, 33 U.S.C. 1251 et seq., and the regulations adopted pursuant to the Act, specifically 40 CFR 257.3-4, as are or as amended.
8.7.24 Surface Water/Stormwater Control and Erosion Control
(A) Surface water and stormwater shall be diverted away from the operating area, to include all areas where waste is received, stored, processed, and composted, and cured, as well as the finished compost storage area and any waste residual storage area.
(B) Surface water, stormwater, and any other water that comes in contact with wastes stored for composting, waste being processed or composted or cured, compost waste residue, or processed material which does not meet the specifications for finished compost shall be considered leachate and shall be diverted to the collection area for proper disposal or shall be re-used in waste processing or composting.
(C) The facility owner and/or operator shall employ procedures to prevent and minimize erosion and sedimentation during construction, operation, and after closure.
8.7.25 Leachate and Waste Water Control
(A) All leachate must be managed by a Department approved method and treated, if necessary, to meet any applicable requirements.
(B) The facility shall contain, collect, recycle, or properly dispose any and all liquid waste received or generated at the facility.
(C) Any waste water and liquid waste that is not recycled, but instead disposed, shall be disposed in a manner that does not pollute any source of private or public water supply, any waters of the state, or groundwater.
8.7.26 Operational Records Requirements - The owner or operator shall record and shall maintain (for at least three (3) years) the following information regarding daily facility activities. Records shall be available for inspection by Department personnel during normal business hours. Daily records and logs shall include the date of the event.
(A) Source, description and quantity of all wastes received at the facility, as well as additives, seed material, bulking agents, or other materials to be used in the composting process, recorded on a daily basis, on their day of receipt;
(1) The "source" shall include the name and address of the generator or point of origin of such waste, additive, seed material, bulking agent, or other material used in the composting process,
(2) "Wastes" shall include both compostable and non-compostable wastes and shall be recorded individually and separately, whenever such wastes are received in segregated forms,
(3) "Quantity" shall be the weight or volume of waste, additives, seed material, bulking agents or other materials received and the quantity of each type of material shall be recorded individually and separately.
(B) Description and quantity, by weight or volume, of prohibited or non-processible wastes transported from the facility and destination of such waste, recorded on a daily basis. These wastes shall include, but not be limited to,

any hazardous, non-permitted, bulky, or other special wastes in the incoming waste stream which have been separated out.
(C) Description and quantity, by weight or volume, for each category of recyclable, salvaged, or recovered material transported from the facility and destination of such waste, recorded on a daily basis.
(D) Description and quantity, by weight or volume, of compost residues, or other processed non-compostable residue or foreign matter transported from the facility for disposal and destination of such solid waste, recorded on a daily basis.
(E) Description and quantity by weight or volume, of any waste by-passed by the facility in the event of equipment failure or forced outage or other reason which prevents the facility from receiving or processing this waste. This daily record shall indicate that this is by-passed waste and shall indicate the reason for by-passing the waste and the destination of such waste.
(F) Quantity of non-marketable composted material, by weight or volume, transported from the facility for disposal and destination of such material, recorded on a daily basis. This record shall indicate that the material is non-marketable and the record shall indicate the reason (lack of market, does not meet market specifications, does not meet product quality standards for Class "A", "B", or "C" compost or other reason).
(G) For both bagged and bulk compost, the quantity by weight or volume, of finished, marketed compost, transported from the facility, and the planned location and proposed use of the compost, for each compost procurer or buyer of greater than ten (10) cubic yards of compost, recorded on a daily basis. The name and address of each procurer or buyer shall be recorded and if bulk compost is being procured, the compost batch I.D., (see (xii) below) shall be recorded. Also, signatures of the facility's representative and the user shall be recorded.
(H) A daily temperature log, for each monitoring point in compost piles, windrows, or beds, which at least includes the monitoring point I.D., (including identification of particular composting pile, windrow or bed and location within the pile, windrow or bed), age of the pile, windrow or bed at the particular monitoring point (i.e., number of days since composting commenced), date, time, temperature reading, data collection method and name of person collecting data.
(I) A daily moisture log, which describes composting pile, windrow or bed inspections and any actions taken to maintain proper moisture, including addition of water as necessary.
(J) For windrow method of composting, a daily log to be kept for each windrow, which includes windrow I.D., date composting commences, and dates of turning of the windrow (to aerate and mix pile). For other methods of composting, a daily log to be kept, which includes pile or bed I.D., date composting commences and dates of aeration of the pile or bed.
(K) A composting time retention log, which identifies, for each pile, windrow, or bed being composted, the total number of days elapsed from commencement of composting to completion of the entire composting processing [including high-rate decomposition, stabilization, curing and refining, (if applicable)].
(L) If sewage sludge or septage is co-composted, all lab analyses of all tests performed on representative samples, shall be retained. If the Department requires sampling and testing of any other wastes, additives, bulking agents, or other materials, than those lab analyses shall also be retained.
(M) Relative to sampling and testing, and classification of finished compost:
(1) A sampling log shall be kept with an entry for each batch of finished compost to be sampled and tested, per the approved sampling plan, to include the compost batch I.D., the date and time of sampling, the sampling method and location, the name of the person performing the sampling, and the lab to which samples were sent.
(2) All lab analyses of all tests performed on samples of finished compost shall be retained.
(3) A compost classification log shall be kept, which includes, for each batch of finished compost, the compost batch I.D., the classification assigned to that batch, and supporting information used by the facility's owner/operator to justify assigning that classification.
(N) A record of actions log, which provides a summary of corrective actions taken by the facility owner/operator, relative to any deficiencies noted in Department inspection reports and relative to any deficiencies or violations issued by the Department in letters of deficiency or notices of violations.
(O) Summary of all maintenance procedures on processes, equipment, or monitoring and control systems, and site inspection records.
(P) Personnel Training Records - Training records that document the type and amount of training received by current facility personnel shall be maintained at the facility in accordance with the operating plan.
(Q) Any other records to be kept, as required by the Department or as provided in the approved operating plan.

8.7.27 Operational Reports to DEM - The facility owner and/or operator shall provide periodic written reports of operation, if required by DEM per the approved license. The details and frequency of reporting shall be provided in the approved operating plan or as license conditions.
8.7.28 Facility Equipment Requirements
(A) The operator shall maintain on-site equipment necessary for facility operation in accordance with the license. The equipment shall be maintained in an operable condition.
(B) Replacement equipment and parts for equipment which is subject to excess wear or frequent breakdown, due to the nature of operation shall be stored on-site or at a place where it can be available within twenty-four hours, to provide expedient repair.
(C) If a breakdown of operator's equipment occurs, standby equipment shall be utilized as necessary to comply with any license condition.

8.7.29 Facility Inspection and Maintenance
(A) The operator of the facility shall maintain all facility components, systems, and equipment in a manner that facilitates proper operation and minimizes downtime.
(B) Immediately following the initiation of facility operation, facility personnel shall begin routine inspection for operating effectiveness and equipment/component/system deterioration or malfunction.
(C) A planned maintenance and overhaul schedule for major equipment shall be established and executed during facility operation.
8.7.30 Health and Safety
(A) The facility shall be designed, operated, and maintained in such a manner so as to protect the health and safety of users of the facility and personnel associated with facility operation, and persons in close proximity to the facility.
(B) First aid facilities and supplies shall be available at the facility.
8.7.31 Fire Prevention and Protection
(A) The facility shall be maintained and operated to prevent and minimize the potential for fire or explosion.
(B) The facility shall have a suitable quantity of water at sufficient pressures suitable for fire-fighting purposes and approved by the local fire authority.
(C) Portable fire extinguishers and fire control equipment shall be available and in proper working condition, at the operating area of the facility.
8.7.32 Emergency Support Services - The facility shall have arrangements, in writing, from nearby fire department, police department, rescue service, medical service, hazardous waste emergency response company, and hazardous waste transporter to provide emergency services in case of facility fires, explosions, hazardous waste incidents or other similar emergencies.
8.7.33 Personnel Staffing Requirements
(A) There must be at least one trained attendant (trained in the operation of the facility) on site during any and all operating hours that the facility is open to receive waste.
(B) The facility shall maintain sufficient types of quantity and personnel during each operating shift to assure the proper and orderly operation of all components and systems, along with the ability to handle all routine maintenance requirements. Such personnel shall have sufficient educational background, employment experience, and/or training to enable them to perform their duties in a safe and competent manner.
8.7.34 Facility Management
(A) Each operating shift shall have a designated shift supervisor or equivalent to direct and implement operational decisions during that shift.
(B) The operation of the facility shall be under supervision and control of qualified individual(s) during all operating hours.
8.7.35 Personnel Training Programs
(A) There shall be a comprehensive training program for all employees covering normal job responsibilities and procedures, emergency situations and procedures, and safety issues.
(B) Employees involved with operation and/or maintenance of the facility shall receive training at least annually.
(C) Facility specific training manual(s) shall be used for training facility personnel. The manual(s) shall be kept up-to-date, with any necessary revisions made at least annually. The manual(s) shall be kept in a readily accessible location and shall be available for inspection by the Department.
(D) Operating and maintenance personnel shall receive their initial training prior to assumption of operational/maintenance activities.
8.7.36 Emergency Contingency Plans - Contingency plans and procedures to handle fires, explosions, hazardous waste incidents and similar emergencies shall be developed for facility personnel and in conjunction with local authorities (police, rescue, fire, medical groups, hazardous waste response companies and transporters), prior to facility operation.
8.7.37 Operation and Maintenance Manual - An operations manual of policies and procedures specific to the facility shall be prepared and updated as needed and available at the facility for inspection by the Department. It shall include general design information, and detailed operational information and instructions that enable supervisory and operating personnel to determine sequence of operations, and routine maintenance procedures with schedules to be followed. Also, it shall include, safety requirements and procedures, emergency shutdown procedures and trouble-shooting procedures.
8.7.38 Finished Compost Storage and Removal

(A) The amount of finished compost stored at the facility shall not exceed the designed finished compost storage capacity.
(B) Storage of finished compost on site is limited to twelve months. Any finished compost that is not used or sold within twelve months shall be removed from the site.
(C) Processed material which does not meet specifications for compost shall be managed by the facility as residual waste and shall be disposed of off-site in a manner and schedule consistent with testing, approved by the Department.
(D) Incoming solid waste shall not be mixed with finished compost. In order to discourage re-introduction of contaminants, pathogens, and weed seeds, finished compost shall not have any such unprocessed waste mixed in.
(E) Finished compost shall not be stored where continuous or intermittent contact can occur between compost and groundwater.
(F) Finished compost shall be stored in a manner which does not create a dust or odor nuisance for off-site receptors.
8.7.39 Facility Closure Plan
(A) The facility's owner/operator shall notify the Department at least three months prior to the anticipated date that closure operations are to begin.
(B) The facility must implement the approved closure plan.
(C) Requests for deviations from the previously approved closure plan shall be in writing, including an updated final closure plan, if appropriate, and written approval from the Department must be obtained prior to implementation.
(D) After the closure plan has been fully implemented, the Department shall be notified so that an inspection may be made by Department personnel. A list of deficiencies, if any, will be returned to the owner of the facility. A final Department inspection will be required after all deficiencies are corrected.
(E) A professional engineer registered in the state of Rhode Island must certify that the facility is properly closed in conjunction with its approved closure plan.
8.7.40 Transportation Requirements - Any incoming sewage sludge or septage (if any) shall be transported to the facility in vehicles which are properly sealed, watertight and covered while in transit so as to prevent any leakage or dropping of such waste.
8.7.41 Compost Distribution - Compost product offered for distribution shall meet the requirements of Rhode Island General Laws, Chapter 22 "Rhode Island Soil Amendment Law" and those parameters outlined in Rule 8.8.00, "Compost Product Requirements and Distribution".
8.8.00 COMPOST PRODUCT REQUIREMENTS AND DISTRIBUTION
8.8.01 Compost Quality Standards - This rule applies to compost produced in all types of composting facilities subject to these regulations. The parameter limits for three classes of compost, Class "A", Class "B" and Class "C", are established in this section. [The allowed uses of these three classes of compost are provided in Rule 8.8.03]. Any finished compost which does not meet the limits established for Class "A" or Class "B" compost shall be considered Class "C" where specific Class "C" limits for heavy metals are omitted.
(A) Heavy Metal Limits - mg/kg (dry weight) - maximum allowed

Parameter	Class "A"	Class "B"
Arsenic	41	75
Cadmium	39	85
Chromium (total)	1200	3000
Copper	1500	4300
Lead	300	840
Mercury	17	57
Molybdenum	75	75
Nickel	420	420
Selenium	36	100
Zinc	2800	7500

(B) Toxic Organics - mg/kg - maximum allowed

Parameter	Class "A"	Class "B"	Class "C"
PCB (total)	1.0	1.0	10

(C) Pathogens - Pathogens include bacteria, viruses, protozoa, helminth and fungi. All classes of compost shall be produced from a process to further reduce pathogens (PFRP). Acceptable composting measures to result in PFRP conditions are provided in Rule 8.7.14(E). Additionally, all classes of compost produced from mixed solid waste shall have a fecal coliform density less than 1,000 Most Probable Number per gram of total solids (dry weight)

(1,000 MPN/gTS) OR a Salmonella density less than 3 Most Probable Number per 4 grams of total solids (3 MPN/4gTS).
(D) Foreign Matter - % dry weight - All classes of compost shall not contain glass, metal, etc. (i.e.: foreign materials) that exceed the limits below. The weight fraction of all foreign matter may be no greater than the limits as follows:
Parameter Class "A" Class "B" Class "C"
Foreign matter 1% 2% 4%
(E) Particle Size Distribution
(1) Class "A" limit: 100% < 10mm (0.39") particle size
(2) Class "B" limit: 100% < 10mm (0.39") particle size
(3) Class "C" limit: 100% < 25mm (0.98") particle size.
(F) Electrical Conductivity (maximum soluble salts) - The optimal range for growing media, i.e., compost amended soil, is 0.5-4.5 mmhos/cm. Acceptable levels will vary according to end user application. Compost producers shall provide electrical conductivity information on labels or in other product literature, for the intended end-user application and comply with user industry standards.
(G) pH - The acceptable pH level will vary according to end user application and will generally be in the 5.5-8.5 range. Compost producers shall provide pH information on labels or in other product literature, for the end-user application and comply with user industry standards.
(H) Maturity and Stability
(1) Class "A" compost and Class "B" compost shall be brown to black in color and shall have a reduction in organic matter, via the composting process, of at least 60% as measured by reduction in volatile solids. It shall be sufficiently stable, such that it does not reheat, upon standing, to greater than 20 degrees C above ambient temperatures. Other techniques or measures, subject to the approval by the Department may be substituted for the above to demonstrate an equivalent maturity and stability.
(2) Class "C" compost shall be light to dark brown or brown to black in color and shall have a reduction in organic matter, via the composting process, of at least 40%, as measured by reduction in volatile solids. It may reheat, upon standing, to greater than 20 degrees C above ambient temperature. Although it may not be a very stable compost, it shall at least be of a state which does not create a nuisance (odor or vector) problem, during storage or when applied by the end-user. Other techniques or measures, subject to the approval by the Department, may be substituted for the above to demonstrate an equivalent maturity and/or stability.
(3) Relative to compost pile stability, temperature measurements, to determine reheat characteristics, shall be at a point two feet into the pile from its outside surface.
(4) Additionally, all classes of compost produced from waste that included sewage sludge and/or septage as a co-composting material shall be produced from a composting process, whereby the temperature of the composting waste is kept at 40 degrees C for at least 14 days and the average temperature of the composting waste during this 14 day period is greater than 45 degrees C.
8.8.02 Compost Sampling and Testing Requirements - (This rule applies to all composting facilities.)
(A) Sampling and Testing Schedule (for final product)
(1) The Department shall establish an appropriate sampling and testing schedule for the start-up period (first year of operation).
(2) The frequency of sampling and testing shall be performed as specified in the facility's approved QA/QC plan, but it shall occur at a frequency not less than the following schedule, after the start-up period, unless otherwise approved by the Department:
Parameter Average Compost Frequency of
Set Produced Analysis*
#1 < 1 Dry ton per day semi-annual
#1 1-10 Dry ton per day monthly
#1 > 10 Dry ton per day weekly
#2 < 1 Dry ton per day annually
#2 1-10 Dry ton per day semi-annually
#2 > 10 Dry ton per day monthly
*All analysis shall be performed on samples composited from no less than three (3) grab samples, unless specific analysis protocol require otherwise (i.e.: specific analytical protocols may require analysis of grab vs. composite samples).

Parameters in Set #1 include heavy metals (arsenic, cadmium, chromium (total), copper, lead, mercury, molybdenum, nickel, selenium, and zinc), total solids, total volatile solids, total Kjeldahl nitrogen, ammonia nitrogen, nitrate, nitrite, total phosphorus, total potassium, and pH.
Parameters in set #2 include PCB's (total), % foreign matter, particle size distribution, electrical conductivity (soluble salts), and product stability (°C reheat or other approved measure).
(3) The Department may decrease or increase the frequency of required sampling and testing due to changes in the make-up of the facility's input waste stream, results of the monitored data, changes in the rate of compost production, or other appropriate factors.
(4) The Department may add or delete parameters to be analyzed due to changes in the make-up of the facility's input waste stream, changes in the pre-processing of waste prior to composting, results of the monitored data, Federal requirements (if any), or other appropriate factors.
(B) QA/QC Requirements
(1) Sampling and analysis shall be performed, using approved EPA protocols, and per the facility's QA/QC plan that has been approved by the Department.
(2) All analyses must be performed by a laboratory acceptable to the Department.
(3) Reports of Analyses shall include copies of laboratory results with all results reported on a dry weight basis except pH, total solids, and total volatile solids.
8.8.03 Compost Utilization, Distribution, and Labeling Requirements - This rule applies to compost produced in all types of composting facilities subject to these regulations. Class "A", Class "B", and Class "C" compost are defined, according to compost quality standards, in Rule 8.8.01. Any facility that produces and/or distributes compost must comply with the Department's Office of Natural Resource Services Commercial Fertilizer Law, as amended (Rhode Island General Law §2-7) and any other Rules and Regulations pertaining to fertilizer and soil amendment products. All fertilizer and soil amendment products must be registered with the Rhode Island Office of Natural Resource Services before being offered for sale.
(A) Class "A" Compost
(1) Class "A" Compost Utilization: Unrestricted use - this class of compost may be distributed for agricultural and non-agricultural use including, but not limited to, the following:
(a) Agricultural uses.
(b) Homeowner use.
(c) Nurseries and tree farms.
(d) Floriculture and turf-grass production.
(e) Other agricultural and horticultural uses.
(f) For landscape applications, including also highway medians and roadsides.
(g) For public parks and grounds, sports fields and stadiums, golf courses, cemeteries, and similar applications.
(h) On forest land.
(i) For land reclamation.
(2) Class "A" Compost Distribution and Labeling:
(a) Bagged or Packaged Compost - All compost that is bagged or distributed in any other packaged form shall be properly labeled. The label shall appear on the face or display side of the container and the label shall contain, at a minimum, the following information in a readable and conspicuous form:
(i) Net weight or volume of the contents.
(ii) Brand name, which shall include in its name or in a separate section of the label, an indication that it qualifies as R.I. Class "A", Class "B", or Class "C" compost (per compost quality standards within Rule 8.8.01.
(iii) The type of waste the compost product was derived from, including a listing of wastes that make-up the waste stream that was composted, any bulking agents, and any co-composting materials or wastes.
(iv) Recommended safe uses.
(v) Any restrictions (prohibitions) on use of the product.
(vi) Directions for application to soil (to include recommended land application rates).
(vii) Name and address of the registrant (distributor).
(viii) Warning to keep out of reach of children.
(ix) Electrical conductivity, and pH ranges of compost and the acceptable levels according to end user applications.
(x) If the recommended land application method does not include mixing or blending this product with existing on-site soils, then a statement that the product is "lead safe" but not "lead free" must appear on he package. If the product is "lead free", then no statement is required.

(b) Unpackaged or Bulk Distribution of Class "A" Compost - Unpackaged or bulk distribution shall mean Class "A" compost that are sold or given away in bulk (not in a bag or container) for application to the land. Class "A" compost that is sold or given away in a container holding more than fifty (50) pounds of Class "A" compost shall be considered unpackaged distribution. The requirements for the distribution of unpackaged Class "A" compost is based on volume as follows:
(i) Less Than Ten (10) Cubic Yards - Any distributor of Class "A" compost must provide, in writing, to all users taking less than ten (10) cubic yards per day the same information as required for bagged or packaged compost.
(ii) More Than Ten (10) Cubic Yards - Any distributor of Class "A" compost must provide a "User's Guide" to all users taking more than ten (10) cubic yards per day, in addition to the information required for bagged or packaged compost distribution. The "User's Guide" must be approved by the Department, and must include instructions on the proper use of the product for various applications.
The distributor must maintain written records of the following information: date the Class "A" compost was taken; name of user; amount of Class "A" compost taken, and its intended use and location; and signatures of the operator and the user. The distributor must also indicate in the records that the user received a "User's Guide". Said records must be available for inspection at all times.
(B) Class "B" Compost Utilization and Distribution: This class of compost may be distributed for agricultural and non-agricultural applicants with Department approval, and must be limited to bulk distribution only. Restrictions apply on use where crops are produced for direct human consumption, residential/homeowner use, any use with unrestricted public access, or any use where excessive ingestion of soil/dust may occur by children under seventy-two (72) months of age. All projects and/or locations utilizing Class "B" compost must obtain advance approval from the Department.
(1) Agricultural Utilization of Class "B" Compost - This subrule applies to the utilization of Class "B" compost as a fertilizer and/or soil amendment to enhance agricultural lands. Such uses may include, but are not limited to nurseries and tree farms, floriculture, and turfgrass production.
(a) Soil Analysis - Soil from the proposed land application site must be tested for metals and for the parameters listed in Rule 8.8.01 above. The Director shall determine the testing and reporting frequency. All soil analyses shall be the responsibility of the applicant.
(b) Land Application Rates - All Class "B" compost intended for agricultural utilization must be applied at an annual rate not to exceed the amount necessary to supply adequate available nitrogen for crop production using good agricultural practices or not to exceed the maximum annual rates recommended by the U.S. Department of Agriculture to achieve fertilizer benefits and soil improvement.
(c) Cumulative Loading Rates - The maximum amount of Class "B" compost that can be applied to a land application site shall be subject to satisfying either:
(i) Federal or Department determined Annual Pollution Loading Rate Limits, or
(ii) Federal or Department determined Cumulative Pollution Loading Rate Limits;
The amount of metals in the soil shall be deducted from each calculation.
(d) Crops - Food chain crops with harvested parts that touch the Class "B" compost/soil mixture and are totally above the land surface shall not be harvested for fourteen (14) months after application of Class "B" compost. Food chain crops with harvested parts below the surface of the land shall not be harvested for twenty (20) months after application of Class "B" compost when the Class "B" compost remains on the land surface for four (4) months or longer prior to incorporation into the soil. Food chain crops with harvested parts below the surface of the land shall not be harvested for thirty eight (38) months after application of Class "B" compost when the Class "B" compost remains on the land surface for less than four (4) months prior to incorporation into the soil. Food chain crops with harvested parts that do not touch the Class "B" compost/soil mixture, feed crops and fiber crops shall not be harvested for thirty (30) days after application of Class "B" compost. If a land application site receives Class "B" compost which meets the pathogen limits established for Class "A" compost, the requirement above may be waived. Soil pH must be maintained at 6.5 or higher to reduce solubility and plant uptake of heavy metals.
(e) Animal Grazing - Animals whose products are consumed by humans shall not be allowed to graze on land where Class "B" compost is applied for thirty (30) days after the last application of Class "B" compost has occurred. If a land application site receives Class "B" compost which meets the pathogen limits established for Class "A" compost, this requirement may be waived.
(f) Turf - Turf grown on land where Class "B" compost is applied shall not be harvested for one (1) year after the last application of Class "B" compost has passed when the harvested turf is placed on either land with a high

potential for public exposure or a lawn. If a land application site receives Class "B" compost which meets the pathogen limits established for Class "A" compost, this requirement may be waived.
(g) Public Access - Public access to land where Class "B" compost has been applied shall be prohibited by the owner or operator until such time as vegetative growth has been established on the site or one (1) year has passed since the last application of Class "B" compost to land with a high potential for public exposure, such as a park or ballfield or thirty (30) days has passed since the last application of Class "B" compost to land with a low potential for public exposure, such as private farmland. If a land application site receives Class "B" compost which meets the pathogen limits established for Class "A" compost, this requirement may be waived.
(h) Frozen Ground - No Class "B" compost shall be applied to frozen, flooded or snow-covered ground unless appropriate erosion and runoff control measures are provided.
(i) Groundwater - A minimum of two (2) feet of soil is required between the lowest level of Class "B" compost and the highest water table level established during the seasonal high groundwater table period determined by the Department in accordance with the Department's ISDS Regulations. In addition, a minimum of three (3) feet of soil is required between the highest level of bedrock and the lowest level of applied Class "B" compost.
(j) Surface Water - No Class "B" compost shall be land applied within fifty (50) feet of any body of surface water or within one hundred (100) feet of any body of surface water within the watershed of a public drinking water supply. The Director, may, if necessary, require continuous monitoring of any surface water courses in the vicinity of the proposed Class "B" compost application site. Such monitoring shall be of a type and frequency determined by the Director on a case-by-case basis and shall be the responsibility of the owner or operator. If the applicant demonstrates to the satisfaction of the Department that any runoff from the proposed project will not affect surface water, this requirement may be waived.
(k) Drinking Water Wells - No Class "B" compost shall be land applied within fifty (50) feet of any private drinking water supply well or within four hundred (400) feet of any public drinking water supply well. Land application of Class "B" compost shall be in accordance with the Rhode Island Groundwater Protection Act of 1985, General Laws Chapter §46-13.1, or as amended, and any rules and regulations promulgated thereunder.
(l) Distance to Property Lines - No Class "B" compost shall be land applied within fifty (50) feet of a property line.
(m) Monitoring Wells - Groundwater monitoring shall be of a type and frequency determined by the Director on a case-by-case basis and shall be the responsibility of the owner or operator.
(n) Erosion Control - All Class "B" compost application sites where the slope exceeds three (3) percent, or where runoff and erosion may result, shall be designed for appropriate erosion control measures (Rhode Island Erosion and Sediment Control Handbook, USDA, SCS, 1990). The maximum allowable annual soil loss shall not exceed three (3) tons per acre when applying the Universal Soil Loss Equation.
(o) Transportation - All Class "B" compost shall be transported in vehicles which are properly covered while in transit so as to prevent any dropping of Class "B" compost.
(2) Non-Agricultural Utilization of Class "B" Compost - This subrule applies to utilization of Class "B" compost as a fertilizer and/or soil amendment to enhance non-agricultural lands. Such uses may include, but are not limited to public parks and grounds, sand and gravel pit reclamation, roadsides and medians, silviculture, playgrounds, golf courses, ballfields and stadiums and cemeteries.
(a) Cumulative Loading Rates - The maximum amount of Class "B" compost that can be applied to a land application site shall be subject to satisfying either:
(i) Federal or Department determined Annual Pollution Loading Rate Limits, or
(ii) Federal or Department determined Cumulative Pollution Loading Rate Limits;
The amount of metal in the soil shall be deducted from each calculation.
(b) Public Access - Public access to land where Class "B" compost is applied shall be prohibited by the owner or operator until such time as vegetative growth has been established on the site, or one (1) year has passed since the last application of Class "B" compost to land with a high potential for public exposure, such as a park or ballfield or thirty (30) days has passed since the last application of Class "B" compost to land with a low potential for public exposure, such as a sand and gravel pit reclamation site. If a land application site receives Class "B" compost which meets the pathogen limits established for Class "A" compost, this requirement may be waived.
(c) Frozen Ground - No Class "B" compost shall be applied to frozen, flooded or snow-covered ground unless appropriate erosion and runoff control measures are provided.
(d) Groundwater - A minimum of two (2) feet of soil is required between the lowest level of Class "B" compost and the highest water table level established during the seasonal high groundwater table period determined by the

Department in accordance with the Department's ISDS Regulations. In addition, a minimum of three (3) feet of soil is required between the highest level of bedrock and the lowest level of applied Class "B" compost.
(e) Surface Water - No Class "B" compost shall be land applied within fifty (50) feet of any body of surface water or within one hundred (100) feet of any body of surface water within the watershed of a public drinking water supply. The Director, may, if necessary, require continuous monitoring of any surface water courses in the vicinity of the proposed Class "B" compost application site. Such monitoring shall be of a type and frequency determined by the Director on a case-by-case basis and shall be the responsibility of the owner. If the applicant demonstrates to the satisfaction of the Department that the proposed project will not affect surface water, this requirement may be waived.
(f) Drinking Water Wells - No Class "B" compost shall be land applied within fifty (50) feet of any private drinking water supply well or within four hundred (400) feet of any public drinking water supply well. Land application of Class "B" compost shall be in accordance with the Rhode Island Groundwater Protection Act of 1985, General Laws Chapter §46-13.1 and any rules and regulations promulgated thereunder.
(g) Distance to Property Lines - No Class "B" compost shall be land applied within fifty (50) feet of a property line.
(h) Monitoring Wells - Groundwater monitoring shall be of a type and frequency determined by the Director on a case-by-case basis and shall be the responsibility of the owner or operator.
(i) Erosion Control - All Class "B" compost application sites where the slope exceeds three (3) percent, or where runoff and erosion may result, shall be designed for appropriate erosion control measures (Rhode Island Erosion and Sediment Control Handbook, USDA, SCS, 1990). The maximum allowable annual soil loss shall not exceed three (3) tons per acre when applying the Universal Soil Loss Equation.
(j) Transportation - All Class "B" compost shall be transported in vehicles which are properly covered while in transit so as to prevent any dropping of Class "B" compost.
(C) Class "C" Compost Utilization and Distribution - This class of compost is restricted to use in locations with limited public access and must be limited to bulk distribution only. All projects and/or locations utilizing Class "C" compost must obtain advanced approval from the Department, and allowable uses are limited to the following:
(1) Landfill cover material (if approved by the landfill)
(2) Other uses, if approved by the Department, on a case-by-case basis, and which may be subject to satisfying either:
(a) federal annual pollution loading rate limits or Department determined annual pollution loading rate limits, or
(b) federal cumulative pollution loading rate limits or Department-determined cumulative pollution loading rate limits.
The amount of metal in the soil shall be deducted from each calculation.
(3) Transportation - All Class "C" compost shall be transported in vehicles which are properly covered while in transit so as to prevent any dust or dropping of Class "C" compost.
(D) Unlabeled Compost - Any bagged or packaged compost that does not contain all of the required information on the label and/or any bulk compost that does not have the required accompanying hand-out or other form of hard copy per Rule 8.8.03(A), 8.8.03(B), and 8.8.03(C) shall be considered solid waste and must be handled and disposed per Department solid waste disposal requirements, unless otherwise approved by the Department for use as compost or for other applications. This shall apply to compost produced from facilities in Rhode Island, as well as in other states, and distributed/marketed in Rhode Island for land application in Rhode Island.
(E) Improperly Labeled Compost
(1) Any bagged or bulk compost that is not in compliance with the required labeling details, per Rules 8.8.03(A), 8.8.03(B), and 8.8.03(C) respectively, shall be considered solid waste and must be handled and disposed per Department solid waste disposal requirements, unless otherwise approved by the Department for use as compost or for other applications. This shall apply to compost produced from facilities in Rhode Island, as well as in other states, and distributed/marketed in Rhode Island for land application in Rhode Island.
(2) No information or statement shall appear on any package, label, written hand-out, delivery slip, or other form of hard copy, or in any advertising matter which is false or misleading to the purchaser as to the use, value, quality, analysis, or composition.
(3) No person shall distribute or market an adulterated compost. The compost shall be deemed to be adulterated if:

(a) It contains any deleterious or harmful agent in sufficient amount to render it injurious to beneficial plant, animal, or aquatic life when applied in accordance with directions for use on the label (or on any written hand-out or other form of hard copy, relative to bulk compost), OR
(b) Adequate warning statements and directions for use, which may be necessary to protect plant, animal, or aquatic life are not shown upon the label (or on any written hand-out or other form of hard copy, relative to bulk compost), OR
(c) Relative to compost to be distributed/marketed as a soil amendment, if soil amending ingredients are listed or guaranteed on the label (or on any written hand-out or on other form of hard copy relative to bulk compost) and if the actual composition of such ingredients falls below or differs from that which it is purported to possess by its labeling, OR
(d) The compost is to be distributed/marketed as a soil amendment and the compost contains unwanted crop or weed seed or primary noxious or secondary noxious weed seed.
(F) Other Soil Amendment Considerations (1) If the compost is to be distributed/marketed as a soil amendment, then no soil amending ingredient may be listed or guaranteed on labels (or on any written hand-outs or other form of hard copy, relative to bulk compost) without the permission of the Director. The Director may allow a soil amending ingredient to be listed or guaranteed if satisfactory supporting data is provided to the Director to substantiate the value and usefulness of the soil amending ingredients.
(2) If the compost is to be distributed/marketed as a soil amendment, then each identified product (brand) shall be registered before being distributed/marketed in Rhode Island The application for registration shall be submitted to the Director on application forms furnished or approved by the Director and shall be accompanied by a fee of fifty ($50.00) dollars per product. The manufacturer of the compost shall submit to the Director a copy of the label (or written hand-out or other form of hard copy, relative to bulk compost) and any advertising literature proposed to be used, and these shall accompany the application for registration for each identified product. Prior to approving the application for registration of each product, the Director may require evidence to substantiate any claims made on the label, in written hand-outs or other forms of hard copy, or in advertising literature and the Director may also require proof of the value or usefulness of the compost. If the Director approves the registration application, then a certified copy of the registration shall be furnished to the applicant. All registrations expire on December 31 of each year.
(3) If the compost is to be distributed/marketed as a soil amendment, then it may be subject to additional considerations, per regulatory oversight by the Rhode Island Office of Natural Resource Services, as authorized per Title 2 "Agriculture and Forestry", Chapter 22 "Soil Amendment" of the Rhode Island General Laws of 1956, as re-enacted by Chapter 78 of the Public Laws of 1987, or as further amended.
8.8.04 Distribution and Marketing of Out-of-State Compost in Rhode Island - This rule applies to compost produced at an out-of-state composting facility (where the composting facility is of a type included under these regulations), which in turn is distributed and marketed in Rhode Island.
(A) Compost Quality Standards - Compost produced at an out-of-state composting facility which has not been approved by the Department for use in Rhode Island or which does not at least meet quality standards for Rhode Island Class "C" compost, per Rule 8.8.01, or which is produced by a composting facility which has not complied with the regulatory requirements of the state in which it is located, shall be deemed to be solid waste upon transfer to Rhode Island (unless it is determined to be hazardous waste) and shall be managed as such.
(B) Allowable Uses - Compost produced at out-of-state composting facilities may be marketed in Rhode Island in accordance with the allowed uses for compost produced in Rhode Island, per Rule 8.8.03.
(C) Sampling and Testing Requirements - Compost produced at out-of-state composting facilities must be sampled and tested in accordance with sampling and testing requirements for compost produced at Rhode Island composting facilities; per Rule 8.8.02, prior to distribution and marketing in Rhode Island.
(D) Storage Requirements - Any compost at an out-of-state composting facility, proposed for distribution and marketing in Rhode Island, shall not have been stored more than twelve months.
(E) Distributor Request for Approval to Distribute - Prior to initial distribution of the out-of-state compost in Rhode Island the distributor must obtain written approval of the Department. The distributor shall submit a written request for approval, which must contain at least the following:
(1) A copy of the permit, license, or other approval, if required, for the composting facility that produced the compost and the applicable rules and regulations from the state in which the compost is generated.
(2) Laboratory reports of results for a minimum of three analyses of the compost.

(3) A description of the process to further reduce pathogens (PFRP) employed by the composting facility that produced the compost, with appropriate monitoring data, as determined by the Department.
(4) A description of the distribution method, quantity of compost that will be distributed in Rhode Island, and proposed use(s) of the compost. If end-user(s) have been determined, the name and address of the user and the location of the site where the compost will be applied and purpose of application.
(5) If bagged compost (Class "A") will be distributed, a copy of the label to verify the information complied with Rhode Island requirements for labeling, per Rule 8.8.03(A), or is acceptable to the Department.
(6) If bulk compost will be distributed, a copy of printed literature for the product, to verify the information provided to the user complies with Rhode Island requirements, per Rule 8.8.03, or is acceptable to the Department.
(7) If any compost will be stored in Rhode Island, prior to distribution to the end-user, the address of the storage facility, a description of the storage facility, and volume of compost to be stored and storage duration.
(F) Compost Distribution Reporting Requirements - Each out-of-state distributor of compost, generated from an out-of-state composting facility and distributed to Rhode Island, shall submit an annual report to the Department within 60 days after the start of the calendar year. The report shall include, at least the following:
(1) The type and source of waste the compost is derived from.
(2) All information and analytical results, per sampling and testing requirements.
(3) The quantity of compost distributed in Rhode Island within the past year.
(4) A description of the product distribution in Rhode Island.
The foregoing "Solid Waste Regulation No. 8 - Solid Waste Composting Facilities" of the “Rules and Regulations for Composting Facilities and Solid Waste Management Facilities, January 1997 and as amended April 2001 and October 2005, after due notice, are hereby adopted as amended and filed with the Secretary of State this __ th day of October, 2005 to become effective twenty (20) days thereafter, in accordance with the provisions of Chapters 2-1, 2-22, 2-23, 5-51, 23-18.8, 23-18.9, 23-19, 23-19.1, 23-23, 23-63, 37-15.1, 42-17.1, 42-17.6, 42-35, 44-27, and 46-12 of the General Laws of Rhode Island of 1956, as amended.

South Carolina Department of Health
and Environmental Control

Regulation 61-107.4

SWM: Yard Trash and Land-Clearing Debris; and Compost

Effective Date: April 23, 1993

Bureau of Land & Waste Management
Division of Mining & Solid Waste Management
2600 Bull Street
Columbia, SC 29201

Disclaimer

This copy of the regulation is provided by DHEC for the convenience of the public. Every effort has been made to ensure its accuracy; however, it is not the official text. DHEC reserves the right to withdraw or correct this text if deviations from the official text, as published in the *State Register*, are found.

DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL
CHAPTER 61
Statutory Authority: 1976 Code
Sections 44-96-190 and 44-96-380 (1991)

R.61-107.4. Solid Waste Management: Yard Trash and Land-Clearing Debris; and Compost.

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A. Applicability. This regulation is to ensure the proper disposal and management of yard trash and land-clearing debris, and to encourage and regulate the production and use of compost made from yard trash and land-clearing debris.

B. Definitions.

1. "Backyard Composting" means the on-site composting of yard waste from residential, commercial, or industrial property by the owner or tenant for non-revenue generating use when all materials are generated and composted on-site.

2. "Biodegradable" means capable of being decomposed by natural biological processes.

3. "Buffer" means the space between two (2) entities reserved for non-activity.

4. "Compost" means the humus-like end product of the process of composting waste.

5. "Composting" means the process of making compost.

6. "Composting facility" means any facility used to provide aerobic, thermophilic decomposition of the solid organic constituents of solid waste to produce a stable, humus-like material.

7. "Composting Pad" means a surface, whether soil or manufactured, where the process of composting takes place, and where raw and finished materials are stored.

8. "Degradable" with respect to any material, means that the material, after being discarded, is capable of decomposing to components other than heavy metals or other toxic substances after exposure to bacteria, light, or outdoor elements.

9. "Department" means the South Carolina Department of Health and Environmental Control.

10. "Hygienically" means promoting health; sanitary.

11. "Land-clearing debris" means solid waste which is generated solely from land-clearing activities, but does not include solid waste from agricultural or silvicultural operations.

12. "Leachate" means the liquid that has percolated through or drained from solid waste or other man-emplaced materials and that contains soluble, partially soluble, or miscible components removed from such waste.

13. "Mesophilic stage" means a biological stage in the composting process characterized by active microorganisms which favor a moderate temperature, range of 20^{o} to 45^{o} C (68^{o} to 113^{o} F). It occurs later in a composting process after the thermophilic stage and is associated with a moderate rate of decomposition.

14. "Mulch" means wood chips, leaves, straw, etc., spread on the ground around plants to prevent evaporation of water from soil, freezing of roots, etc.

15. "Municipal solid waste landfill" means any sanitary landfill or landfill unit, publicly or privately owned, that receives household waste. The landfill may also receive other types of solid waste, such as commercial waste, nonhazardous sludge, and industrial solid waste.

16. "Owner/operator" means the person who owns the land on which a solid waste management facility is located or the person who is responsible for the overall operation of the facility, or both.

17. "Person" means an individual, corporation, company, association, partnership, unit of local government, state agency, federal agency, or other legal entity.

18. "Resource recovery facility" means a combination of structures, machinery, or devices utilized to separate, process, modify, convert, treat, or prepare collected solid waste so that component materials or substances or recoverable resources may be used as a raw material or energy source.

19. "Runoff" means any rainwater, leachate, or other liquid that drains over land from any part of a facility.

20. "Silviculture Waste" means waste materials produced from the care and cultivation of forest trees, including bark and woodchips.

21. "Solid Waste" means any garbage, refuse, or sludge from a waste treatment facility, water supply plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. This term does not include solid or dissolved material in domestic sewage, recovered materials, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to NPDES permits under the Federal Water Pollution Control Act, as amended, or the Pollution Control Act of South Carolina, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1964, as amended. Also excluded from this definition are application of fertilizer and animal manure during normal agricultural operations or refuse as defined and regulated pursuant to the South Carolina Mining Act, including processed mineral waste, which will not have a significant adverse impact on the environment.

22. "Solid waste management facility" means any solid waste disposal area, volume reduction plant, transfer station, or other facility, the purpose of which is the storage, collection, transportation, treatment, utilization, processing, recycling, or disposal, or any combination thereof, of solid waste. The term does not include a recovered materials processing facility or facilities which use or ship recovered materials, except that portion of the facilities which is managing solid waste.

23. "Thermophilic stage" means a biological stage in the composting process characterized by active microorganisms which favor a high temperature range of 45^{o} to 75^{o} C (113^{o} to 167^{o} F). It occurs early in a composting process before the mesophilic stage and is associated with a high rate of decomposition.

24. "Untreated woodwaste" means wood that has not undergone any type of treatment for preservation, etc.

25. "Vector" means an animal or insect that may transmit disease producing organisms from one host to another.

26. "Windrow" means an elongated compost pile.

27. "Yard trash" means solid waste consisting solely of vegetative matter resulting from landscaping maintenance.

C. General Provisions.

1. Effective May 27, 1993, disposal of yard trash and land-clearing debris in a municipal solid waste landfill or a resource recovery facility shall be prohibited, unless the landfill provides and maintains a separate yard trash and land-clearing debris composting area and the yard trash and land-clearing debris have been separated from other municipal solid waste.

2. Prior to the construction, operation, expansion or modification of a composting facility using yard trash and land-clearing debris and/or a wood chipping facility that chips untreated wood waste, the facility shall be registered by the Department.

3. This regulation does not apply to the following activities provided no public nuisance or any condition adversely affecting the environment or public health is created, and the activity complies with all other State and local laws, ordinances, rules, regulations, and orders:

a. Backyard composting where the compost is produced from materials grown on site;

b. Farming operations where the compost is produced from materials grown on the owner's land;

c. Mobile chipping/shredding equipment which chips/shreds woodwaste, e.g., the type used by utilities to clear rights-of-way or manage storm debris, and which may spread the woodwaste on rights-of-way after it has been chipped or shredded. Chipped/shredded woodwaste or storm debris, temporarily stockpiled in lieu of spreading after the effective date of this regulation, shall be removed within ninety (90) days in order to be exempt from the requirements of this regulation. The Department shall be notified in writing within ten (10) working days of the establishment of these stockpiles. In addition, any active piles as of the effective date of this regulation shall be removed within one hundred eighty (180) days of the effective date of this regulation. Inactive piles as of the effective date of this regulation are exempt from the requirements of this regulation;

d. Temporary chipping/shredding and storage of woodwaste for distribution to the public, e.g., Grinding of the Greens and other similar programs, as approved by the Department;

e. Shredding or chipping of untreated wooden pallets or other wooden packaging utilized by industry in its own operations that have not been in direct contact with hazardous constituents, e.g., petroleum products, pesticides, lead-based paint, etc.; and,

f. Composting at industrial sites where the compost is produced from materials grown on properties under the same ownership or control within one fourth ( ) mile of each other, unless otherwise approved by the Department and where the compost product is used for noncommercial purposes.

4. All State agencies, all political subdivisions using State funds to procure items, and all persons contracting with such agency or political subdivision where such persons procure items with State funds shall procure composted materials and products where practicable, subject to the provisions of Section 44-96-140(D) of the South Carolina Solid Waste Policy and Management Act of 1991.

5. Compost shall not be used in any manner that will endanger public health and welfare, and the environment, or would violate the provisions of this regulation.

D. Registration Requirements for Composting and Wood Chipping Facilities. Prior to the construction, expansion, or modification of a composting and/or wood chipping facility a report shall be submitted to and be approved by the Department. This report shall contain the following information:

1. Name and telephone number of the owner of the facility;

2. Name and telephone number of the person responsible for operation of the facility;

3. Procedure for prevention of fires;

4. Procedure for control of vectors;

5. Procedure for odor control;

6. Procedure for control and inspection of incoming waste;

7. Method for measuring incoming waste;

8. Procedure for control of storm water drainage;

9. Anticipated type, source, and composition of waste to be received; and,

10. Outline of a financial assurance mechanism for closure and post-closure procedures. Financial assurance requirements do not apply to local governments or regions comprised of local governments unless and until such time as federal regulations require such local governments and regions to demonstrate financial responsibility for such facilities.

E. Design Criteria for Composting and Wood Chipping Facilities.

1. Facilities located over closed-out landfills shall have sufficient structural support for the operation including total waste received, material processed, compost stored, equipment, and structures to be built on site.

2. The design of the facility shall follow acceptable management practices for composting methods which result in the aerobic, thermophilic decomposition of the solid organic constituents of solid waste to produce a stable, hygienically safe humus-like material.

3. The site for the facility shall meet the following standards:

a. A site located in a flood plain shall not restrict the flow of the 100-year flood;

b. A site shall be maintained and operated in a manner which protects the established water quality standards of the surface waters and ground waters;

c. A 50-foot minimum buffer shall be required between all property lines and compost pad or storage area;

d. A 200-foot minimum buffer shall be required between compost pad or storage area and residences or dwellings;

e. A 200-foot minimum buffer shall be required between streams and rivers and compost pad or storage area;

f. A 100-foot minimum buffer shall be required between all drinking water wells and the active composting area;

g. The bottom elevation of the compost pad and storage areas shall be a minimum of two (2) feet above seasonal high water table as it exists prior to construction of the disposal area. The seasonal high water table shall be determined based on interpretation of the data from a representative number of geotechnical type borings, unless alternate information can be provided to the Department to ensure that a two (2) foot separation from groundwater will be maintained throughout the life of the disposal, i.e. compost, area;

h. A site shall comply with all of the requirements of the local zoning ordinance;

i. Access to the site shall be controlled through the use of fences, gates, berms, natural barriers, or other means;

j. A site shall not be located within any wetlands as delineated and defined specifically as wetlands according to the methodology accepted by the U. S. Army Corps of Engineers and the U. S. Environmental Protection Agency;

k. Alternative buffers for a covered facility shall be approved by the Department on a case by case basis; and,

l. Access to fire equipment and fire fighting services shall be provided.

F. Operation Criteria. The operational requirements of this section apply to all facilities that compost yard trash and land-clearing debris and/or chip untreated wood waste.

1. The facility shall be operated in a manner to control vectors.

2. Only yard trash and land clearing debris waste shall be accepted at the facility.

3. If solid waste other than yard trash or land clearing debris is left at the facility, it shall be separated and stored in a manner that prevents vector problems and shall be properly disposed within seven (7) days of its

receipt.

4. Odors shall be controlled and minimized.

5. Dust shall be controlled and minimized.

6. Waste with a low carbon to nitrogen ratio, e.g., grass clippings, etc. shall be incorporated into piles within forty-eight (48) hours of on-site arrival.

7. Drainage Control Requirements:

a. Storm water shall be diverted from the operational area;

b. Windrows shall be constructed parallel to topographical slopes; and,

c. The site shall be graded to prevent ponding of water in the active composting areas.

8. Surface Water Protection Requirements: An NPDES permit may be required prior to discharge of any storm waters to surface waters.

9. Access and Security Requirements:

a. The site shall be secured by means of gates, chains, berms, fences, or other security measures, to prevent unauthorized entry; and,

b. An all-weather road to the site shall be maintained in good condition;

10. Sign Requirements:

a. Signs shall be posted in conspicuous places which identify the owner, operator, or a contact person and telephone number in case of emergency, and the hours during which the site is open for public use;

b. Traffic signs or markers shall be provided as necessary to promote an orderly traffic pattern to and from the discharge area and to maintain efficient operating conditions; and,

c. Signs shall be posted stating that only yard trash and land-clearing debris can be accepted at the site (except in the event that the site is permitted by the Department for solid waste disposal in addition to being permitted for yard trash and land-clearing debris composting).

11. Safety Requirements:

a. Open burning of solid waste at the composting facility shall be prohibited;

b. Equipment shall be provided to control accidental fires and/or arrangements shall be made with the local fire protection agency to immediately provide fire-fighting services when needed; and,

c. Space shall be provided between piles to allow access for vehicles, including fire equipment.

12. Monitoring and Reporting Requirements:

a. Should the Department confirm environmental and/or health problems associated with the facility, monitoring (including groundwater, surface water, waste components, soil, and/or plant tissue analyses) may be required by the Department to ensure protection of the environment; and,

b. An annual report shall be submitted to the Department and to the respective county or region in which the facility is located by October 15th, which includes the following information:

(1) Sources, type, and an estimate of the total quantity of waste received at the facility for the previous year;

(2) The amount of compost produced;

(3) The amount of compost removed from the facility;

(4) The amount of compost disposed in a landfill; and,

(5) Any changes in names of responsible parties, addresses, telephone numbers, etc., if applicable.

G. Closure and Post-closure Procedures.

1. Financial Assurance. All composting and wood chipping facilities shall fund a financial assurance mechanism for completing final closure prior to accepting yard waste. A final closure cost estimate, based on third party costs to complete closure by disposing of the maximum quantity of material at a facility shall be performed annually and adjusted annually, if necessary. The financial responsibility requirements shall not apply to any local government or region comprised of local governments which owns and operates a municipal solid waste management facility unless and until such time as federal regulations require such local governments and regions to demonstrate financial responsibility for such facilities; and,

2. Closure Procedures. All composting and wood chipping facilities shall be required to close the facility in accordance with the following procedures:

a. At least sixty (60) days prior to closure, provide written notice of intent to close and a proposed closure date to the Department;

b. Upon closing, immediately post closure signs at the facility;

c. Complete removal of compost material and cleaning of the waste handling areas within ten (10) days of closure and request Department inspection and approval of closure; and,

d. Within sixty (60) days of closure, grade land to promote positive drainage and seed with native grasses to prevent erosion.

BOARD OF MINERALS AND ENVIRONMENT
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Permit Number: GPCF 98-05

GENERAL PERMIT FOR YARD WASTE COMPOSTING FACILITIES UNDER THE SOUTH DAKOTA WASTE MANAGEMENT PROGRAM

South Dakota Solid Waste Law, SDCL 34A-6-1.6, authorizes the Board of Minerals and Environment (Board) to adopt rules relating to the issuance, renewal, revocation or suspension of solid waste facility permits. South Dakota Solid Waste Law, SDCL 34A-6-58, authorizes the Secretary of the Department of Environment and Natural Resources (DENR) to recommend that the Board issue general permits for certain categories of solid waste facilities.

This general permit authorizes the construction and operation of a yard waste composting facility within the State of South Dakota, subject to compliance with all conditions set forth in this general permit. If any of the conditions of this general permit are not met, the operator may be required to apply for and obtain an individual solid waste permit as specified in SDCL 34A-6-58 and ARSD 74:27:10:06. In addition, the operator may be subject to civil penalties set forth in SDCL 34A-6-1.31.

Pursuant to SDCL 34A-6-58, this general permit is valid until suspended, revoked or modified by the Board.

This permit shall become effective October 13, 1998.

Signed this 13th day of October, 1998.

_____

Richard C. Sweetman, Chairman
Board of Minerals and Environment

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1.0 GENERAL STATEMENTS OF LAW AND OPERATOR'S RESPONSIBILITIES

1.01 Applicability of General Permit

This general permit is potentially applicable to all operators of yard waste composting facilities that receive less than 5,000 tons of yard waste per year.

The operator may accept for treatment any materials listed in Table 1, in accordance with the specified requirements. The operator shall not accept for disposal or temporary storage any other type of waste. In case of unauthorized disposal refer to Table 2. The operator may accept other waste types similar in characteristics to those listed in Table 1 with prior written approval from DENR.

1.02 Severability

The provisions of this general permit are severable. If any provision of this general permit, or the application of any provision of this general permit to any circumstance, is held invalid, the application of such provisions to other circumstances and the remainder of this general permit, shall not be affected thereby.

1.03 Property Rights

This general permit does not convey any property rights of any sort, nor any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws and ordinances.

1.04 Amendments, Revocation, and Suspension of General Permit

DENR may recommend to the Board that this general permit be amended as provided by ARSD 74:27:10:05. The Board may suspend or revoke this general permit as provided by SDCL 34A-6-58.

1.05 Procedure for Requesting Authorization

To obtain authorization to operate under the terms and conditions of this general permit, the operator must:

Publish a notice of intent in an official newspaper in the county in which the proposed facility will be located. The operator shall submit a request for authorization to DENR and publish a notice of intent at least 20 calendar days before the first anticipated use of the site. The request for authorization shall be made on a form provided by DENR. The public notice shall include:

A) The name, address and phone number of both the landowner and operator of the site;
B) The number of acres comprising the site;
C) The general location of the site;
D) The legal description of the site, including quarter, section, township, range and county; and
E) A description of the compostable wastes to be accepted at the site.

If DENR determines the request for authorization is complete and meets the terms of this general permit, DENR will issue an authorization letter approving the construction and operation of the site. The operator must submit a renewal request for authorization to DENR at least 20 calendar days before the letter of authorization expires.

1.06 Duration of Authorization

Initial authorization to operate under this general permit shall be valid for up to two years from the date of issuance and may be renewed for periods of up to five years.

1.07 Changes to Request for Authorization

The operator must notify DENR at least 20 calendar days prior to implementing any change in the site location, design, or operation that would change the request for authorization initially submitted to DENR. All changes must be approved by DENR prior to implementation.

1.08 Transfers

The general permit authorization may be transferred to a new operator provided:

A. The current operator notifies DENR at least 20 calendar days prior to the proposed transfer date;

B The notification to DENR includes a written agreement between the authorized and new operator containing the date for transfer of permit responsibility, coverage and liability; and

C. The new operator is qualified to operate the facility.

1.09 Individual Permit Required

DENR may require any person requesting coverage under this general permit to apply for and obtain an individual solid waste permit if:

A. The operator is not or cannot operate in compliance with the conditions of this general permit; or

B. The conditions or standards change such that yard waste composting facilities no longer qualify for a general permit.

1.10 Individual Permit Requested

Any operator covered under this general permit may request to be excluded from the coverage by applying for an individual solid waste permit.

1.11 Duty to Comply

The operator must comply with all of the conditions of this general permit. Any permit condition that an operator is not in compliance with constitutes a violation of South Dakota's Solid Waste Laws (SDCL 34A-6) and is grounds for initiation of enforcement actions as described in Section 1.15 of the general permit.

1.12 Proper Maintenance and Operation

The operator shall at all times properly operate and maintain the yard waste composting facility.

1.13 Duty to Provide Information

The operator shall furnish DENR, within 14 calendar days, any information which DENR may request to determine compliance with this general permit.

1.14 Emergency Procedures

The operator must notify DENR, within one business day, of any emergency situation that arises at the facility.

1.15 Penalties for Violations of Permit Conditions

South Dakota Codified Law, (SDCL) 34A-6-1.31, states that any person who violates a solid waste permit condition is subject to a civil penalty of up to $10,000 per day per violation.

1.16 Duty to Provide Access to Facility

The operator shall allow DENR:

A. Access to the site where a regulated activity is located or conducted;
B. To inspect any facilities, equipment, practices or operations regulated or required under this general permit; and
C. To sample or monitor any substances or parameters.

1.17 Administrative Changes Authorized

DENR reserves the right to incorporate administrative changes and/or modifications to this permit. Administrative changes are authorized for the purposes of changing or correcting:

A. Typographical errors;
B. Regulatory references;
C. Titles of organizations or regulatory agencies; and
D. Similar items which do not substantially change the requirements of this general permit.

1.18 Need to Halt or Reduce Activity not a Defense

DENR will not consider that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with this permit, when enforcing the conditions of this permit.

1.19 Duty to Mitigate

The operator shall take all reasonable steps to minimize or prevent any adverse affect on human health or the environment.

2.0 LOCATION AND DESIGN REQUIREMENTS

2.01 Facility Siting

The operator **shall not** locate the site:

A. In a wetland as defined in section ARSD 74:27:07:01;
B. Within 200 feet of surface water, excluding wetlands, as defined by ARSD 74:03:02:01;
C. Within 1,000 feet of any occupied dwellings;
D. Within 1,000 feet of any private or public well which supplies drinking water for human consumption;
E. Where the depth to an aquifer, as defined by ARSD 74:03:16:01(1), is less than 10 feet;
F. Within a 100 year floodplain;
G. Where the primary subsurface material is sand or gravel as determined by the Unified Soil Classification System; or
H. In an area that adversely affects wildlife, recreation, aesthetic value of, or any listed threatened or endangered species.

In addition, the operator shall not locate the active composting area within 100 feet of the property boundaries without written approval of the adjacent property owner(s).

2.02 Storm Water Control

The operator shall construct and maintain dikes or diversion structures around the composting areas to divert run-on and contain run-off from the 25-year, 24-hour storm event. The operator shall adequately compact the dikes to prevent leakage.

2.03 Access Control

The operator shall:

A. Control access to the site through the use of fences and gates; and
B. Post a sign or signs at the entrance to the site stating the operator's name, phone number, type of facility, hours of operation, and a list of accepted compostable wastes.

3.0 OPERATIONAL REQUIREMENTS

3.01 Vector Control

The operator shall prevent or control on-site populations of disease vectors by using techniques appropriate for the protection of human health and for preventing degradation of the environment.

3.02 Routine Inspection Requirements

The operator shall inspect the facility at least weekly to prevent and/or detect the disposal of unauthorized wastes, and shall promptly remove and dispose of any unauthorized waste at a properly permitted facility.

3.03 Waste Handling Requirements

The operator shall only accept yard waste listed in Table 1. If unauthorized materials are detected at the site, the operator shall follow the handling procedures stated in Table 2.

3.04 Beneficial Reuse Allowed

Compost that is offered for sale or service must be registered with the South Dakota Department of Agriculture. Contact the Department of Agriculture at 773-3724 for information on registration of compost material.

4.0 CLOSURE REQUIREMENTS

4.01 Final Closure Requirements

The operator shall notify DENR of the intent to close the site at least 30 calendar days prior to closure. Upon closure of a yard waste composting facility, the operator shall:

A. Record a notation on the deed or other instrument that is normally examined during a property title search that the site has been used as a yard waste composting facility;
B. Incorporate the contours of the closed site into the contours of the surrounding area;
C. Grade the site to prevent ponding of water;
D. Seed and revegetate the site in accordance with Natural Resources Conservation Service recommendations.
E. Post a sign stating that the facility is closed; and
F. Inspect the closed facility periodically for one year to detect unauthorized use.

5.0 RECORDKEEPING AND REPORTING REQUIREMENTS

5.01 Required Records

The operator must maintain the following records, at a minimum:

A. Sources, types, and estimated amounts of yard waste accepted annually; and
B. Copies of the operator's request for authorization and letter of authorization received from DENR.

NOTE: If no scale is available then use this calculation to estimate the annual tonnage. Five cubic yards of leaves and grass clippings equals approximately one ton. 0.1 ton X population served yields the annual estimated tonnage of yard waste compost.

5.02 Maintenance of Records

The operator shall maintain all records and data required by the terms and conditions of this general permit for a period of one year following the closure of the site.

6.0 FINANCIAL ASSURANCE

6.01 Financial Assurance Required

DENR may require the operator of a yard waste composting facility to provide financial assurance to ensure the availability of funds for required closure and postclosure activities and/or for environmental remediation, if:

A. The operator of the site accepts more than 5,000 tons per year at the facility; or
B. The operator violates terms and conditions of this permit.

Any financial assurance required will comply with SDCL 34A-6-1.11 and SDCL 34A-6-1.12.

Yard Waste Composting Facility
Table 1 -- Authorized Wastes

Under South Dakota law, local ordinances may further restrict some of the items listed below. Some facilities may have restrictions or may choose not to accept some of the materials listed.

Type of Waste	Handling Procedures / Requirements
Yard Waste -- Leaves, grass clippings and similar vegetation	These wastes must be composted by: 1) placing the wastes in piles or windrows; 2) aerating the piles or windrows as necessary to control odor; and 3) maintaining moisture levels in the piles or windrows to promote decomposition and to prevent windblown debris. **Yard waste may not be open burned.** Reuse of compost shall be in compliance with applicable federal, state and local laws.
Municipal Sewage Sludge	This must meet 40 CFR Part 503 requirements. Contact DENR - Surface Water Quality Program

Waste not specifically listed here or approved in writing by DENR must be disposed of at a properly permitted solid waste facility.

Compost that is offered for sale or service must be registered with the SD Department of Agriculture. For information on registration of compost material call 773-3724.

NOTE: Five cubic yards of leaves and grass clippings equals approximately one ton. 0.1 ton X population served yields the annual estimated tonnage of yard waste compost.

Table 2 -- Unauthorized Wastes

The following wastes are not allowed to be accepted at a yard waste composting site. If these substances are detected at the site, proper specific handling procedures and requirements are stated here for operator use.

Type of waste	Handling Procedures / Requirements
Hazardous waste, including conditionally exempt small quantity generator (CESQG) waste	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Pesticide containers	Isolate waste. Waste must be taken to a properly permitted solid waste facility or contact Department of Agriculture for recycling options.
Petroleum contaminated soil	Isolate waste and contact DENR within one business day. Waste must be taken to properly permitted solid waste facility.
Regulated asbestos containing materials	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Lead-acid batteries	Isolate waste. Waste should be taken to a recycler that accepts car batteries.
Putrescible wastes	Isolate waste. Waste must be taken to a properly permitted solid waste facility.
Ash	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Construction and Demolition Debris (non-burnable): Concrete, brick, stonework, asphaltic concrete, concrete block, asphaltic or fiberglass shingles, painted or stained wood, attached insulation, and similar wastes, **excluding** cardboard, plastic, Styrofoam, foam rubber, other packaging material, containerized paints, sealants, adhesives and similar wastes.[1]	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Construction and Demolition (C&D) Debris (burnable): Scrap lumber, untreated wood, trees and tree branches	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Treated wood [2]	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Miscellaneous wastes: Furniture, mattresses and similar wastes	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
White Goods: Refrigerators, washers, dryers, freezers, stoves, water heaters and other recyclable scrap metals, excluding fuel tanks.	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.
Scrap tires	Isolate waste and contact DENR within one business day. Waste must be taken to a properly permitted solid waste facility.

1. Cardboard, plastic, Styrofoam, foam rubber, packaging materials, containerized paints, sealants, and adhesives may not be accepted at a restricted use site. These wastes must go to a municipal solid waste landfill.
2. Wood treated with copper chromium arsenate (also known as CCA or 'green treated'), pentachlorophenol (PCP or 'brown treated') wood must go to a permitted municipal solid waste landfill.

~~convenience center, shall include the following information as part of the Solid Waste Region's annual report (which is submitted to the Division):~~

~~1. The number of receptacles in the County;~~

~~2. The location of all receptacles;~~

~~3. Collection times for such receptacles; and~~

~~4. Operation procedures and security measures adopted and enforced to maintain and service the receptacles and to ensure the protection of public health and safety. Such information in this part must be in the form of a narrative manual and meet the minimum requirements in subparagraph (b).~~

~~(b) Minimum operation and security requirements shall be as follows:~~

~~1. All containers must be emptied at a minimum of once every 7 days, except the commissioner may provide an extension of time for severe weather or other emergency conditions.~~

~~2. Litter and / or solid waste outside the receptacles must be controlled. Such wastes must be removed at a minimum frequency of at least once every 7 days.~~

~~3. Receptacles must be maintained and managed in a manner to minimize disease vectors.~~

~~4. Receptacles must be located on an all weather surface (such as gravel).~~

~~(c) Per TCA 68-211-851, as amended, counties which did not have receptacles in place as of January 1, 1996 or which subsequent to such date discontinues use of any receptacle authorized in this paragraph, shall be prohibited from installing or maintaining additional receptacles.~~

~~***Authority:*** *T.C.A. §§4-5-201, et seq., 68-203-103(b)(3), 68-211-102(a), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-105(b), 68-211-851(a), and 68-211-853.* ~~***Administrative History:*** *Original rule filed June 21, 1993; effective August 5, 1993. Amendment filed December 8, 1993; effective February 27, 1994. Amendment filed~~ *November 17, 1995; effective January 31, 1996. Amendment filed April 22, 1997; effective July 6, 1997. Amendment filed May 7, 1997; effective July 21, 1997. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed May 23, 2006; effective August 6, 2006.*

1200-1-7-.11 REQUIREMENTS FOR COMPOST AND COMPOSTING FACILITIES.

(1) General

(a) Purpose - The purpose of this rule is to establish procedures, documentation, and other requirements which must be met in order for a person to operate a composting facility or offer for sale compost in Tennessee.

(b) Scope/Applicability

1. The requirements of this rule apply as specified to operators of composting facilities in Tennessee. Except as specifically provided elsewhere in these rules, no facility may compost solid waste without a permit as provided in rule 1200-1-7-.02(2). Composting facilities, subject to a full permit on the effective date of

this rule, must submit a part I and part II permit application to describe how it will comply with this rule. The application must be filed within 180 days of the effective date of this rule and implemented upon approval. The Division will not charge an application fee, nor require public notice of the application for facilities which already have permit-by-rule for composting.

2. Compost produced from the solid waste classification criteria outside the State of Tennessee, which is used or sold for use within the state, shall comply with rule 1200-1-7-.11(4) subparagraphs (a) classification criteria; (b) labeling requirements; and (c) testing.

3. Composting facilities that process domestic sludge as a feedstock shall also comply with all other applicable federal or state laws regarding sludge management.

4. The following facilities or activities are not subject to the requirement to have a permit.

   (i) Backyard composting and the resulting compost;

   (ii) Normal farming operations. For the purpose of this rule, composting of only landscaping/land clearing waste, hereafter referred to as landscaping waste, or manure by persons on their own property for their own use on that property as part of agronomic or horticultural operations will be considered normal farming operations;

5. A composting facility processing up to 10,000 cubic yards per year of only landscaping waste and manure may receive a permit pursuant to rule 1200-1-7-.02(1)(c) Permits by Rule, for Solid Waste Processing.

6. A composting facility processing only landscaping waste may receive a permit pursuant to rule 1200-1-7-.02(1)(c) Permits by Rule, for Solid Waste Processing.

7. A processing facility composting sewage sludge that is one acre or less in size may apply for a permit by rule pursuant to rule 1200-1-7-.02(1)(c).

(2) General Facility Standards - Unless specifically noted otherwise, the standards of this paragraph shall apply to all compost facilities subject to a permit as provided at rule 1200-1-7-.02(2).

(a) Performance Standards - The facility must be located, designed, constructed, and maintained, and closed in such a manner as to minimize to the extent practicable:

1. The propagation, harborage, or attraction of birds, flies, rodents, or other vectors;

2. The potential for releases of solid waste, solid waste constituents, or other potentially harmful material to the environment except in a manner authorized by state law;

3. The exposure of the public to potential health and safety hazards through uncontrolled or unauthorized public access;

4. The presence of odors that constitute a nuisance.

(Rule 1200-1-7-.11, continued)

(b) Control of Access and Use

1. The facility shall have a natural or an artificial barrier which completely surrounds the active portion of the facility and must have a means to control entry, at all times, through the gate or other entrances to the active portion of the facility.

2. If open to the public, the facility shall have clearly visible and legible signs at the points of public access which indicate the hours of operation, the types of waste materials that either will or will not be accepted, emergency telephone numbers, schedules of charges (if applicable), and any other necessary information.

3. The facility shall have paved (paved includes compacted stone) access roads and parking areas. Traffic control signs shall be provided as necessary.

4. The facility shall have trained personnel present and on duty during operating hours to assure compliance with operational requirements and to prevent entry of unauthorized wastes.

5. There shall be no scavenging.

6. Scales for weighing all waste received at the facility shall be provided, unless the Commissioner approves an alternative method of measurement.

(c) Leachate Collection

1. The facility shall have a leachate collection and removal system that is designed, constructed, and maintained such that all leachate from the waste receiving, storage, processing, and curing areas is collected. All washdown, stormwater or other water coming into contact with solid waste or compost must be collected and properly managed.

2. Leachate shall be reused in the process or otherwise properly managed as per all applicable laws and rules.

(d) Waste Management

1. The type [defined at rule 1200-1-7-.11(4)(a)1] and source of solid waste to be received shall be determined and categorized for review. This listing shall be updated as appropriate.

2. The type and source of any additives to be used in the production of compost shall be specified.

3. The facility's waste inspection procedures shall be established to prevent the receipt of unauthorized or unacceptable waste. Inspection of all loads received is required.

4. Contingency operations shall identify proper management of all waste in the event of equipment failure, facility disaster, or receipt of unauthorized material such as oil, hazardous waste, etc.

5. The surfaces for all waste receiving areas, storage areas, and processing and curing areas shall be paved to minimize release of any contaminants to the groundwater. The paved areas shall be capable of withstanding wear and tear

during normal operations. The standards for surfaces for facilities shall be as follows:

(i) Facilities receiving waste types categorized as solid waste or landscaping waste and manure shall utilize a surface of asphalt or concrete or other surface approved by the Commissioner.

(ii) Facilities receiving only the landscape waste type may utilize a surface of compacted gravel or the surfaces authorized in subpart (i) above.

6. Landscaping waste shall be stored separately from other solid waste at the facility. Solid waste shall be stored in a manner to prevent vectors. Unusable material must be identified and removed within 48 hours.

7. Recovered materials removed from the solid waste stream shall be stored in a manner that prevents vector problems and shall be sent to a vendor or processor at least every thirty (30) days.

(e) Fire Safety

1. No open burning is allowed.

2. The facility shall have, on-site and continuously available, properly maintained fire suppression equipment capable of controlling accidental fires. If available, local fire fighting service shall be acquired.

(f) Litter Control - Fencing and/or other control shall be provided to confine loose waste to the area designated for storage or processing: Accidental dispersal from the designated areas shall be recovered daily.

(g) Personnel Facilities - There shall be provided:

1. A building or other shelter which is accessible to facility personnel which has adequate heating and light.

2. Potable water for washing and drinking.

3. Toilet facilities.

(h) Communication - The facility shall have available during operating hours equipment capable of summoning emergency assistance as needed.

(i) Operating Equipment - The facility shall have on-site operational and monitoring equipment capable of maintaining the waste processing as designed.

(j) Dust Control - The operator must take dust control measures as necessary to prevent dust from creating a nuisance or safety hazard to adjacent landowners or to persons engaged in supervising, operating, and using the site. The use of any dust suppressants (other than water) must be approved in writing beforehand by the Department.

(k) Run-on/Run-off Control

(Rule 1200-1-7-.11, continued)

1. The operator shall design, construct, and maintain a run-on control system capable of preventing the 25 year, 24 hour storm from flowing onto all operational and storage areas.

2. The operator shall design, construct, and maintain a run-off management system capable of minimizing impact to adjoining properties during the 25 year, 24 hour storm.

3. Run-off shall be managed separately from leachate unless otherwise approved by the Commissioner.

(l) Endangered Species - Facilities shall be located, designed, constructed, operated, maintained, closed, and cared for during the post-closure care period in a manner that does not:

1. Cause or contribute to the taking of any endangered or threatened species of plants, fish, or wildlife; or

2. Result in the destruction or adverse modification of the critical habitat of endangered or threatened species.

(m) Location in Floodplains- Facilities shall not be located in a 100-year floodplain, unless the demonstration is made to the Commissioner as required at rule 1200-1-7-.04(2)(n).

(n) Wetlands - The facility shall not be located in a wetland unless the demonstration is made to the Commissioner as required at rule 1200-1-7-.04(2)(p).

(o) Closure - The facility must meet closure requirements described herein. The facility is finally closed by removal of all solid wastes and solid waste residues for proper disposal. The operator must notify the Commissioner in writing of his completion of closure of the facility. Such notification must include a certification by the operator that the facility has been closed by removal of all the solid waste and residues. Within 21 days of the receipt of such notice the Commissioner shall inspect the facility to verify that closure has been completed. Within 10 days of such verification, the Commissioner shall approve the closure in writing to the operator. Closure shall not be considered final and complete until such approval has been made.

(p) The owner/operator of a compost facility permitted pursuant to 1200-1-7-.02(2) shall file with the Commissioner a performance bond or equivalent cash or securities, payable to the State of Tennessee. Such financial assurance is intended to ensure that adequate financial resources are available to the Commissioner to insure 30 days operation and proper closure of the facility. The types of financial assurance instruments that are acceptable are those which are specified in rule 1200-1-7-.03(3)(d). Such financial assurance shall meet the criteria set forth in T.C.A. §68-211-116 and at rule 1200-1-7-.03(3)(b).

(q) Compost from facilities subject to a full permit in this rule must meet the appropriate criteria for “compost disinfection” as defined in definitions at rule 1200-1-7-.01.

(3) Buffer Zone Standards for Siting New Facilities - All waste management areas shall be located so as to conform to the distance standards at rule 1200-1-7-.04(3)(a).

(4) Classification of Compost - Compost shall be classified based on type of waste processed, product maturity, amount of foreign material, and the concentration of heavy metals.

(Rule 1200-1-7-.11, continued)

(a) Classification Criteria

1. Type of waste processed

(i) Landscaping waste only

(ii) Landscaping waste and manure

(iii) Solid waste (may include sewage, sludge, and other solid waste)

2. Product maturity

(i) Mature compost is a highly stabilized compost material that has been exposed to prolonged periods of decomposition. It will not reheat upon standing to greater than 20^{o} C above ambient temperature. The material should be brown to black in color. This level of maturity is indicated by a reduction of organic matter of greater than 60 percent.

(ii) Semi-mature compost is compost material that is at the mesophilic stage. It will reheat upon standing to greater than 20^{o} C above ambient temperature. The material should be light to dark brown in color. This level of maturity is indicated by a reduction of organic matter of greater than 40 percent but less than or equal to 60 percent.

(iii) Fresh compost is compostable material that has been through the thermophilic stage and has undergone partial decomposition. The material will reheat upon standing to greater than 20^{o} C above ambient temperature. It has beneficial use, but proper care is needed as further decomposition and stabilization will occur. This level of maturity is indicated by a reduction of organic matter of greater than 20 percent but less than or equal to 40 percent.

3. Compost shall be classified as either Type A Compost or Type B Compost according to its metal content characterization as shown in this part. Metal concentrations in finished compost shall not exceed the concentrations shown in Type B Compost below:

METAL CONSTITUENT	TYPE A COMPOST TOTAL METAL CONCENTRATION (PPM)	TYPE B COMPOST TOTAL METAL CONCENTRATION (PPM)
Arsenic	10	16
Cadmium	3	39
Chromium	210	1200
Cobalt	200	200
Copper	300	1500
Lead	100	250
Mercury	1.0	17
Molybdenum	10	18
Nickel	50	420
Selenium	3.0	36
Zinc	500	2800

(Rule 1200-1-7-.11, continued)

4. Foreign matter shall be expressed as a percent as provided at part 4 of subparagraph (c).

(b) Labeling Requirements.

Compost shall be labeled in accordance with the classification criteria of subparagraph (a) above. This label shall be prominently displayed on individually packaged material, or a written statement providing the classification criteria and certifying its accuracy will be deemed sufficient on all bulk sales. This label shall be of sufficient contrast to the packaging to be easily visible and shall be a bordered label with dimensions of three inches by five inches. The lettering shall be one quarter inch block characters.

(c) Testing

1. Compost shall be sampled and analyzed as follows:

(i) A composite sample of the compost produced at each composting facility shall be analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first, for:

Parameter	Unit	Method
Moisture	%	EPA 160.3
Total Nitrogen	% by dry weight	EPA 351 and 353
Total Phosphorus	% by dry weight	EPA 365
Total Potassium	% by dry weight	EPA 3050/7610
Reduction in Organic Matter	%	EPA 160.4
PH	Standard Units	EPA 9045

(ii) In addition to (i) of this part all compost utilizing the solid waste classification at rule 1200-1-7-.11(4)(a)1(iii), shall be analyzed at intervals of every 20,000 tons of compost produced or every three months, whichever comes first, for:

Parameter	Unit	Method
All metals of Rule 1200-1-7-11(4)(a)3.	mg/kg of dry Weight	SW-846 Method
Foreign Matter	%	See 4 Below **
Fecal Coliform	most probable number	SM 9221***
Volatile Residue	mg/l	See 5 Below **
PCB	part per million*	SW-846 Method

* (detection above 1 ppm, the Commissioner shall be immediately notified by the operator and the source identified)

** Methods for Chemical Analysis of Water and Wastes (EPA-600/4-79-020), 1983.

*** Standard Methods For the Examination of Waste and Wastewater, 21st Edition, 2005.

2. The Department may decrease or increase the parameters to be analyzed for or the frequency of analysis based on monitoring data, changes in the waste stream or processing, or the potential presence of toxic substances. Sample collection, preservation, and analysis shall assure valid and representative results pursuant to a Department-approved quality assurance plan.

(Rule 1200-1-7-.11, continued)

3. Composite samples shall consist of at least three individual samples of equal volume taken from separate areas along the side of the pile of the compost produced. Each sampling point shall be at a depth of two feet into the pile and four feet from the outside edge of the pile.

4. Foreign matter content shall be determined by passing a dried, weighed sample of the compost product through a one-quarter inch or six millimeter screen. EPA Method 160.3 shall be used to dry the sample. The material remaining on the screen shall be visually inspected, and the foreign matter that can be clearly identified shall be separated and weighed. The weight of the separated foreign matter divided by the weight of the total sample multiplied by 100 shall be the percent dry weight of the foreign matter content.

5. The organic matter reduction is determined by measuring the volatile solids content using EPA method 160.4.

(d) Reporting - Facility owner or operators shall record and maintain at the facility for three years the following information regarding their activities for each month of operation of the facility. Records shall be available for inspection by Department personnel during normal business hours and shall be sent to the Department upon request to include:

1. Analytical results on composting testing;

2. The quantity, type [described at rule 1200-1-7-.11(4)(a)1] and source of waste received;

3. The quantity and type of waste [described at rule 1200-1-7-.11(4)(a)1] processed into compost;

4. The quantity and type of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] produced; and

5. The quantity and type of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] removed for use or for disposal, and the market or permitted disposal facility. The operator must identify the market for compost removed for use. The operator must identify the permitted disposal facility for compost removed for disposal.

(e) Annual Report

Owners and operators of facilities producing compost made from solid waste shall submit to the Department an annual report by March 1 of each year. The report and shall include at a minimum:

1. The facility name, address and permit number;

2. The reporting year with all quantities expressed in tons (sludge expressed in dry weight);

3. The total quantity and type of waste [described at rule 1200-1-7-.11(4)(a)1] received at the facility during the year covered by the report;

4. The total quantity and type of waste [described at rule 1200-1-7-.11(4)(a)1] processed at the compost facility;

(Rule 1200-1-7-.11, continued)

5. The total quantity and types of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] produced during the year covered by the report; and

6. The total quantity and types of compost Type A or Type B [described at rule 1200-1-7-.11(4)(a)3] removed for use or for disposal, and the market(s) or permitted disposal facility(s). The operator must identify the market for compost removed for use. The operator must identify the permitted disposal facility for compost removed for disposal.

(5) Design and Construction Plans

(a) Master Plan **-**A master plan shall be provided that is drawn at a scale of not less than 1" = 400' with not more than 20 foot contour interval and which clearly depicts:

1. The boundary of the proposed facility;

2. The existing drainage pattern of all site runoff;

3. Runoff monitoring stations;

4. Primary access roads;

5. Wells within one quarter mile of the site boundary;

6. The location of all 100-year floodplain boundaries; and

7. All residences within one quarter mile of the site boundary (If in an urban area residential properties may be delineated).

(b) Design Plans- Design plans shall be provided that are drawn at a suitable scale of not less than 1" = 50 feet and with contour intervals of not greater than five feet, which clearly depicts:

1. All structures;

2. Proposed waste processing areas;

3. Proposed waste storage areas;

4. All drainage appurtenances that control run-on/run-off and the direction of flow;

5. The location of all existing and proposed utilities and roads (defining surface material); and

6. The location of all leachate collection/treatment structures, piping, storage appurtenances, and any other associated unit.

(c) Narrative Description of the Facility and Operation - A narrative description of the facility and operation shall be provided that defines all procedures and activities pertinent to the design and operation of the facility. This narrative shall include, but not necessarily be limited to:

1. A description of how the facility will achieve the compliance of all standards defined in paragraphs (2), (3), (4), and (6) of this rule;

2. A description of the waste handling and processing equipment to be used;

3. A description of the management of run-on/runoff with design calculations of all appurtenances;

4. A description of the management of the leachate system and the disposition of the leachate;

5. A description of the odor control measures; and

6. A description of the procedures for the final closure of the facility.

(6) Technological Standards / Best Available Technology

In order to assure that the public health and environment of the State of Tennessee is provided the optimum protection from unwarranted releases of metals, as restricted by rule 1200-1-7-.11(4) (a) 3, these rules shall require that any facility permit incorporate the best available technology. This requirement is restricted to facility processing standards and shall not be interpreted to include source management of the waste stream. The applicant shall submit to the Department documentation of the most technologically advanced system that is currently in operation and is compatible with the proposed design criteria. Representative product analysis shall be provided in accordance with the testing requirements of rule 1200-1-7-.11(4)(c) "Testing" of this rule.

Authority: *T.C.A. §§68-203-103(b)(3), 68-211-102(a), 68-211-105(b) and (c), 68-211-106(a)(1), 68-211-107(a), 68-211-111(d)(1), 68-211-111(d)(2), 68-211-116, 68-211-851(a), 68-211-852, 68-211-853, and 68-211-861.* ***Administrative History:*** *Original rule filed October 8, 1998; effective December 28, 1998. Amendment filed April 17, 2000; effective July 1, 2000. Amendment filed July 27, 2001; effective October 10, 2001. Amendment filed September 29, 2003; effective December 13, 2003. Amendment filed May 23, 2006; effective August 6, 2006.*

~~**1200-1-7-.12 REQUIREMENTS FOR CERTIFICATION OF OPERATORS, ATTENDANTS, AND RESPONSIBLE PERSONS FOR SOLID WASTE LANDFILLS.**~~

~~(1) General~~

~~(a) Purpose~~

~~The purpose of this Rule is to establish procedures and requirements for training and certification of operators, attendants, and other responsible persons for municipal solid waste landfills. This rule will identify those persons who must receive certification and will impose fees for training and certification.~~

~~(b) Applicability~~

~~The training and certification requirements of this rule apply to operators, attendants, and responsible persons for Class I landfills. One certified operator is required to be on site during the hours of operation. However, a certified operator is not required to be on site during the post closure period.~~

~~(c) Training and Certification for Class I Landfill Personnel~~

~~The Department shall either conduct or approve another person to conduct training for the persons as provided at Rule 1200-1-7-.12(1)(b).~~

SUBCHAPTER A: GENERAL INFORMATION
§§332.1 - 332.8
Effective January 8, 2004

§332.1. Purpose.

The purpose of this chapter is to establish regulations that will divert organic materials from the typical municipal solid waste stream, and promote the beneficial reuse of those materials while maintaining standards for human health and safety and environmental protection.

Adopted November 1, 1995 Effective November 29, 1995

§332.2. Definitions.

The following words and terms, when used in this subchapter, shall have the following meanings unless the context clearly indicates otherwise.

(1) **Agricultural materials** - Litter, manure, bedding, feed material, vegetative material, and dead animal carcasses from agricultural operations.

(2) **Agricultural operations** - Operations involved in the production of agricultural materials.

(3) **Air contaminant** - Particulate matter, radioactive material, dust, fumes, gas, mist, smoke, vapor, or odor or any combination thereof produced by processes other than natural. Water vapor shall not be considered an air contaminant.

(4) **All-weather roads** - A roadway that has been designed to withstand the maximum load imposed by vehicles entering and exiting the facility during all types of weather conditions.

(5) **Anaerobic composting** - The controlled biological decomposition of organic materials through microbial activity which occurs in the absence of free oxygen. Anaerobic composting does not include the stockpiling of organic materials.

(6) **Backyard operations** - The composting, land application and mulching of non-industrial organic material, such as grass clippings, leaves, brush, clean wood material or vegetative food material, generated by a homeowner, tenant of a single or multi-family residential or apartment complex, or a commercial or institutional complex where the composting, land application or mulching occurs on the dwelling property and the final product is utilized on the same property. Backyard operations includes neighborhood composting demonstration sites which generate less than 50 cubic yards of final product per year.

(7) **Batch (or Sampling batch)** - The lot of produced compost represented by one analytical sample (3000 cubic yards or 5000 cubic yards depending on facility type).

(8) **Beneficial reuse** - Any agricultural, horticultural, reclamation, or similar use of compost as a soil amendment, mulch, or component of a medium for plant growth, when used in accordance with generally accepted practice and where applicable is in compliance with the final product standards established by this chapter. Simply offering a product for use does not constitute beneficial reuse. Beneficial reuse does not include placement in a disposal facility, use as daily cover in a disposal facility, or utilization for energy recovery.

(9) **Bulking agent** - An ingredient in a mixture of composting materials included to improve structure and porosity (which improve convective air flow and reduce settling and compaction) and/or to lower moisture content. Bulking agents may include but are not limited to: compost, straw, wood chips, saw dust or shredded brush.

(10) **Clean wood material** - Wood or wood materials, including stumps, roots, or vegetation with intact rootball, sawdust, pallets and manufacturing rejects. Clean wood material does not include wood that has been treated, coated or painted by materials such as, but not limited to, paints, varnishes, wood preservatives, or other chemical products. Clean wood material also does not include demolition material, where the material is contaminated by materials such as but not limited to paint or other chemicals, glass, electrical wiring, metal and sheetrock.

(11) **Commission** - The Texas Natural Resource Conservation Commission and its successors.

(12) **Compost** - The stabilized product of the decomposition process that is used or distributed for use as a soil amendment, artificial top soil, growing medium amendment, or other similar uses.

(13) **Composting or functionally aerobic composting** - The controlled, biological decomposition of organic materials through microbial activity which occurs in the presence of free oxygen. Composting or functionally aerobic composting does not include the stockpiling of organic materials.

(14) **Cured compost (CC)** - A highly stabilized product which results from exposing mature compost to a prolonged period of humification and mineralization.

(15) **Dairy material** - Products which have a Standard of Identity defined in the Code of Federal Regulations, Title 21 §131.

(16) **Distribute** - To sell, offer for sale, expose for sale, consign for sale, barter, exchange, transfer possession or title, or otherwise supply.

(17) **Executive director** - The Executive Director of the Texas Natural Resource Conservation Commission or his duly authorized representative.

(18) **Facility** - All structures, other appurtenances, and improvements within the property boundaries used for receiving and storage of organic materials and processing them into useable final products.

(19) **Feedstock** - Any material used for land application or as a basis for the manufacture of compost, mulch or other useable final product.

(20) **Final product** - Composted material meeting testing requirements of §332.71 of this title (relating to Sampling and Analysis Requirements for Final Product) and awaiting distribution or disposal.

(21) **Fish feedstocks** - Fish, shellfish, or seafood and by-products of these materials whether raw, processed, or cooked. Fish feedstocks does not include oils and/or greases that are derived from these same materials.

(22) **Foreign matter** - Inorganic and organic constituents which are not readily decomposed, including metals, glass, plastics and rubber, but not including sand, dirt, and other similar materials.

(23) **Grab sample** - A single sample collected from one identifiable location.

(24) **Grease** - See the definition of Oil in this section.

(25) **Hours of operation** - Those hours which the facility is open to receive feedstock, incorporate feedstock into the process, retrieve product from the process, and/or ship product.

(26) **Land application** - The spreading of yard trimmings, manure, clean wood material and/or vegetative food materials onto the surface of the land or the incorporation of these materials within 3 feet of the surface.

(27) **Leachate** - Liquid which has come in contact with or percolated through materials being stockpiled, processed, or awaiting removal and which has extracted, dissolved or suspended materials. Leachate also includes condensate from gases resulting from the composting process.

(28) **Manure** - Animal excreta and residual materials that have been used for bedding, sanitary or feeding purposes for such animals.

(29) **Mature compost** - Mature compost is the stabilized product of composting which has achieved the appropriate level of pathogen reduction (ie. PFRP or PSRP) and is beneficial to plant

growth, and meets the requirements of Table 2 of §332.72 of this title (relating to Final Product Grades)

(30) **Maturity** - A measure of the lack of biological activity in freshly aerated materials, resulting from the decomposition of the incoming feedstock during the active composting period.

(31) **Meat feedstocks** - Meat and meat by-products whether raw, processed, or cooked including whole animal carcasses, poultry and eggs. Meat feedstocks does not include oils and/or greases that are derived from these same materials.

(32) **Mixed municipal solid waste** - Garbage, refuse, and other solid waste from residential, commercial, industrial non-hazardous, and community activities which is generated and collected in aggregate.

(33) **Mulch** - Ground, coarse, woody yard trimmings and clean wood material. Mulch is normally used around plants and trees to retain moisture and suppress weed growth, and is intended for use on top of soil or other growing media rather than being incorporated into the soil or growing media. Mulch does not include wood that has been systemically killed using herbicides.

(34) **Municipal sewage sludge** - Solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

(35) **Nuisance** - Nuisances as set forth in the Texas Health and Safety Code, Chapter 341, the Texas Water Code, Chapter 26, and §101.4 of this title (relating to Nuisance).

(36) **Oil** - Any material rendered from vegetative material, dairy material, meat and fish feedstocks, that is soluble in trichlorotrifluoroethane. It includes other material extracted by the solvent from an acidified sample and not volatilized during the test. Oil and greases do not include grease trap waste.

(37) **One hundred-year floodplain** - Any land area which is subject to a 1.0% or greater chance of flooding in any given year from any source.

(38) **Operator** - The person(s) responsible for operating the facility or part of a facility.

(39) **Quality Assurance/Quality Control (QAQC) plan** - A written plan to describe standard operating procedures used to sample, prepare, store, and test final product, and report test

results. The plan outlines quality assurance criteria, as well as quality control procedures, needed to meet the operational specifications of 30 TAC Chapter 332.

(40) **Quality Assurance Program Plan (QAPP)** - A QAQC plan prepared by the TNRCC that may be substituted for the QAQC plan.

(41) **Paper** - A material made from plant fibers (such as but not limited to wood pulp, rice hulls, and kenaf). The sludge byproduct resulting from the production of paper may be approved as a feedstock pursuant to §332.33(b) of this title (relating to Required Forms, Applications, Reports, and Request to Use the Sludge Byproduct of Paper Production).

(42) **Permit** - A written document issued by the commission that, by its conditions, may authorize the owner or operator to construct, install, modify, or operate a facility or operation in accordance with specific limitations.

(43) **Person** - Any individual, partnership, corporation, association, governmental subdivision, or public or private organization of any character.

(44) **PFRP** - The process to further reduce pathogens as described in 40 Code of Federal Regulations Part 503, Appendix B.

(45) **PSRP** - The process to significantly reduce pathogens as described in 40 Code of Federal Regulations Part 503, Appendix B.

(46) **Positively-sorted organic material** - Positively-sorted organic material includes materials such as, but not limited to, yard trimmings, clean wood materials, manure, vegetative material, paper, meat and fish feedstocks that are sorted or pulled out as targeted compostable organic materials from mixed municipal solid waste prior to the initiation of processing.

(47) **Processing** - Actions that are taken to land apply feedstocks or convert feedstock materials into finished compost, mulch or a useable final product. Processing does not include the stockpiling of materials.

(48) **Recyclable material** - For purposes of this chapter, a recyclable material is a material that has been recovered or diverted from the solid waste stream for purposes of reuse, recycling, or reclamation, a substantial portion of which is consistently used in the manufacture of products which may otherwise be produced from raw or virgin materials. Recyclable material is not solid waste unless the material is deemed to be hazardous solid waste by the administrator of the United States Environmental Protection Agency, whereupon it shall be regulated accordingly unless it is otherwise exempted in whole or in part from regulation under the federal Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Protection Act. If, however, recyclable materials may become solid waste at such time, if any, as it is abandoned or disposed of rather than recycled, whereupon it will be solid waste with respect only to the party actually abandoning or

disposing of the material.

(49) **Recycling** - A process by which materials that have served their intended use or are scrapped, discarded, used, surplus, or obsolete are collected, separated, or processed and returned to use in the form of raw materials in the production of new products. Recycling includes the composting process if the compost material is put to beneficial reuse as defined in this section.

(50) **Residence** - A single-family or multi-family dwelling.

(51) **Run-off** - Any rainwater, leachate, or other liquid that drains over land from any part of a facility.

(52) **Run-on** - Any rainwater, leachate, or other liquid that drains over land onto any part of a facility.

(53) **Semi-mature compost (SMC)** - Organic matter that has been through the thermophilic stage and achieved the appropriate level of pathogen reduction (ie. PFRP or PSRP). It has undergone partial decomposition but it is not yet stabilized into mature compost. Semi-mature compost shall not be packaged, as uncontrolled microbial transformations will occur.

(54) **Solid waste** - Garbage; rubbish; refuse; sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility; and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, municipal, commercial, mining and agricultural operations from community and institutional activities.

(55) **Source-separated** - Set apart from waste after use or consumption by the user or consumer.

(56) **Source-separated organic material** - Organic materials from residential, commercial, industrial, and other community activities, that at the point of generation have been separated, collected and transported separately from non-organic materials, or transported in the same vehicle as non-organic materials but in separate compartments. Source-separated organic material may include materials such as, but not limited to, yard trimmings, clean wood materials, manure, vegetative material, and paper. Yard trimmings and clean wood material collected with whitegoods, as in brush and bulky item collections, will be considered source-separated organic materials for the purposes of these rules.

(57) **Stockpile** - A collection of materials that is either awaiting processing or removal.

(58) **Unauthorized material** - Material which is not authorized to be processed in a particular type of composting, mulching or land application facility.

(59) **Vegetative material** - Fruit, vegetable or grain material whether raw, processed,

liquid, solid, or cooked. Vegetative material does not include oils and/or greases that are derived from these same materials.

(60) **Vector** - An agent, such as an insect, snake, rodent, bird, or animal capable of mechanically or biologically transferring a pathogen from one organism to another.

(61) **Voucher** - Provides the same information as required on a label to persons receiving compost distributed in bulk.

(62) **Wetlands** - Those areas defined as wetlands in the Texas Water Code, Chapter 26.

(63) **Wet weight** - The weight of the material as used, not a weight that has been adjusted by subtracting the weight of water within the feedstock.

(64) **White goods** - Discarded large household appliances such as refrigerators, stoves, washing machines or dishwashers.

(65) **Yard trimmings** - Leaves, grass clippings, yard and garden debris, and brush, including clean woody vegetative material not greater than six inches in diameter, that results from landscaping maintenance and land-clearing operations. Yard trimmings does not include stumps, roots, or shrubs with intact root balls.

Adopted November 1, 1995 Effective November 29, 1995

§332.3. Applicability.

(a) Permit required. The following compost operations are subject to the general requirements found in §332.4 of this title (relating to General Requirements), and the requirements set forth in Subchapters D - G of this chapter (relating to Operations Requiring a Permit; Source-Separated Recycling; Household Hazardous Waste Collection; and End-Product Standards), and the air quality requirements in §332.8 of this title (relating to Air Quality Requirements). These operations are required to obtain a permit from the commission under Chapters 305 and 281 of this title (relating to Consolidated Permits; and Applications Processing):

(1) operations that compost mixed municipal solid waste;

(2) operations that add any amount of mixed municipal solid waste as a feedstock in the composting process; and

(3) operations that commercially compost grease trap waste on or after September 1, 2003. Grease trap waste is material collected in and from an interceptor in the sanitary sewer service line of a commercial, institutional, or industrial food service or processing establishment, including the

solids resulting from de-watering processes.

(A) All proposed operations that compost any amount of grease trap waste must apply for a permit and must have a permit prior to operating.

(B) Existing facilities that are composting grease trap waste under a current registration can continue to operate as authorized by that registration if:

(i) the person holding the registration submits an application for a permit under Subchapter D of this chapter not later than the 30th day after receiving notice from the commission of the requirement to submit an application under Texas Health and Safety Code, §361.428(d); and

(ii) the commission declares the application administratively complete on or before June 1, 2004.

(b) Registration required. The following compost operations are subject to the requirements found in §332.4 of this title, the requirements set forth in Subchapters C and G of this chapter (relating to Operations Requiring a Registration; and End-Product Standards), and the air quality requirements in §332.8 of this title:

(1) operations that compost municipal sewage sludge, except those facilities that compost municipal sewage sludge with mixed municipal solid waste;

(2) operations that compost positively-sorted organic materials from the municipal solid waste stream;

(3) operations that compost source-separated organic materials not exempted under subsection (d) of this section;

(4) operations that compost disposable diapers or paper products soiled by human excreta;

(5) operations that compost the sludge byproduct generated from the production of paper if the executive director determines that the feedstock is appropriate under §332.33 of this title (relating to Required Forms, Applications, Reports, and Request to Use the Sludge Byproduct of Paper Production); and

(6) operations that incorporate any of the materials set forth in paragraphs (1) - (5) of this subsection with source-separated yard trimmings, clean wood material, vegetative material, paper, manure, meat, fish, dairy, oil, grease materials, or dead animal carcasses.

(c) Operations requiring notification. The following operations are subject to all requirements

set forth in Subchapter B of this chapter (relating to Operations Requiring a Notification), the general requirements found in §332.4 of this title, and the air quality requirements in §332.8 of this title:

(1) operations that compost any source-separated meat, fish, dead animal carcasses, oils, greases, or dairy materials; and

(2) operations that incorporate any of the materials set forth in paragraph (1) of this subsection with source-separated yard trimmings, clean wood material, vegetative material, paper, or manure.

(d) Operations exempt from facility notification, registration, and permit requirements. The following operations are subject to the general requirements found in §332.4 of this title, the air quality requirements in §332.8 of this title, and are exempt from notification, registration, and permit requirements found in Subchapters B - D of this chapter. Operations under paragraphs (1) and (3) of this subsection are subject to the requirements of an exempt recycling facility under §328.4 and §328.5 of this title (relating to Limitations on Storage of Recyclable Materials; and Reporting and Recordkeeping Requirements):

(1) operations that compost only materials listed in subparagraphs (A) and (B) of this paragraph:

(A) source-separated yard trimmings, clean wood material, vegetative material, paper, and manure;

(B) source-separated industrial materials listed in §332.4(10) of this title excluding those items listed in §332.4(10)(A), (F) - (H), and (J) of this title;

(2) agricultural operations that generate and compost agricultural materials on-site;

(3) mulching operations;

(4) land application of yard trimmings, clean wood materials, vegetative materials, and manure at rates below or equal to agronomic rates as determined by the Texas Agricultural Extension Service;

(5) application of paper that is applied to land for use as an erosion control or a soil amendment; and

(6) on-site composting of industrial solid waste at a facility that is in compliance with §335.2 of this title (relating to Permit Required) and §335.6 of this title (relating to Notification Requirements).

Adopted December 17, 2003 Effective January 8, 2004

§332.4. General Requirements.

All composting facilities and backyard operations shall comply with all of the following general requirements. Violations of these requirements are subject to enforcement by the commission and may result in the assessment of civil or administrative penalties pursuant to Texas Water Code, Chapter 7 (relating to Enforcement).

(1) Compliance with Texas Water Code. The activities that are subject to this chapter shall be conducted in a manner that prevents the discharge of material to or the pollution of surface water or groundwater in accordance with the provisions of the Texas Water Code, Chapter 26 (relating to Water Quality Control).

(2) Nuisance conditions. The composting, mulching, and land application of material shall be conducted in a sanitary manner that shall prevent the creation of nuisance conditions as defined in §330.2 of this title (relating to Definitions) and as prohibited by the Texas Health and Safety Code, Chapters 341 and 382 (relating to Minimum Standards of Sanitation and Health Protection Measures; and Clean Air Act), the Texas Water Code, Chapter 26 (relating to Water Quality Control), §101.4 of this title (relating to Nuisance), and any other applicable regulations or statutes.

(3) Discharge to surface water or groundwater. The discharge of material to or the pollution of surface water or groundwater as a result of the beneficial use or reuse and recycling of material is prohibited.

(4) Compliance with federal laws. Facility operations shall be conducted in accordance with all applicable federal laws and regulations.

(5) Compliance with state laws. Facility operations shall be conducted in accordance with all applicable laws and regulations of the State of Texas.

(6) Facility operations. Facility operations shall not be conducted in a manner which causes endangerment of human health and welfare, or the environment.

(7) Operations on a municipal solid waste landfill unit. No composting activities shall be conducted within the permitted boundaries of a municipal solid waste landfill without prior approval by the executive director as required by §305.70 of this title (relating to Municipal Solid Waste Permit and Registration Modifications).

(8) Operational requirement. Operations shall be conducted in such a manner to ensure that no unauthorized or prohibited materials are processed at the facility. All unauthorized or prohibited materials received by the facility shall be disposed of at an authorized facility in a timely manner.

(9) Leachate. Leachate from landfills and mixed municipal solid waste composting

operations shall not be used on any composting process, except mixed municipal solid waste composting, and shall not be added after the designation of an end-product grade unless the product is reanalyzed to determine end-product quality.

(10) Nonhazardous industrial solid waste. This chapter applies to the composting, mulching, and land application of only the following nonhazardous industrial solid waste when the composting occurs on property that does not qualify for the exemption from the requirement of an industrial solid waste permit pursuant to §335.2(d) of this title (relating to Permit Required):

(A) dead animal carcasses;

(B) clean wood material;

(C) vegetative material;

(D) paper;

(E) manure (including paunch manure);

(F) meat feedstocks;

(G) fish feedstocks;

(H) dairy material feedstocks;

(I) yard trimmings; and

(J) oils and greases.

(11) Industrial and hazardous waste. Any of the materials listed in paragraph (10) of this section that are not managed in accordance with the requirements of this chapter, all hazardous wastes, and any nonhazardous industrial solid wastes not listed in paragraph (10) of this section shall be managed in accordance with Chapter 335 of this title (relating to Industrial Solid Waste and Municipal Hazardous Waste).

(12) Chemicals of concern. The operator of a compost facility shall address the release of a chemical of concern from a compost facility to any environmental media under the requirements of Chapter 350 of this title (relating to Texas Risk Reduction Program) to perform the corrective action.

Adopted August 21, 2002 Effective September 12, 2002

§332.5. Variances.

(a) In specific cases the executive director may approve a variance from the requirements of this chapter if the variance is not contrary to the public health and safety and, due to special conditions, a literal enforcement of this chapter would result in unnecessary hardship, and so that the spirit of the chapter is observed. A variance may not be approved concerning the procedural requirements of this chapter, including application procedures and the filing of reports, or concerning the provisions of §332.8 of this title (relating to Air Quality Requirements).

(b) A request for a variance must be submitted in writing to the executive director. The request may be made in an application for a registration or permit. Any approval of a variance must be in writing from the executive director.

(c) If the variance is requested for a facility permitted under this Chapter, the commission must approve the variance.

Adopted November 1, 1995 Effective November 29, 1995

§332.6. Compost and Mulch Operations Located at Municipal Solid Waste Facilities.

(a) Facilities that compost or mulch materials considered to be exempt, notification or registered facilities in §332.3 of this title (relating to Applicability) may be located at municipal solid waste permitted facilities. The owner shall prepare and submit a modification request in accordance with the provisions of §305.70 of this title (relating to Municipal Solid Waste Class 1 Modifications) unless the municipal solid waste facility permit authorizes compost or mulch operations. If the municipal solid waste facility permit authorizes compost operations, the compost operation shall be conducted in accordance with the facility permit.

(b) Facilities considered to be permitted facilities in §332.3 of this title (relating to Applicability) may be located at municipal solid waste permitted facilities. The owner shall prepare and submit an application for a major permit amendment in accordance with the provisions of §305.62 of this title (relating to Amendment) and shall submit the information required by §332.47 of this title (relating to Permit Application Preparation) and shall fully comply with the provisions of §332.41 of this title (relating to Definition, Requirements, and Application Processing for a Permit Facility).

Adopted November 1, 1995 Effective November 29, 1995

§332.7. Compost Operations Located at Waste Water Treatment Facilities.

Municipal sewage sludge composting facilities considered to be registered facilities in §332.3 of this title (relating to Applicability) may be located at waste water treatment facilities that have received a water quality permit under the Texas Water Code, Chapter 26. The owner shall prepare and submit a modification to amend the water quality permit in accordance with the provisions of

Chapter 305 of this title (relating to Consolidated Permits). The applicant shall comply with the provisions of §332.4 of this title (relating to General Requirements) and §332.31 of this title (relating to Definition of and Requirements for Registered Facilities) except where those provisions conflict with the provisions of the water quality permit. If the wastewater treatment facility has received a water quality permit under the Texas Water Code, Chapter 26 which authorizes compost operations, the compost operation shall be conducted in accordance with the facility permit.

Adopted November 1, 1995 Effective November 29, 1995

§332.8. Air Quality Requirements.

(a) General requirements.

(1) Any composting or mulching operation which has existing authority under the Texas Clean Air Act does not have to meet the air quality criteria of this subchapter. Under Texas Clean Air Act, §382.051, any new composting or mulching operation which meets all of the applicable requirements of this subchapter is entitled to an air quality standard permit authorization under this subchapter in lieu of the requirement to obtain an air quality permit under Chapter 116 of this title (relating to Control of Air Pollution by Permits for New Construction or Modification).

(2) Those composting or mulching operations which would otherwise be required to obtain air quality authorization under Chapter 116 of this title, which cannot satisfy all of the requirements of this subchapter, shall apply for and obtain air quality authorization under Chapter 116 of this title in addition to any notification, registration, or permit required in this subchapter.

(3) Any composting or mulching operation authorized under this chapter which is a new major source or any modification which constitutes a major modification under nonattainment review or prevention of significant deterioration review as amended by the Federal Clean Air Act amendments of 1990, and regulations promulgation thereunder, is subject to the requirements of Chapter 116 of this title, in addition to any notification, registration, or permit required in this chapter.

(4) Composting facilities that do not wish to comply with the requirements of this section, are required to apply for and obtain air quality authorization under Chapter 116 of this title. Once a person has applied for and obtained air quality authorization under Chapter 116 of this title, the person is exempt from the air quality requirements of this chapter.

(5) No person may concurrently hold an air quality permit issued under Chapter 116 of this title and an air quality standard permit authorized under this chapter for composting or mulching operations at the same site.

(6) Composting or mulching operations which have authorization under this chapter shall comply with the general requirements in §332.4 of this title (relating to General Requirements), and subsections (b), (c), (d), or (e) of this section.

(7) The operator of a composting or mulching operation operating under an air quality standard permit shall maintain on file at all times and make immediately available documentation which shows compliance with this section.

(b) Exempt operations. Composting and mulching operations that are considered exempt operations under §332.3(d) of this title (relating to Applicability), and that meet the following requirements are entitled to an air quality standard permit.

(1) If the total volume of materials to be mulched and/or composted, including in-process and processed materials at any time is greater than 2,000 cubic yards, the setback distance from all property boundaries to the edge of the area receiving, processing, or storing feedstock or finished product must be at least 50 feet.

(2) All permanent in-plant roads and vehicle work areas shall be watered, treated with dust-suppressant chemicals, or paved and cleaned as necessary to achieve maximum control of dust emissions. Vehicular speeds on non-paved roads shall not exceed ten miles per hour.

(3) Except for initial start-up and shut-down, the receiving chamber on all grinders shall be adequately filled prior to commencement of grinding and remain filled during grinding operations to minimize emissions from the receiving chamber or grinding operations shall occur inside an enclosed structure. In addition, all grinders not enclosed inside a building shall be equipped with low-velocity fog nozzles spaced to create a continuous fog curtain or the operator shall have portable watering equipment available during the grinding operation. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(4) All conveyors which off-load materials from grinders at a point which is not enclosed inside a building shall have available a water or mechanical dust suppression system. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(5) If there are any changes to the composting or mulching operation that would reclassify it from an exempt operation to a notification, registration, or permit facility as authorized under §332.3 of this title, the operation shall obtain an air quality standard permit for a notification, registered, or permitted composting operation.

(c) Notification operations. Composting operations required to notify under §332.3(c) of this title which meet the following requirements are entitled to an air quality standard permit.

(1) The setback distance from all property boundaries to the edge of the area receiving, processing, or storing feedstock or finished product must be at least 50 feet.

(2) All permanent in-plant roads and vehicle work areas shall be watered, treated with dust-suppressant chemicals, or paved and cleaned as necessary to achieve maximum control of dust emissions. Vehicular speeds on non-paved roads shall not exceed ten miles per hour.

(3) Prior to receiving any material with a high odor potential such as, but not limited to, dairy material feedstocks, meat, fish, and oil and grease feedstocks, the operator shall insure that there is an adequate volume of bulking material to blend with/cover the material, and shall begin processing the material in a manner that prevents nuisances.

(4) Except for initial start-up and shut-down, the receiving chamber on all grinders shall be adequately filled prior to commencement of grinding and remain filled during grinding operations to minimize emissions from the receiving chamber or grinding operations shall occur inside an enclosed structure. In addition, all grinders not enclosed inside a building shall be equipped with low-velocity fog nozzles spaced to create a continuous fog curtain or the operator shall have portable watering equipment available during the grinding operation. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(5) All conveyors which off-load materials from grinders at a point which is not enclosed inside a building shall have available a water or mechanical dust suppression system. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(6) If there are any changes to the composting or mulching operation that would reclassify it from a notification operation to a registration or permit operation as authorized under §332.3 of this title, the operation shall obtain an air quality standard permit for a registered or permitted composting operation.

(d) Registered operations. Composting operations required to obtain a registration under §332.3(b) of this title that meet the following requirements are entitled to an air quality standard permit.

(1) All permanent in-plant roads and vehicle work areas shall be watered, treated with dust-suppressant chemicals, or paved and cleaned as necessary to achieve maximum control of dust emissions. Vehicular speeds on non-paved roads shall not exceed ten miles per hour.

(2) Prior to receiving any material with a high odor potential such as, but not limited to, dairy material feedstocks, sewage sludge, meat, fish, and oil and grease feedstocks, the operator shall insure that there is an adequate volume of bulking material to blend with or cover the material, and shall begin processing the material in a manner that prevents nuisances.

(3) All material shall be conveyed mechanically, or if conveyed pneumatically, the conveying air shall be vented to the atmosphere through a fabric filter(s) having a maximum filtering velocity of 4.0 ft/min with mechanical cleaning or 7.0 ft/min with air cleaning.

(4) Except for initial start-up and shut-down, the receiving chamber on all grinders shall be adequately filled prior to commencement of grinding and remain filled during grinding operations to minimize emissions from the receiving chamber or grinding operations shall occur inside an enclosed structure. In addition, all grinders not enclosed inside a building shall be equipped with

low-velocity fog nozzles spaced to create a continuous fog curtain or the operator shall have portable watering equipment available during the grinding operation. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(5) All conveyors which off-load materials from grinders at a point which is not enclosed inside a building shall have available a water or mechanical dust suppression system. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(6) If there are any changes to the composting or mulching operation that would reclassify it from a registration operation to a permit operation as authorized under §332.3 of this title, the operation shall obtain an air quality standard permit for a permitted composting operation.

(e) Permit operations. Composting operations required to obtain a permit under §332.3(a) of this title that meet the following requirements are entitled to an air quality standard permit.

(1) All permanent in-plant roads and vehicle work areas shall be watered, treated with dust-suppressant chemicals, or paved and cleaned as necessary to achieve maximum control of dust emissions. Vehicular speeds on non-paved roads shall not exceed ten miles per hour.

(2) Prior to receiving any material with a high odor potential such as, but not limited to, dairy material feedstocks, sewage sludge, meat, fish, oil and grease feedstocks, grease trap waste, and municipal solid waste, the operator shall insure that there is an adequate volume of bulking material to blend with or cover the material, and shall begin processing the material in a manner that prevents nuisances.

(3) All material shall be conveyed mechanically, or if conveyed pneumatically, the conveying air shall be vented to the atmosphere through a fabric filter(s) having a maximum filtering velocity of 4.0 ft/min with mechanical cleaning or 7.0 ft/min with air cleaning.

(4) Except for initial start-up and shut-down, the receiving chamber on all grinders shall be adequately filled prior to commencement of grinding and remain filled during grinding operations to minimize emissions from the receiving chamber or grinding operations shall occur inside an enclosed structure. In addition, all grinders not enclosed inside a building shall be equipped with low-velocity fog nozzles spaced to create a continuous fog curtain or the operator shall have portable watering equipment available during the grinding operation. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(5) All conveyors which off-load materials from grinders at a point which is not enclosed inside a building shall have available a water or mechanical dust suppression system. These controls shall be utilized as necessary for maximum control of dust when stockpiling ground material.

(6) All activities which could result in increased odor emissions such as turning of compost piles shall be conducted in a manner that does not create nuisance conditions or shall only be

conducted inside a building maintained under negative pressure and controlled with a chemical oxidation scrubbing system or bio filter system.

Adopted December 17, 2003 Effective January 8, 2004

SUBCHAPTER B: OPERATIONS REQUIRING A NOTIFICATION
§§332.21 - 332.23
Effective September 12, 2002

§332.21. Operations Requiring Notification.

The following operations are subject to all the requirements of this subchapter, the General Requirements found in §332.4 of this title (relating to General Requirements), and the air quality requirements of §332.8 of this title (relating to Air Quality Requirements).

(1) Operations that compost any source-separated meat, fish, dead animal carcasses, oils, greases, or dairy materials.

(2) Operations that incorporate any of the materials set forth in paragraph (1) of this section with source-separated yard trimmings, clean wood material, vegetative material, paper, or manure.

Adopted November 1, 1995 Effective November 29, 1995

§332.22. Notification.

(a) The operator shall notify the executive director in writing of the existence of the facility 30 days prior to construction by completing TNRCC Compost Form Number 1, "Notice of Intent to Operate a Compost Facility," available from the commission.

(b) The applicant shall include a list of adjacent and landowners and their addresses. Upon receipt of the notification, the chief clerk shall mail notice of the planned facility to the affected landowners. The chief clerk shall also mail notice to other affected landowners as directed by the executive director.

Adopted November 1, 1995 Effective November 29, 1995

§332.23. Operational Requirements.

Operation of the facility shall comply with all of the following operational requirements.

(1) Aerobic composting required. The facility shall utilize functionally aerobic composting methods, although an anaerobic composting phase may be utilized in the early stages of processing, if it is followed by a period of functionally aerobic composting.

(2) Pathogen reduction. One of the following protocols shall be used to reduce pathogens during composting:

(A) Using either the within-vessel composting method or the static aerated pile composting method, the temperature of the composting materials shall be maintained at 55 degrees Centigrade or higher for three days; or

(B) Using the windrow composting method, the temperature of the composting materials shall be maintained at 55 degrees Centigrade or higher for 15 days or longer. During the period when the composting materials are maintained at 55 degrees Centigrade or higher, there shall be a minimum of five turnings of the windrow.

(3) Prohibited substances. Fungicides, herbicides, insecticides or other pesticides that contain constituents listed in 40 CFR Part 261, Appendix VIII-Hazardous Constituents or on the Hazardous Substance List as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) shall not be applied to or incorporated into feedstocks, in-process materials or processed materials.

(4) The operator of a compost facility shall address the release of a chemical of concern from a compost facility to any environmental media under the requirements of Chapter 350 of this title (relating to Texas Risk Reduction Program) to perform the corrective action.

(5) The facility shall be subject to the requirements of §328.4 of this title (relating to Limitations on Storage of Recyclable Materials) and §328.5 of this title (relating to Reporting and Recordkeeping Requirements).

Adopted August 21, 2002 Effective September 12, 2002

SUBCHAPTER C: OPERATIONS REQUIRING A REGISTRATION
§§332.31 - 332.38
Effective November 4, 2004

§332.31. Definition of and Requirements for Registered Facilities.

(a) Definition of registered facilities. The following operations are subject to the requirements of this subchapter:

(1) operations that compost municipal sewage sludge, except those facilities that compost municipal sewage sludge with mixed municipal solid waste;

(2) operations that compost positively-sorted organic materials from the municipal solid waste stream;

(3) operations that compost source-separated organic materials not exempted under §332.3(d) of this title (relating to Applicability);

(4) operations that compost disposable diapers or paper products soiled by human excreta;

(5) operations that compost the sludge byproduct generated from the production of paper if the executive director determines that the feedstock is appropriate under §332.33 of this title (relating to Required Forms, Applications, Reports, and Request To Use the Sludge Byproduct of Paper Production); and

(6) operations that incorporate any of the materials set forth in paragraphs (1) - (5) of this subsection with source-separated yard trimmings, clean wood material, vegetative material, paper, manure, meat, fish, dairy, oil, grease materials, or dead animal carcasses.

(b) Requirements for registered facilities. The operations listed in subsection (a) of this section are subject to the requirements found in §332.4 of this title (relating to General Requirements), the requirements set forth in this subchapter, the requirements set forth in Subchapter G of this chapter (relating to End-Product Standards) and the air quality requirements set forth in §332.8 of this title (relating to Air Quality Requirements).

Adopted December 17, 2003 Effective January 8, 2004

§332.32. Certification by Engineer, Approval by Land Owner, and Inspection.

(a) Certification by registered professional engineer. The operator shall obtain certification by a Texas-Registered Professional Engineer that the facility has been constructed as designed and is in general compliance with the regulations prior to accepting any feedstock at the facility that requires registration and maintaining that certification on-site for inspection by the commission.

(b) Ownership or control of property. The facility shall be located on property owned by the operator or the operator shall establish, using an affidavit form provided by the commission, signed by the owner and notarized, that the owner is aware of and consents to the operation prior to any receipt of feedstock or processing activities. A copy of the affidavit shall be kept on-site at all times.

(c) Inspection of facility. Prior to the initial acceptance of any feedstocks, the facility shall be inspected by the TNRCC to determine compliance with the registration.

Adopted November 1, 1995 Effective November 29, 1995

§332.33. Required Forms, Applications, Reports, and Request To Use the Sludge Byproduct of Paper Production.

(a) The operator of the compost facility shall submit the following:

(1) TNRCC Form Number 2. The operator shall submit TNRCC Form Number 2, "Notice of Intent to Apply for a Compost Facility Registration or Permit," available from the commission; and

(2) Registration application. The registration application described in §332.34 of this title (relating to Registration Application).

(3) Annual report. The operator shall submit annual written reports. These reports shall at a minimum include input and output quantities, a description of the end-product distribution, and all results of any required laboratory testing. A copy of the annual report shall be kept on-site for a period of five years.

(4) Final product testing report. Facilities requiring registration must submit reports on final product testing to the executive director in compliance with §332.71(j)(1) of this title (relating to Sampling and Analysis Requirements for Final Product) on a semiannual basis.

(b) In order to use the sludge byproduct of paper production as a composting feedstock, the operator must first receive permission from the executive director.

(1) The operator shall submit a request to the executive director to use the sludge byproduct as a feedstock. The request may also be submitted with a registration application.

(2) At a minimum, the request shall present all of the following:

(A) identification of the source of the sludge byproduct;

(B) a general description of the process that produces the sludge byproduct including the use of any elemental chorine bleaches used in the process;

(C) analytical results that identify concentrations for polychlorinated dibenzo-p-dioxins (CCDs) and polychlorinated dibenzofurans (CDFs); and

(D) a demonstration that the final product will not be harmful to human health or the environment.

(3) The executive director or his designee shall, after review of the request, determine if he will approve or deny the request.

(4) An operator that receives approval from the executive director to include the sludge byproduct of paper production as a composting feedstock, shall submit a new request to the executive director in accordance with this subsection if a significant change, such as a new source for the feedstock, is planned.

Adopted August 21, 2002 Effective September 12, 2002

§332.34. Registration Application.

Registration applications for composting must include:

(1) Title page. The title page shall show the name of the project, the name of the applicant, and the location by city and county.

(2) Signature of the applicant. The signature of the applicant(s), checked against agency requirements, in accordance with §305.44 of this title (relating to Signatories to Applications).

(3) Affidavit. A notarized affidavit from the applicant(s) verifying land ownership and landowner agreement to the proposed activity.

(4) Table of contents. The table of contents shall list and give the page numbers for the main sections of the application.

(5) Legal authority. The applicant shall provide verification of his/her legal status. Normally, this is a one-page certificate of incorporation issued by the Office of the Secretary of State.

(6) Evidence of competency. The applicant shall provide the following:

(A) the names of the principals and supervisors of the applicant's organization relative to the proposed compost operation; and

(B) the name, location, and permit or registration number of any compost operations or solid waste operations that it is operating or has operated in Texas.

(7) Notice of appointment. The applicant shall provide a notice of appointment identifying the applicant's engineer.

(8) Notice of coordination. The applicant shall provide notice of coordination with all local, state, and federal government officials and agencies.

(9) Legal description. The applicant shall provide the following:

(A) a legal description of the property and the county, book, and page number of the current ownership record from the county deed records; and

(B) a boundary metes and bounds drawing and description of the site signed and sealed by a registered professional land surveyor.

(10) Location description.

(A) Map. The applicant shall clearly show the boundaries of the planned facility on a map that is all or a portion of a county map prepared by Texas Department of Transportation (TxDOT). At a minimum, the map shall be at a scale of 1/2 inch equals one mile.

(B) Geographic coordinates. The applicant shall supply geographic coordinates for the southeast corner of the facility.

(11) Landowner list. The applicant shall include a list of adjacent landowners and their addresses along with an appropriately scaled map locating the property owned by these persons.

(12) Site operating plan. The applicant shall submit a site operating plan. This document is to provide guidance from the design engineer to site management and operating personnel in sufficient detail to enable them to conduct day-to-day operations in a manner consistent with the engineer's design. At a minimum, the site operating plan shall include specific guidance or instructions on all of the following:

(A) the process description, which must be composed of a descriptive narrative along with a process diagram. The process description shall include the items listed in clauses (i) - (vi) of this subparagraph.

(i) Feedstock identification. The applicant shall prepare a list of the materials intended for processing along with the anticipated volume to be processed. This section shall also contain an estimate of the daily quantity of material to be processed at the facility along with a description of the proposed process of screening for unauthorized and prohibited materials.

(ii) Tipping process. Indicate what happens to the feedstock material from the point it enters the gate. Indicate how the material is handled in the tipping area, how long it remains in the tipping area, what equipment is used, how the material is evacuated from the tipping area, at what interval the tipping area is cleaned, and the process used to clean the tipping area.

(iii) Process. Indicate what happens to the material as it leaves the tipping area. Indicate how the material is incorporated into the process and what process or processes

are used until it goes to the post-processing area. The narrative shall include: water addition, processing rates, equipment, energy and mass balance calculations, and process monitoring method.

(iv) Post-processing. Provide a complete narrative on the post-processing process, include post-processing times, identification and segregation of product, storage of product, quality assurance, and quality control.

(v) Product distribution. Provide a complete narrative on product distribution including items such as: end-product quantities, anticipated final grades, packaging, labeling, loading, and tracking bulk material.

(vi) Process diagram. Present a process diagram that displays graphically, the narrative generated in response to clauses (i) - (v) of this paragraph;

(B) the minimum number of personnel and their functions to be provided by the site operator in order to have adequate capability to conduct the operation in conformance with the design and operational standards;

(C) the minimum number and operational capacity of each type of equipment to be provided by the site operator in order to have adequate capability to conduct the operation in conformance with the design and operational standards;

(D) security, site access control, traffic control, and safety;

(E) control of dumping within designated areas, screening for unprocessable, prohibited, and unauthorized material;

(F) a fire prevention and suppression plan that complies with provisions of the local fire code, which shall also be sent to the local fire protection entity responsible for responding to a fire at the facility;

(G) control of windblown material;

(H) vector control;

(I) quality assurance and quality control.

(i) Municipal sewage sludge compost facilities. The operator shall comply with the provisions of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(ii) All other registered facilities. As a minimum, the applicant shall provide testing and assurance in accordance with the provisions of §332.71 of this title (relating to Sampling and Analysis Requirements for Final Product).

(J) equipment failures, including alternative plans in the event of an equipment failure; and

(K) a description of the anticipated final grade of the materials.

(13) Construction plans and specifications. The applicant shall submit facility construction plans and specifications. The facility plans and specifications shall reflect the provisions of this chapter to the maximum extent possible.

(14) Closure plan. The applicant shall provide a plan for proper closure of the facility, including disposition of any remaining feedstocks, in-process, and processed materials.

(15) Financial assurance. The applicant shall be subject to the requirements of §328.5(c) - (e) of this title (relating to Reporting and Recordkeeping Requirements).

Adopted October 13, 2004 Effective November 4, 2004

§332.35. Registration Application Processing.

(a) An application shall be submitted to the executive director. When an application is administratively complete, the executive director shall assign the application an identification number.

(b) Public Notice.

(1) When an application is administratively complete the chief clerk shall mail notice to adjacent landowners. The chief clerk also shall mail notice to other affected landowners as directed by the executive director.

(2) When an application is technically complete the chief clerk shall mail notice to adjacent landowners. The chief clerk shall also mail notice to other affected landowners as directed by the executive director. The applicant shall publish notice in the county in which the facility is located, and in adjacent counties. The published notice shall be published once a week for three weeks. The applicant should attempt to obtain publication in a Sunday edition of a newspaper. The notice shall explain the method for submitting a motion for reconsideration.

(3) Notice issued under paragraphs (1) or (2) shall contain the following information:

(A) the identifying number given the application by the executive director;

(B) the type of registration sought under the application;

(C) the name and address of the applicant(s);

(D) the date on which the application was submitted; and

(E) a brief summary of the information included in the application.

(c) The executive director or his designee shall, after review of any application for registration of a compost facility determine if he will approve or deny an application in whole or in part. The executive director shall base his decision on whether the application meets the requirements of this subchapter and the requirements of §332.4 of this title (relating to General Requirements).

(d) At the same time that the executive director's decision is mailed to the applicant, a copy or copies of this decision shall also be mailed to all adjacent and affected landowners, residents, and businesses.

(e) Motion for reconsideration. The applicant or a person affected may file with the chief clerk a motion for reconsideration, under §50.39(b)-(f) of this title (relating to Motion for Reconsideration), of the executive director's final approval of an application.

Adopted April 16, 1997 Effective May 15, 1997

§332.36. Location Standards.

Facilities shall meet all of the following locational criteria.

(1) One-hundred year flood-plain. The facility shall be located outside of the one hundred-year floodplain unless the applicant can demonstrate that the facility is designed and will operate to prevent washout during a 100-year storm event, or obtains a Conditional Letter of Map Amendment (CLOMA) from the Federal Emergency Management Administration (FEMA) Administrator.

(2) Drainage. The facility shall not significantly alter existing drainage patterns.

(3) Wetlands. The facility shall not be located in wetlands.

(4) Water wells. The facility shall be located at least 500 feet from all public water wells and at least 150 feet from private water wells.

(5) Surface water. The facility shall be located at least 100 feet from creeks, rivers, intermittent streams, lakes, bayous, bays, estuaries, or other surface waters in the state.

(6) Set back distance from facility boundary. The set back distance from the facility boundary to the areas for receiving, processing, or storing feedstock or final product shall be at least 50 feet.

(7) Edwards aquifer recharge zone. If located over the Recharge Zone of the Edwards Aquifer, a facility is subject to Chapter 313 of this title (relating to Edwards Aquifer). The Edwards Aquifer Recharge Zone is specifically that area delineated on maps in the office of the executive director.

Adopted November 1, 1995 Effective November 29, 1995

§332.37. Operational Requirements.

The operation of the facility must comply with all of the following operational requirements.

(1) Protection of surface water. The facility must be constructed, maintained, and operated to manage run-on and run-off during a 25-year, 24-hour rainfall event and must prevent discharge into waters in the state of feedstock material, including, but not limited to, in-process and/or processed materials. Any waters coming into contact with feedstock, in-process, and processed materials must be considered leachate. Leachate must be contained in retention facilities until reapplied on piles of feedstock, in-process, or unprocessed materials. The retention facilities must be lined and the liner must be constructed in compliance with paragraph (2) of this section. Leachate may be treated and processed at an authorized facility or as authorized by a Texas Pollutant Discharge Elimination System permit. The use of leachate in any processing must be conducted in a manner that does not contaminate the final product.

(2) Protection of groundwater. The facility must be designed, constructed, maintained, and operated to protect groundwater. Facilities that compost municipal sewage sludge, disposable diapers, and/or the sludge byproduct of paper mill production must install and maintain a liner system complying with the provisions of subparagraph (A), (B), or (C) of this paragraph. The liner system must be provided where receiving, mixing, composting, post-processing, screening, or storage areas would be in contact with the ground or in areas where leachate, contaminated materials, contaminated product, or contaminated water is stored or retained. The application must demonstrate the facility is designed to prevent contamination or degradation of the groundwater. For the purposes of these sections, protection of the groundwater includes the protection of perched water or shallow surface infiltration. The lined surface must be covered with a material designed to withstand normal traffic from the composting operations. At a minimum, the lined surface must consist of soil, synthetic, or an alternative material that is equivalent to two feet of compacted clay with a hydraulic conductivity of 1 x 10^{-7} centimeters per second or less.

(A) Soil liners shall have more than 30% passing a number 200 sieve, have a liquid limit greater than 30%, and a plasticity index greater than 15.

(B) Synthetic liners shall be a membrane with a minimum thickness of 20 mils.

(C) Alternative designs shall utilize an impermeable liner (such as concrete).

(3) Unauthorized and prohibited materials. The operator shall operate the facility in a manner that will preclude the entry of any unauthorized or prohibited materials from entering the composting process.

(4) Access. Access to the facility shall be controlled to prevent unauthorized disposal of unauthorized or prohibited material and scavenging. The facility shall be completely fenced with a gate that is locked when the facility is closed.

(5) Nuisance conditions. The facility shall be sited and operated in such a manner as to prevent the potential of nuisance conditions and fire hazards. Where nuisance conditions or fire hazards exist, the operator will immediately take action to abate such nuisances.

(6) Aerobic composting required. The facility shall utilize functionally aerobic composting methods, although an anaerobic composting phase may be utilized in the early stages of processing, if it is followed by a period of functionally aerobic composting.

(7) Site sign. The facility shall have a sign at the entrance indicating the type of facility, the registration number, hours of operation, and the allowable feedstocks.

(8) Access road. The facility access road shall be an all-weather road.

(9) Authorization required for significant changes. The operator shall obtain written permission from the commission before changing the processing method or other significant changes to the original registration application.

(10) Prohibited substances. Fungicides, herbicides, insecticides, or other pesticides that contain constituents listed in 40 Code of Federal Regulations Part 261, Appendix VIII-Hazardous Constituents or on the Hazardous Substance List as defined in the CERCLA shall not be applied to or incorporated into feedstocks, in-process materials, or processed materials.

(11) End-product standards.

(A) Facilities that compost municipal sewage sludge. For facilities that compost only municipal sewage sludge or compost municipal sewage sludge with any source-separated materials, the operator shall comply with the provisions of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation) and shall not exceed the foreign matter criteria contained §332.72(d)(2)(A) and (D) of this title (relating to Final Product Grades).

(B) All other registered facilities. The operator shall meet compost testing requirements set forth in §332.71 of this title (relating to Sampling and Analysis Requirements for Final Product), final product grades set forth in §332.72 of this title, and label all materials which are sold or distributed as set forth in §332.74 of this title (relating to Compost Labelling Requirements).

(12) Certified operator. The operator shall employ at least one TCEQ-certified compost operator within six months from the adoption of this rule, the initiation of operations at the compost facility, or the establishment of the compost certification program, whichever occurs later, and a TCEQ-certified compost operator shall routinely be available on-site during the hours of operation.

(13) Chemical release. The operator of a compost facility shall address the release of a chemical of concern from a compost facility to any environmental media under the requirements of Chapter 350 of this title (relating to Texas Risk Reduction Program) to perform the corrective action.

Adopted December 17, 2003 Effective January 8, 2004

§332.38. Records Requirements.

(a) Facilities that compost municipal sewage sludge. For facilities that compost only municipal sewage sludge or compost municipal sewage sludge with any source-separated materials, the operator shall comply with the provisions of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(b) All other registered facilities.

(1) The operator shall maintain records on-site, available for inspection by the commission, for a period consisting of the two most recent calendar years. The records shall consist of the following:

(A) the facility registration obtained from the commission;

(B) a log of abnormal events at the facility, including but not limited to, process disruptions, extended equipment failures, injuries, and weather damage; and

(C) results of final product testing required by §332.71(j) of this title (relating to Sampling and Analysis Requirements for Final Product).

(2) The operator shall maintain copies of the annual report on-site for the five most recent calendar years.

Adopted November 1, 1995 Effective November 29, 1995

Disposition Table
Rule Log No. 96170-050-AD
Hearings Requests/Procedural Rules
Adopted April 16, 1997
Effective May 15, 1997

Chapter 332 - Composting
Subchapter C: Operations Requiring Registration

This table is to track section during and after rule revisions. The column on the left lists the current sections before the revision. The column on the right lists where the section is located after adoption.

Old Section	New Section
332.35 (e)	Repealed portion; see 50.39

SUBCHAPTER D: OPERATIONS REQUIRING A PERMIT
§§332.41 - 332.47
Effective November 4, 2004

§332.41. Definition, Requirements, and Application Processing for a Permit Facility.

(a) Definition of permitted facilities. The following operations are subject to the requirements of this subchapter:

(1) operations that compost mixed municipal solid waste not in accordance with §332.31 of this title (relating to Definition of and Requirements for Registered Facilities);

(2) operations that add any amount of mixed municipal solid waste as a feedstock in the composting process; and

(3) operations that commercially compost grease trap waste.

(b) Requirements for permitted facilities. The operations listed in subsection (a) of this section are subject to the general requirements found in §332.4 of this title (relating to General Requirements), and the requirements set forth in this subchapter, the requirements set forth in Subchapters E - G of this chapter (relating to Source-Separated Recycling; Household Hazardous Waste Collection; and End-Product Standards), and the air quality requirements set forth in §332.8 of this title (relating to Air Quality Requirements).

(c) Processing of application for a permitted facility. All permit applications are subject to the standards and requirements as set forth in Chapter 39, Subchapters H and I of this title (relating to Public Notice); Chapter 50, Subchapters E - G of this title (relating to Action on Applications and Other Authorizations); and Chapter 55, Subchapters D - F of this title (relating to Requests for Reconsideration and Contested Case Hearings; Public Notice).

Adopted December 17, 2003 Effective January 8, 2004

§332.42. Certification by Engineer, Ownership or Control of Land, and Inspection.

(a) Certification by registered professional engineer. The operator shall obtain certification by a Texas-Registered Professional Engineer that the facility has been constructed as designed and in general compliance with the regulations prior to accepting any feedstock at the facility that requires a permit and maintaining that certification on-site available for inspection by the commission; and

(b) Ownership or control of property. The facility shall be located on property owned by the operator or the operator shall establish, using an affidavit form provided by the commission, signed by the owner and notarized, that the owner is aware of and consents to the operation prior to any receipt of feedstock or processing activities. A copy of the affidavit shall be kept on-site at all times.

(c) Inspection of facility. Prior to the initial acceptance of any feedstocks, the facility shall be inspected by the TNRCC to determine compliance with the permit.

Adopted November 1, 1995 Effective November 29, 1995

§332.43. Required Forms, Applications, and Reports.

The operator shall submit all of the following.

(1) TNRCC Compost Form Number 2. The operator shall submit TNRCC Compost Form Number 2, "Notice of Intent to Apply for a Compost Facility Registration or Permit," and a permit application prepared in accordance with the requirements of §332.47 of this title (relating to Permit Application Preparation).

(2) Annual report. The operator shall submit annual written reports. These reports shall at a minimum include input and output quantities, a description of the end-product distribution, and all results of any required laboratory testing. A copy of the annual report shall be kept on-site for a period of five years.

(3) Final product testing report. Facilities requiring registration must submit reports on final product testing to the executive director in compliance with §332.71(j)(1) of this title (relating to Sampling and Analysis Requirements for Final Product) on a monthly basis.

(4) Engineer's appointment. An engineer's appointment which consists of a letter from the applicant to the Executive Director identifying the engineer responsible for the submission of the plan, specifications and any other technical data to be evaluated by the commission regarding the project.

Adopted August 21, 2002 Effective September 12, 2002

§332.44. Location Standards.

Facilities shall meet all of the following locational criteria:

(1) One-hundred year floodplain. The facility shall be located outside of the one hundred-year floodplain unless the applicant can demonstrate that the facility is designed and will operate to prevent washout during a 100-year storm event, or obtains a Conditional Letter of Map Amendment (CLOMA) from the Federal Emergency Management Administration (FEMA) Administrator.

(2) Drainage. The facility shall not significantly alter existing drainage patterns.

(3) Wetlands. The facility shall not be located in wetlands.

(4) Water wells. The facility shall be located at least 500 feet from all public water wells and at least 150 feet from private water wells.

(5) Surface water. The facility shall be located at least 100 feet from creeks, rivers, intermittent streams, lakes, bayous, bays, estuaries, or other surface waters in the state.

(6) Set back distance from facility boundary. The set back distance from the facility boundary to the areas for receiving, processing, or storing feedstock or final product shall be at least 50 feet.

(7) Edwards Aquifer Recharge Zone. If located over the Recharge Zone of the Edwards Aquifer, a facility is subject to Chapter 313 of this title (relating to Edwards Aquifer). The Edwards Aquifer Recharge Zone is specifically that area delineated on maps in the office of the executive director.

Adopted November 1, 1995 Effective November 29, 1995

§332.45. Operational Requirements.

The operation of the facility shall comply with all of the following operational requirements.

(1) Protection of surface water. The facility shall be constructed, maintained and operated to manage run-on and run-off during a 25-year, 24-hour rainfall event and shall prevent discharge into waters in the state of feedstock material, including but not limited to, in-process and/or processed materials. Any waters coming into contact with feedstock, in-process, and processed materials shall be considered leachate. Leachate shall be contained in retention facilities until it is reapplied on piles of feedstock, in-process, or unprocessed materials, or it is disposed or treated. The retention facilities shall be lined and the liner shall be constructed in compliance with §332.47(6)(C) of this title (relating to Permit Application Preparation). Leachate may be treated and processed at an authorized facility or as authorized by an NPDES permit. The use of leachate in any processing shall be conducted in a manner that does not contaminate the final product.

(2) Protection of groundwater. The facility shall be constructed, maintained and operated to protect groundwater. As a minimum, groundwater protection shall be in accordance with the provisions of §332.47(6)(C) of this title.

(3) Unauthorized and prohibited materials. Delivery of unauthorized or prohibited materials shall be prevented. As a minimum there shall be one employee on-site at all times inspecting each delivery of feedstock to insure there is no unauthorized or prohibited material incorporated into the feedstock.

(4) Access. Access to the facility shall be controlled to prevent unauthorized disposal of unauthorized and prohibited materials, and scavenging. The facility shall be completely fenced with a gate that is locked when the facility is closed.

(5) Nuisance conditions. The facility shall be sited and operated in such a manner as to prevent the potential of nuisance conditions and fire hazards. Where nuisance conditions or fire hazards exist, the operator will immediately take action to abate such nuisances.

(6) Aerobic composting required. The facility shall utilize functionally aerobic composting methods, although an anaerobic composting phase may be utilized in the early stages of processing, if it is followed by a period of functionally aerobic composting.

(7) Site sign. The facility shall have a sign at the entrance indicating the type of facility, the permit number, hours of operation and the allowable feedstocks.

(8) Access road. The facility access road shall be an all-weather road.

(9) Amendment required for significant changes. The operator shall submit and obtain a permit amendment from the commission in compliance with Chapter 305 of this title (relating to Consolidated Permits) before changing the processing method or other significant changes to the original permit application.

(10) Prohibited substances. Fungicides, herbicides, insecticides or other pesticides that contain constituents listed in 40 CFR Part 261, Appendix VIII-Hazardous Constituents or on the Hazardous Substance List as defined in the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) shall not be applied to or incorporated into feedstocks, in-process materials or processed materials.

(11) End-product standards. The operator shall meet compost testing requirements set forth in §332.71 of this title (relating to Sampling and Analysis Requirements for Final Product), final product grades set forth in §332.72 of this title (relating to Final Product Grades), and label all materials which are sold or distributed as set forth in §332.74 of this title (relating to Final Product Labelling Requirements).

(12) Certified compost operator. The operator shall employ at least one TNRCC-certified compost operator within six months from the adoption of this title, or the initiation of operations at the facility, or the establishment of the compost certification program whichever occurs later and a TNRCC-certified compost operator shall routinely be on-site during the hours of operation.

(13) The operator of a compost facility shall address the release of a chemical of concern from a compost facility to any environmental media under the requirements of Chapter 350 of this title (relating to Texas Risk Reduction Program) to perform the corrective action.

Adopted September 2, 1999 Effective September 23, 1999

§332.46. Records Requirements.

(a) Records. The operator shall maintain records on-site, available for inspection by the commission, for a period consisting of the two most recent calendar years. The records shall consist of the following:

(1) the facility operating permit obtained from the commission;

(2) a log of abnormal events at the facility, including but not limited to, process disruptions, extended equipment failures, injuries, and weather damage; and

(3) results of final product testing required by §332.71(j) of this title (relating to Sampling and Analysis Requirements for Final Product).

(b) Copies. The operator shall maintain copies of the annual report on-site for the five most recent calendar years.

Adopted November 1, 1995 Effective November 29, 1995

§332.47. Permit Application Preparation.

To assist the commission in evaluating the technical merits of a compost facility, an applicant subject to this chapter shall submit a site development plan to the commission along with Compost Form Number 3. The site development plan must be sealed by a registered professional engineer in accordance with the provisions of 22 TAC §131.166 (relating to Engineers' Seals). If the site development plan is submitted in a three-ring binder or in a format that allows the removal or insertion of individual pages, it will not be considered a bound document. The site development plan must contain all of the following information.

(1) Title page. A title page shall show the name of the project, the county (and city if applicable) in which the proposed project is located, the name of the applicant, the name of the engineer, the date the application was prepared, and the latest date the application was revised.

(2) Table of contents. A table of contents shall be included, which lists the main sections of the plan, any requested variances, and includes page numbers.

(3) Engineer's appointment. The site development plan shall contain an engineer's appointment, which consists of a letter from the applicant to the executive director identifying the consulting engineering firm responsible for the submission of the plan, specifications, and any other technical data to be evaluated by the commission regarding the project.

(4) Land use. To assist the executive director in evaluating the impact of the facility on the surrounding area, the applicant shall provide the following:

(A) a description of the zoning at the facility and within one mile of the facility. If the facility requires approval as a nonconforming use or a special use permit from the local government having jurisdiction, a copy of such approval shall be submitted with the application;

(B) a description of the character of the surrounding land uses within one mile of the proposed facility;

(C) proximity to residences and other uses (e.g., schools, churches, cemeteries, historic structures, historic sites, archaeologically significant sites, sites having exceptional aesthetic quality, parks, recreational sites, recreational facilities, licensed day care, etc.). Give the approximate number of residences and business establishments within one mile of the proposed facility including the distances and directions to the nearest residences and businesses;

(D) a discussion that shows the facility is compatible with the surrounding land uses; and

(E) a constructed land use map showing the land use, zoning, residences, businesses, schools, churches, cemeteries, historic structures, historic sites, archaeologically significant sites, sites having exceptional aesthetic quality, licensed day care centers, parks, recreational sites and recreational facilities within one mile of the facility, and wells within 500 feet of the facility.

(5) Access. To assist the executive director in evaluating the impact of the facility on the surrounding roadway system, the applicant shall provide the following:

(A) data on the roadways, within one mile of the facility, used to access the facility. The data shall include dimensions, surfacing, general condition, capacity, and load limits;

(B) data on the volume of vehicular traffic on access roads within one mile of the proposed facility. The applicant shall include both existing and projected traffic during the life of the facility (for projected include both traffic generated by the facility and anticipated increase without the facility);

(C) an analysis of the impact the facility will have on the area roadway system, including a discussion on any mitigating measures (turning lanes, roadway improvements, intersection improvements, etc.) proposed with the project; and

(D) an access roadway map showing all area roadways within a mile of the facility. The data and analysis required in subparagraphs (A) - (C) of this paragraph shall be keyed to this map.

(6) Facility development. To assist the executive director in evaluating the impact of the facility on the environment, the applicant shall provide the following.

(A) Surface water protection plan. The surface water protection plan shall be prepared by a registered professional engineer. At a minimum, the applicant shall provide all of the following:

(i) a design for a run-on control system capable of preventing flow onto the facility during the peak discharge from at least a 25-year, 24-hour rainfall event;

(ii) a design for a runoff management system to collect and control at least the peak discharge from the facility generated by a 25-year, 24-hour rainfall event;

(iii) a design for a contaminated water collection system to collect and contain all leachate. If the design uses leachate for any processing, the applicant shall clearly demonstrate that such use will not result in contamination of the final product; and

(iv) drainage calculations as follows.

(I) Calculations for areas of 200 acres or less shall follow the rational method as specified in the Texas Department of Transportation Bridge Division Hydraulic Manual.

(II) Calculations for discharges from areas greater than 200 acres shall be computed by using USGS/DHT hydraulic equations compiled by the United States Geological Survey and the Texas Department of Transportation Bridge Division Hydraulic Manual, the HEC-1 and HEC-2 computer programs developed through the Hydrologic Engineering Center of the United States Army Corps of Engineers, or an equivalent or better method approved by the executive director.

(III) Calculations for sizing containment facilities for leachate shall be determined by a mass balance based on the facility's proposed leachate disposal method.

(IV) Temporary and permanent erosion control measures shall be discussed;

(v) drainage maps and drainage plans shall be provided as follows:

(I) an off-site topographic drainage map showing all areas which contribute to the facility's run-on. The map shall delineate the drainage basins and sub-basins, show the direction of flow, time of concentration, basin area, rainfall intensity, and flow rate. This map shall also show all creeks, rivers, intermittent streams, lakes, bayous, bays, estuaries, arroyos, and other surface waters in the state;

(II) a pre-construction on-site drainage map. The map shall delineate the drainage basins and sub-basins, show the direction of flow, time of concentration, basin area, rainfall intensity and flow rate;

(III) a post-construction on-site drainage map. The map shall delineate the drainage basins and sub-basins, show the direction of flow, time of concentration, basin area, rainfall intensity, and flow rate;

(IV) a drainage facilities map. The map shall show all proposed drainage facilities (ditches, ponds, piping, inlets, outfalls, structures, etc.) and design

parameters (velocities, cross-section areas, grades, flowline elevations, etc.). Complete cross-sections of all ditches and ponds shall be included;

(V) a profile drawing. The drawing shall include profiles of all ditches and pipes. Profiles shall include top of bank, flowline, hydraulic grade, and existing groundline. Ditches and swells shall have a minimum of one foot of freeboard;

(VI) a floodplain and wetlands map. The map shall show the location and lateral extent of all floodplains and wetlands on the site and on lands within 500 feet of the site; and

(VII) an erosion control map which indicates placement of erosion control features on the site.

(B) Geologic/hydrogeologic report. The geologic/hydrogeologic report shall be prepared by an engineer or qualified geologist/hydrogeologist. The applicant shall include discussion and information on all of the following:

(i) a description of the regional geology of the area. This section shall include:

(I) a geologic map of the region with text describing the stratigraphy and lithology of the map units. An appropriate section of a published map series such as the Geologic Atlas of Texas prepared by the Bureau of Economic Geology is acceptable;

(II) a description of the generalized stratigraphic column in the facility area from the base of the lowermost aquifer capable of providing usable groundwater, or from a depth of 1,000 feet, whichever is less, to the land surface. The geologic age, lithology, variation in lithology, thickness, depth geometry, hydraulic conductivity, and depositional history of each geologic unit should be described based upon available geologic information;

(ii) a description of the geologic processes active in the vicinity of the facility. This description shall include an identification of any faults and/or subsidence in the area of the facility;

(iii) a description of the regional aquifers in the vicinity of the facility based upon published and open-file sources. The section shall provide:

(I) aquifer names and their association with geologic units described in clause (i) of this subparagraph;

(II) a description of the composition of the aquifer(s);

(III) a description of the hydraulic properties of the aquifer(s);

(IV) identification of areas of recharge to the aquifers within five miles of the site; and

(V) the present use of groundwater withdrawn from aquifers in the vicinity of the facility;

(iv) subsurface investigation report. This report shall describe all borings drilled on site to test soils and characterize groundwater and shall include a site map drawn to scale showing the surveyed locations and elevations of the boring. Boring logs shall include a detailed description of materials encountered including any discontinuities such as fractures, fissures, slickensides, lenses, or seams. Each boring shall be presented in the form of a log that contains, at a minimum, the boring number; surface elevation and location coordinates; and a columnar section with text showing the elevation of all contacts between soil and rock layers description of each layer using the Unified Soil Classification, color, degree of compaction, and moisture content. A key explaining the symbols used on the boring logs and the classification terminology for soil type, consistency, and structure shall be provided.

(I) A sufficient number of borings shall be performed to establish subsurface stratigraphy and to determine geotechnical properties of the soils and rocks beneath the facility. The number of borings necessary can only be determined after the general characteristics of a site are analyzed and will vary depending on the heterogeneity of subsurface materials. The minimum number of borings required for a site shall be three for sites of five acres or less, and for sites larger than five acres the required number of borings shall be three borings plus one boring for each additional five acres or fraction thereof. The boring plan shall be approved by the executive director prior to performing the bores.

(II) Borings shall be sufficiently deep to allow identification of the uppermost aquifer and underlying hydraulically interconnected aquifers. Boring shall penetrate the uppermost aquifer and all deeper hydraulically interconnected aquifers and be deep enough to identify the aquiclude at the lower boundary. All the borings shall be at least 30 feet deeper than the elevation of the deepest excavation on site and in no case shall be less than 30 feet below the lowest elevation on site. If no aquifers exist within 50 feet of the elevation of the deepest excavation, at least one test bore shall be drilled to the top of the first perennial aquifer beneath the site. In areas where it can be demonstrated that the uppermost aquifer is more than 300 feet below the deepest excavation, the applicant shall provide the demonstration to the executive director and the executive director shall have the authority to waive the requirement for the deep bore.

(III) All borings shall be conducted in accordance with established field exploration methods.

(IV) Installation, abandonment, and plugging of the boring shall be in accordance with the rules of the commission.

(V) The applicant shall prepare cross-sections utilizing the information from the boring and depicting the generalized strata at the facility.

(VI) The report shall contain a summary of the investigator's interpretations of the subsurface stratigraphy based upon the field investigation;

(v) groundwater investigation report. This report shall establish and present the groundwater flow characteristics at the site which shall include groundwater elevation, gradient, and direction of flow. The flow characteristics and most likely pathway(s) for pollutant migration shall be discussed in a narrative format and shown graphically on a piezometric contour map. The groundwater data shall be collected from piezometers installed at the site. The minimum number of piezometers required for the site shall be three for sites of five acres or less, for sites greater than five acres the total number of piezometer required shall be three piezometer plus one piezometer for each additional five acres or fraction thereof.

(C) Groundwater protection plan. The application shall demonstrate that the facility is designed so as not to contaminate the groundwater and so as to protect the existing groundwater quality from degradation. For the purposes of these sections, protection of the groundwater includes the protection of perched water or shallow surface infiltration. As a minimum, groundwater protection shall consist of all of the following.

(i) Liner system. All feedstock receiving, mixing, composting, post-processing, screening, and storage areas shall be located on a surface which is adequately lined to control seepage. The lined surface shall be covered with a material designed to withstand normal traffic from the composting operations. At a minimum, the lined surface shall consist of soil, synthetic, or an alternative material that is equivalent to two feet of compacted clay with a hydraulic conductivity of 1 x 10^{-7} centimeters per second or less.

(I) Soil liners shall have more than 30% passing a number 200 sieve, have a liquid limit greater than 30%, and a plasticity index greater than 15.

(II) Synthetic liners shall be a membrane with a minimum thickness of 20 mils.

(III) Alternative designs shall utilize an impermeable liner (such as concrete).

(ii) Groundwater monitor system. The groundwater monitoring system shall be designed and installed such that the system will reasonably assure detection of any contamination of the groundwater before it migrates beyond the boundaries of the site. The monitoring system shall be designed based upon the information obtained in the "Groundwater investigation report" required by subparagraph (B)(v) of this paragraph.

(I) Details of monitor well construction and placement of monitor wells shall be shown on the site plan.

(II) A groundwater sampling program shall provide four background groundwater samples of all monitor wells within 24 months from the date of the issuance of

the permit. The background levels shall be established from samples collected from each well at least once during each of the four calendar quarters: January - March; April - June; July - September; and October - December. Samples from any monitor well shall not be collected for at least 45 days following collection of a previous sample, unless a replacement sample is necessary. At least one sample per well shall be collected and submitted to a laboratory for analysis within 60 days of permit issuance for existing or previously registered operations, or prior to accepting any material for processing at a new facility. Background samples shall be analyzed for the parameters as follows:

(-a-) heavy metals, arsenic, copper, mercury, barium, iron, selenium, cadmium, lead, chromium, and zinc;

(-b-) other parameters: calcium, magnesium, sodium, carbonate, bicarbonate, sulphate, fluoride, nitrate (as N), total dissolved solids, phenolphthalein alkalinity as $CaCo_3$, alkalinity as $CaCo_3$, hardness as $CaCo_3$, pH, specific conductance, anion-cation balance, groundwater elevation (MSL), and total organic carbon (TOC) (four replicates/sample); and

(-c-) after background values have been determined, the following indicators shall be measured at a minimum of 12-month intervals: TOC (four replicates), iron, manganese, pH, chloride, groundwater elevation (MSL), and total dissolved solids. After completion of the analysis, an original and two copies shall be sent to the executive director and a copy shall be maintained on site.

(-d-) The executive director may waive the requirement to monitor for any of the constituents listed in items (-a-) - (-c-) of this subclause in a permit, if it can be documented that these constituents are not reasonably expected to be in or derived from the bulking or feedstock materials. A change to the monitoring requirements may be incorporated into a permit when issued or as a modification under §305.70 of this title (relating to Municipal Solid Waste Permit and Registration Modifications).

(-e-) The executive director may establish an alternative list of constituents for a permit, if the alternative constituents provide a reliable indication of a release to the groundwater. The executive director may also add inorganic or organic constituents to those to be tested if they are reasonably expected to be in or derived from the bulking or feedstock materials. A change to the monitoring requirements may be incorporated into a permit when issued or as a modification under §305.70 of this title.

(D) Facility plan and facility layout. The facility plan and facility layout must be prepared by a registered professional engineer. All proposed facilities, structures, and improvements must be clearly shown and annotated on this drawing. The plan must be drawn to standard engineering scale. Any necessary details or sections must be included. As a minimum, the plan must show property boundaries, fencing, internal roadways, tipping area, processing area, post-processing area, facility office, sanitary facilities, potable water facilities, storage areas, etc. If phasing is proposed for the facility, a separate facility plan for each phase is required.

(E) Process description. The process description shall be composed of a descriptive narrative along with a process diagram. The process description shall include all of the following.

(i) Feedstock identification. The applicant shall prepare a list of the materials intended for processing along with the anticipated volume to be processed. This section shall also contain an estimate of the daily quantity of material to be processed at the facility along with a description of the proposed process of screening for unauthorized materials.

(ii) Tipping process. Indicate what happens to the feedstock material from the point it enters the gate. Indicate how the material is handled in the tipping area, how long it remains in the tipping area, what equipment is used, how the material is evacuated from the tipping area, at what interval the tipping area is cleaned, the process used to clean the tipping area.

(iii) Process. Indicate what happens to the material as it leaves the tipping area. Indicate how the material is incorporated into the process and what process or processes are used until it goes to the post-processing area. The narrative shall include water addition, processing rates, equipment, energy and mass balance calculations, and process monitoring method.

(iv) Post-processing. Provide a complete narrative on the post-processing, including post-processing times, identification and segregation of product, storage of product, quality assurance, and quality control.

(v) Product distribution. Provide a complete narrative on product distribution to include items such as: end product quantities, qualities, intended use, packaging, labeling, loading, and tracking bulk material.

(vi) Process diagram. Present a process diagram that displays graphically the narrative generated in response to clauses (i) - (v) of this subparagraph.

(7) Site operating plan. This document is to provide guidance from the design engineer to site management and operating personnel in sufficient detail to enable them to conduct day-to-day operations in a manner consistent with the engineer's design. As a minimum, the site operating plan shall include specific guidance or instructions on the all of the following:

(A) the minimum number of personnel and their functions to be provided by the site operator in order to have adequate capability to conduct the operation in conformance with the design and operational standards;

(B) the minimum number and operational capacity of each type of equipment to be provided by the site operator in order to have adequate capability to conduct the operation in conformance with the design and operational standards;

(C) security, site access control, traffic control, and safety;

(D) control of dumping within designated areas, screening for unprocessable or unauthorized material;

(E) fire prevention and control plan that shall comply with provisions of the local fire code, provision for fire-fighting equipment, and special training requirements for fire-fighting personnel;

(F) control of windblown material;

(G) vector control;

(H) quality assurance and quality control. As a minimum, the applicant shall provide testing and assurance in accordance with the provisions of §332.71 of this title (relating to Sampling and Analysis Requirements for Final Product);

(I) control of airborne emissions;

(J) minimizing odors;

(K) equipment failures and alternative disposal and storage plans in the event of equipment failure; and

(L) a description of the intended final use of materials.

(8) Legal description of the facility. The applicant shall submit an official metes and bounds description, and plat of the proposed facility. The description and plat shall be prepared and sealed by a registered surveyor.

(9) Financial assurance. The applicant shall prepare a closure plan acceptable to the executive director and provide evidence of financial assurance to the commission for the cost of closure. The closure plan at a minimum, shall include evacuation of all material on site (feedstock, in process, and processed) to an authorized facility and disinfection of all leachate handling facilities, tipping area, processing area, and post-processing area and shall be based on the worst case closure scenario for the facility, including the assumption that all storage and processing areas are filled to capacity. Financial assurance mechanisms must be established and maintained in accordance with Chapter 37, Subchapter J of this title (relating to Financial Assurance for Recycling Facilities). These mechanisms shall be prepared on forms approved by the executive director and shall be submitted to the commission 60 days prior to the receiving of any materials for processing, or within 60 days of a permit being issued for facilities operating under an existing registration.

(10) Source-separated recycling and household hazardous waste collection. The applicant shall submit a plan to comply with the requirements of Subchapters E and F of this chapter (relating to Source-Separated Recycling; and Household Hazardous Waste Collection).

(11) Landowner list. The applicant shall include a list of landowners, residents, and businesses within 1/2 mile of the facility boundaries along with an appropriately scaled map locating property owned by the landowners.

Adopted October 13, 2004 Effective November 4, 2004

SUBCHAPTER G : END-PRODUCT STANDARDS

§332.71. Sampling and Analysis Requirements for Final Product.

(a) Applicability. Facilities that receive a registration or permit under this chapter, are required to test final product in accordance with this section. Final product derived from municipal sewage sludge at registered facilities is not subject to the requirements of this section, but must comply with the requirements of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(b) Analytical methods. Facilities which use analytical methods to characterize their final product must use methods described in the following publications:

(1) Chemical and physical analysis shall utilize:

(A) "Test Methods for the Evaluation of Solid Waste, Physical/Chemical Methods" (SW-846);

(B) "Methods for Chemical Analysis of Water and Wastes" (EPA-600); or

(C) "Recommended Test Methods for the Examination of Composts and Composting" (Compost Council, 1995).

(2) Analysis of pathogens shall utilize "Standard Methods for the Examination of Water and Wastewater" (Water Pollution Control Federation, latest edition).

(3) Analysis for foreign matter shall utilize "Recommended Test Methods for the Examination of Composts and Composting" (Composting Council, 1995).

(4) Analysis for salinity and pH shall utilize NCR (North Central Regional) Method 14 for Saturated Media Extract (SME) Method contained in "Recommended Test Procedure for Greenhouse Growth Media" North Central Regional Publication Number 221 (Revised), Recommended Chemical Soil Test Procedures, Bulletin Number 49 (Revised), October 1988, pages 34-37.

(5) Analysis of total, fixed and volatile solids shall utilize Method 2540 G (Total, Fixed, and Volatile Solids in Solid and Semi-solid Samples) as described in "Standard Methods for the Examination of Water and Wastewater" (Water Pollution Control Federation, latest edition).

(6) Analysis for maturity shall utilize the reduction of organic matter (ROM) calculation method, as described in the TNRCC "Quality Assurance Program Plan" (QAPP) or a TNRCC approved Quality Assurance/Quality Control (QAQC) plan during the first 18 months of a facility's operation. Reduction in organic matter is calculated by measuring the volatile solids content

at two points in the composting process: when compost feedstocks are initially mixed and when the compost is sampled for end-product testing for total metals and PCBs. For purposes of compost maturity analysis, the effect of the addition and removal of volatile solids and fixed solids to the compost shall be included in the ROM calculation procedure. After the completion of the maturity testing protocol described in subsection (d) of this section, or the facility QAQC plan, or 18 months, which ever comes first, the method recommended in the protocol and approved by the TNRCC shall be utilized.

(c) Sample collection. Sample collection, preservation and analysis shall assure valid and representative results pursuant to an Agency-approved QAQC plan.

(d) Maturity Testing Protocol.

(1) A maturity testing protocol shall be described in the facility QAQC. The protocol shall consist of the ROM method or a comparison of the interim ROM method to a minimum of three test methods with one test method selected from each of subparagraphs (A), (B) and (C) of this paragraph, together with any method in subparagraph (D) of this paragraph:

(A) Chemical analyses:

(i) carbon/nitrogen ratio;

(ii) water soluble ions;

(iii) water soluble organic matter;

(iv) cation exchange capacity;

(v) electrical conductivity;

(vi) crude fiber analysis;

(vii) humification analysis; or

(viii) ratios of the above measurements.

(B) Physical analyses.

(i) Dewar self-heating, or

(ii) color.

(C) Respiration analyses:

(i) CO_2 or

(ii) O_2.

(D) Other test methods proposed in the facility QAQC plan and approved by the TNRCC.

(2) The test methods used in the maturity test protocol shall be based on methodologies published in peer reviewed scientific journals, the publication entitled "Recommended Test Methods for the Examination of Composts and Composting (Compost Council, 1995), or other methods as approved by the TNRCC.

(3) The completed maturity testing protocol shall lead to a recommended maturity testing method(s) capable of classifying compost into maturity grades described in §332.72 of this title (relating to Final Product Grades) and identifying materials which are stable but not mature. The maturity test protocol shall address seasonal variations in compost feedstock and shall be completed within 18 months of the start of a new compost feedstock mixture.

(4) The results of the protocol and recommendations shall be submitted to the TNRCC for review and approval. The basis of the TNRCC review and approval shall be the demonstration that the recommended method adequately classifies compost into maturity classes. The purpose of the TNRCC review and approval is not intended to provide detailed guidance to end users about the agricultural and horticultural compost uses.

(5) The compost maturity protocol does not need to be repeated unless a significantly new compost feedstock recipe is utilized.

(e) Documentation.

(1) Owners or operators of permitted or registered facilities shall record and maintain all of the following information regarding their activities of operation for three years after the final product is shipped off site or upon site closure:

(A) batch numbers identifying the final product sampling batch;

(B) the quantities, types and sources of feedstocks received and the dates received;

(C) the quantity and final product grade assigned described in §332.72 of this title;

(D) the date of sampling; and

(E) all analytical data used to characterize the final product, including laboratory quality assurance/quality control data.

(2) The following records shall be maintained on-site permanently or until site closure:

(A) sampling plan and procedures;

(B) training and certification records of staff; and

(C) maturity protocol test results.

(3) Records shall be available for inspection by TNRCC representatives during normal business hours.

(4) The executive director may at any time request by registered or certified mail that a generator submit copies of all documentation listed in paragraph (1) of this subsection for auditing the final product grade. Documentation requested under this section shall be submitted within ten working days of receipt of the request.

(f) Sampling Frequencies.

(1) Registered facilities. For those facilities which are required to register, all final product on-site must be sampled and assigned a final product grade set forth in §330.72 of this title (relating to Final Product Grades) at a minimum rate of one sample for every 5,000 cubic yard batch of final product or annually, whichever is more frequent. Each sample will be a composite of nine grab samples as discussed in subsection (g) of this section.

(2) Permitted facilities. For facilities requiring a permit, all final product on-site must be sampled and assigned a final product grade set forth in §330.72 of this title at a minimum rate of one sample for every 3,000 cubic yard batch of final product or monthly whichever is more frequent. Each sample will be a composite of nine grab samples as discussed in subsection (g) of this section.

(3) Alternative testing frequency. One year after the initiation of final product testing in accordance with this section, an operator of a registered or permitted facility may submit to the executive director a request for an alternative testing frequency. The request shall include a minimum of 12 consecutive months of final product test results for the parameters set forth in subsection (h) of this section. The executive director will review the request and determine if an alternative frequency is appropriate.

(g) Sampling requirements. For facilities subject to sampling and analysis, the operator shall utilize the protocol in the TNRCC QAPP or a TNRCC approved facility QAQC plan shall be followed. The executive director may at any time request that split samples be provided to an agency representative. Specific sampling requirements which must be satisfied include:

(1) Sampling from stockpiles. One third of the grab samples shall be taken from the base of the stockpile (at least 12 inches into the pile at ground level), one third from the exposed surface and one third from a depth of two feet from the exposed surface of the stockpile.

(2) Sampling from conveyors. Sampling times shall be selected randomly at frequencies which provide the same number of subsamples per volume of finished product as is required in subsection (d) of this section.

(A) If samples are taken from a conveyor belt, the belt shall be stopped at that time. Sampling shall be done along the entire width and depth of the belt.

(B) If samples are taken as the material falls from the end of a conveyor, the conveyor does not need to be stopped. Free-falling samples need to be taken to minimize the bias created as larger particles segregate or heavier particles sink to the bottom as the belt moves. In order to minimize sampling bias, the sample container shall be moved in the shape of a "D" under the falling product to be sampled. The flat portion of the "D" shall be perpendicular to the beltline. The circular portion of the "D" shall be accomplished to return the sampling container to the starting point in a manner so that no product to be sampled is included.

(h) Analytical Requirements. Final product subject to the sampling requirements of this section will be tested for all of the following parameters. The executive director may at any time request that additional parameters be tested. These parameters are intended to address public health and environmental protection.

(1) total metals, to include:

(A) Arsenic;

(B) Cadmium;

(C) Chromium;

(D) Copper;

(E) Lead;

(F) Mercury;

(G) Molybdenum;

(H) Nickel;

(I) Selenium; and

(J) Zinc.

(2) Maturity/Stability by reduction in organic matter on an interim basis and by approved method of maturity/stability analysis after the completion of the maturity/stability method protocol as described in subsections (b) and (d) of this section.

(3) weight percent of foreign matter, dry weight basis.

(4) pH by the saturated media extract method.

(5) salinity by the saturated media extract electrical conductivity method.

(6) pathogens:

(A) salmonella; and

(B) fecal coliform.

(7) Polychlorinated-biphenyls (PCBs) - required only for permitted facilities.

(i) Data Precision and Accuracy. Analytical data quality shall be established by EPA standard laboratory practices to ensure precision and accuracy.

(j) Reporting Requirements.

(1) Facilities requiring registration must report the following information to the executive director on a semi-annual basis for each sampling batch of final product. Facilities requiring a permit must report similarly but on a monthly basis. Reports must include, but may not be limited to all of the following information:

(A) batch numbers identifying the final product sampling batch;

(B) the quantities, types and sources of feedstocks received and the dates received;

(C) the quantity of final product and final product standard code assigned;

(D) the final product grade or permit number of the disposal facility receiving the final product if it is not Grade 1 or Grade 2 Compost as established in §332.72 of this title (relating to Final Product Grades);

(E) all analytical results used to characterize the final product including laboratory quality assurance/quality control data and chain-of-custody documentation; and

(F) the date of sampling.

(2) Reports must be submitted to the executive director within two months after the reporting period ends.

Adopted November 1, 1995 Effective November 29, 1995

§332.72. Final Product Grades.

(a) Applicability. Facilities that receive a registration or permit under this chapter, are required to test final product in accordance with this section. Final product derived from municipal sewage sludge at registered facilities is not subject to the requirements of this section, but must comply with the requirements of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(b) Grades. Compost material that has undergone the composting process and is ready for distribution shall be considered final product, and shall be classified with one of the following grade names:

(1) Grade 1 Compost;

(2) Grade 2 Compost;

(3) Waste Grade Compost.

(c) Final product testing. Final product shall be regularly tested pursuant to §332.71 of this title (relating to Sampling and Analysis Requirements for Final Product) to determine the product's grade. Testing of final product and interpretation of test results shall be conducted in accordance with the Texas Natural Resource Conservation Commission's current Quality Assurance Program Plan, or, in the case of facilities with TNRCC permits or registrations, the Quality Assurance Quality Control Plan specified in the facility's permit.

(d) Final product classification. Final product shall be classified according to the following classification system:

(1) Grade 1 Compost. To be considered Grade 1 Compost, the final product must meet all of the following criteria:

(A) Shall contain no foreign matter of a size or shape that can cause human or animal injury;

(B) Shall not exceed all Maximum Allowable Concentrations for Grade 1 Compost in Table 1 of this section; (Figure 1: 30 TAC 332.72(d)(1)(B))

Figure 1: 30 TAC 332.72

Table 1: Maximum Allowable Concentrations

PARAMETER	Grade 1 Compost (mg/kg)	Grade 2 Compost (mg/kg)
As	10	41
Cd	16	39
Cr (total)	180	1200
Cu	1020	1500
Pb	300	300
Hg	11	17
Mo	75	75
Ni	160	420
Se	36	36
Zn	2190	2800
PCBs	1	10

(C) Shall not contain foreign matter in quantities which cumulatively are greater than 1.5% dry weight on a 4mm screen;

(D) Shall meet the requirements of cured compost as described in Table 2 of this section; (Figure 2: 30 TAC 332.72(d)(1)(D))

Figure 2: 30 TAC 332.72

Table 2: Maturity and Stability Standards.

METHOD	SEMI-MATURE COMPOST	MATURE COMPOST	CURED COMPOST
Reduction of Organic Matter (ROM) (%)	Between 20% and than 60% 40%	Between 40% and 60%	Greater
Other Methods	Maturity Protocol	Maturity Protocol	Maturity Protocol

(E) Shall meet the requirements for pathogen reduction for Grade 1 Compost as described in Table 3 of this section; (Figure 3: 30 TAC 332.72(d)(1)(E)) and

Figure 3: 30 TAC 332.72

Table 3: Additional Final Product Standards.

PARAMETER	Grade 1 Compost	Grade 2 Compost
Salinity (mmhos/cm) <sup>1<\sup>10	10	
pH<sup>1<\sup>	5.0 to 8.5	5.0 to 8.5
Pathogens: Fecal Coliform	less than 1,000 MPN per gram of solid or meets PFRP	geometric mean density less than 2,000,000 MPN per gram of solids or meets PSRP
Salmonella	less than 3 MPN per 4 grams total solid or meets PFRP	No value

<sup>1<\sup> A higher conductivity or pH outside the indicated range may be appropriate if the compost is specified for a special use.

(F) Shall meet the requirements for salinity and pH for Grade 1 Compost as described in Table 3 of this section. (Figure 3: 30 TAC 332.72(d)(1)(E)).

(2) Grade 2 Compost:

(A) Shall contain no foreign matter of a size or shape that can cause human or animal injury;

(B) Shall not exceed all Maximum Allowable Concentrations for Grade 2 Compost in Table 1 of this section at a compost organic matter content which is equivalent to a mature compost when maturity is determined by reduction in organic matter during the interim period or a maturity test which is part of an approved maturity test protocol; (Figure 1: 30 TAC 332.72(d)(1)(B))

(C) Shall not contain foreign matter in quantities which cumulatively are greater than 1.5% dry weight on a 4mm screen;

(D) Shall meet the requirements of semi-mature compost, mature compost or cured compost as described in Table 2 of this section; (Figure 2: 30 TAC 332.72(d)(1)(D))

(E) Shall meet the requirements for pathogen reduction for Grade 2 Compost as described in Table 3 of this section; and (Figure 3: 30 TAC 332.72(d)(1)(E))

(F) Shall meet the requirements for salinity and pH for Grade 2 Compost as described in Table 3 of this section. (Figure 3: 30 TAC 332.72(d)(1)(E))

(3) Waste Grade Compost:

(A) Exceeds any one of the Maximum Allowable Concentrations for Grade 2 final product in Table 1 of this section, and (Figure 1: 30 TAC 332.72(d)(1)(B))

(B) Does not meet the other requirements of Grade 1 or Grade 2 Compost.

(e) Maturity adjustment. Compost which is semi-mature or mature shall have the metal concentrations adjusted to reflect the metal concentration which would occur if the compost met the criteria for a cured compost as described in Table 2, "Maturity and Stability Standards". (Figure 2: 30 TAC 332.72(d)(1)(D))

(f) Waste grade final product. Any material which does not meet the final product standards shall be appropriately disposed at a permitted municipal solid waste facility.

Adopted November 1, 1995 Effective November 29, 1995

§332.73. Allowable Uses of Final Product by Grade.

(a) Applicability. Facilities that receive a registration or permit under this chapter, are required to test final product in accordance with this section. Final product derived from municipal sewage sludge at registered facilities is not subject to the requirements of this section, but must comply with the requirements of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(b) Distribution. Distribution and use of final product shall be in accordance with the following restrictions:

(1) Grade 1 Compost. There are no restrictions on the use of Grade 1 compost.

(2) Grade 2 Compost. Grade 2 compost shall not be used at a residence or licensed child-care facility.

Adopted November 1, 1995 Effective November 29, 1995

§332.74. Compost Labelling Requirements.

(a) Applicability. Facilities that receive a registration or permit under this chapter, are required to test final product in accordance with this section. Final product derived from municipal sewage sludge at registered facilities is not subject to the requirements of this section, but must comply with the requirements of Chapter 312 of this title (relating to Sludge Use, Disposal, and Transportation).

(b) Label information. All compost distributed within Texas derived from feedstock identified in the registration and permit tiers in §332.3 of this title (relating to Applicability) shall be clearly labelled according to the following requirements. The label information must be grouped together and plainly printed in English and Spanish.

(1) Labels and vouchers. Compost distributed in containers shall have a label attached to or on the face of the container. Vouchers which provide the same information as required on labels shall be given to persons receiving compost distributed in bulk; and

(2) Labels/vouchers information. The label or voucher shall include the information described in subparagraphs (A) or (B) of this paragraph.

(A) General statement.

(i) Grade 1 Compost. This product is considered Grade 1 Compost and meets the requirements and standards described in 30 Texas Administrative Code, §332.72 and has unrestricted use.

(ii) Grade 2 Compost. This product is considered Grade 2 Compost and meets the requirements and standards 30 Texas Administrative Code, §332.72 and cannot be used at a residence or licensed child-care facility.

(B) Feedstocks. Specify the feedstock or feedstocks from which the compost was derived. When two or more feedstocks are used, the label or voucher shall indicate each feedstock used in descending order or predominance by wet weight. For purposes of specifying feedstocks for this labelling requirement, water added to composting materials shall not be considered a feedstock. The label shall identify one or more of the following general descriptions of feedstock:

(i) source-separated organic materials;

(ii) source-separated meat, fish, chicken, oils, or greases;

(iii) municipal sewage sludge;

(iv) organic materials derived from a positive sort of mixed municipal solid waste;

(v) grease trap waste;

(vi) disposable diapers;

(vii) the sludge byproduct of paper production; and

(viii) mixed municipal solid waste.

(C) Incorporation into soil. The label shall state that it is recommended that compost be mixed into the top 15 centimeters of soil.

Adopted November 1, 1995 Effective November 29, 1995

§332.75. Out of State Production.

Any compost produced outside of the State of Texas, which is distributed within Texas, shall be labeled pursuant to §332.74 of this title (relating to Final Product Labelling Requirements).

Adopted November 1, 1995 Effective November 29, 1995

Adoption of §§332.71-332.75
Date Adopted: November 1, 1995
Date Filed with the Secretary of State: November 6, 1995
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R315. Environmental Quality, Solid and Hazardous Waste.
R315-312. Recycling and Composting Facility Standards.
R315-312-1. Applicability.

(1) The standards of Rule R315-312 apply to any facility engaged in recycling or utilization of solid waste on the land including:

(a) composting;

(b) utilization of organic sludge, other than domestic sewage sludge and septage, and untreated woodwaste on land for beneficial use; and

(c) accumulation of wastes in piles for recycling or utilization.

(2) These standards do not apply to:

(a) animal feeding operations, including dairies, that compost exclusively manure and vegetative material and meet the composting standards of a Comprehensive Nutrient Management Plan;

(b) other composting operations in which waste from on-site is composted and the finished compost is used on-site; or

(c) hazardous waste.

(3) These standards do not apply to any facility that recycles or utilizes solid wastes solely in containers, tanks, vessels, or in any enclosed building, including buy-back recycling centers.

(4) The composting of domestic sewage sludge, on the site of its generation, is exempt from the requirements of Rule R315-312 but is regulated under the applicable requirements of Rule R317-8 and 40 CFR 503 by the Utah Division of Water Quality.

(5) Effective dates. An existing facility recycling or composting solid waste shall be placed upon a compliance schedule to assure compliance with the requirements of Rule R315-312 on or before a date established by the Executive Secretary.

R315-312-2. Recycling and Composting Requirements.

(1) Any recycling or composting facility shall meet the requirements of Section R315-302-2, and shall submit a general plan of operation and such other information as requested by the Executive Secretary prior to the commencement of any recycling operation.

(2) Each applicable recycling or composting facility shall submit a certification that the facility has, during the past year, operated according to the submitted plan of operation to the Executive Secretary by March 1 of each year.

(3) Any facility storing materials in outdoor piles for the purpose of recycling shall be considered to be disposing of solid waste if:

(a) at least 50% of the material on hand at the beginning of a year at the facility has not been shown to have been recycled by the end of that year and any material has been on-site more than two years unless a longer period is approved by the Executive Secretary; or

(b) ground water or surface water, air, or land contamination has occurred or is likely to occur under current conditions of storage.

(c) Upon a determination by the Executive Secretary or his

authorized representative that the limits of Subsection R315-312-2(3)(a) or (b) have been exceeded, the Executive Secretary may require a permit application and issuance of a permit as a solid waste disposal facility.

(4) Any recycling or composting facility may be required to provide financial assurance for clean-up and closure of the site as determined by the Executive Secretary.

(5) Tires stored in piles for the purpose of recycling at a tire recycling facility shall be subject to the requirements of Section R315-314-3.

R315-312-3. Composting Requirements.

(1) No new composting facility shall be located in the following areas:

(a) wetlands, watercourses, or floodplains; or

(b) within 500 feet of any permanent residence, school, hospital, institution, office building, restaurant, or church.

(2) Each new compost facility shall meet the requirements of Subsection R315-302-1(2)(f)

(3) Each owner or operator of a composting facility, in addition to the operational plan required in Subsection R315-312-2(1), shall develop, keep on file, and abide by a plan that addresses:

(a) detailed plans and specifications for the entire composting facility including manufacturer's performance data for equipment;

(b) methods of measuring, grinding or shredding, mixing, and proportioning input materials;

(c) a description and location of temperature and other types of monitoring equipment and the frequency of monitoring;

(d) a description of any additive material, including its origin, quantity, quality, and frequency of use;

(e) special precautions or procedures for operation during wind, heavy rain, snow, and freezing conditions;

(f) estimated composting time duration, which is the time period from initiation of the composting process to completion;

(g) for windrow systems, the windrow construction, including width, length, and height;

(h) the method of aeration, including turning frequency or mechanical aeration equipment and aeration capacity; and

(i) a description of the ultimate use for the finished compost, the method for removal from the site, and a plan for the disposal of the finished compost that can not be used in the expected manner due to poor quality or change in market conditions.

(4) Composting Facility Operation Requirements.

(a) Operational records must be maintained during the life of the facility and during the post-closure care period, which include, at a minimum, temperature data and quantity and types of material processed.

(b) All waste materials collected for the purpose of processing must be processed within two years or as provided in the plan of operation.

(c) All materials not destined for processing must be

properly disposed.

(d) Turning frequency of the compost must be sufficient to maintain aerobic conditions and to produce a compost product in the desired time frame.

(e) During the composting process, the compost must:

(i) maintain a temperature between 104 and 149 degrees Fahrenheit (40 and 65 degrees Celsius) for a period of not less than five days; and

(ii) reach a temperature of not less than 131 degrees F (55 degrees C) for a consecutive period of not less than four hours during the five day period.

(f) The following wastes may not be accepted for composting:

(i) asbestos waste;

(ii) Hazardous waste;

(iii) waste containing PCBs; or

(iv) treated wood.

(g) Any composting facility utilizing municipal solid waste, municipal sewage treatment sludge, water treatment sludge, or septage shall require the generator to characterize the material and certify that any material used is nonhazardous, contains no PCB's, and contains no treated wood.

(h) If the composting operation will be utilizing domestic sewage sludge, septage, or municipal solid waste:

(i) compost piles or windrows shall be placed upon a surface such as sealed concrete, asphalt, clay, or an artificial liner underlying the pile or windrow, to prevent contamination of subsurface soil, ground water, or both and to allow collection of run-off and leachate. The liner shall be of sufficient thickness and strength to withstand stresses imposed by compost handling vehicles and the compost itself;

(ii) run-off systems shall be designed, installed and maintained to control and collect the run-off from a 25-year storm event;

(iii) the collected leachate shall be treated in a manner approved by the Executive Secretary; and

(iv) run-on prevention systems shall be designed, constructed, and maintained to divert the maximum flow from a 25-year storm event.

(i) If the Executive Secretary determines that a composting operation, which composts materials other than domestic sewage sludge, septage, or municipal solid waste, is likely to produce a leachate that in combination with the hydrologic, geologic, and climatic factors of the site will present a threat to human health or the environment, the Executive Secretary may require the owner or operator of the composting facility to meet the requirements specified in Subsection R315-312-3(3)(g).

(j) The finished compost must contain no sharp inorganic objects and must be sufficiently stable that it can be stored or applied to land without creating a nuisance, environmental threat, or a hazard to health.

(5) Composting Facility Closure and Post-closure Requirements.

(a) Within 30 days of closure, a composting facility shall:

(i) remove all piles, windrows, and any other compost

material on the composting facility's property;

(ii) remove or revegetate compacted compost material that may be left on the land;

(iii) drain ponds or leachate collection system if any, back-fill, and assure removed contents are properly disposed;

(iv) cover if necessary; and

(v) record with the county recorder as part of the record of title, a plat and statement of fact that the property has been used as a composting facility.

(b) The post-closure care and monitoring shall be for five years and shall consist of:

(i) the maintenance of any monitoring equipment and sampling and testing schedules as required by the Executive Secretary; and

(ii) inspection and maintenance of any cover material.

R315-312-4. Requirements for Use on Land of Sewage Sludge, Woodwaste, and Other Organic Sludge.

(1) Any facility using domestic sewage sludge or septage on land is exempt from the requirements of Section R315-312-4 when the facility has a permit or other approval under the applicable requirements of Rule R317-8 and 40 CFR 503 issued by the Utah Division of Water Quality.

(2) Any facility using organic sludge, other than domestic sewage sludge or septage, or untreated woodwaste on land shall comply with the recycling standards of Section R315-312-2.

(3) Only agricultural or silvicultural sites where organic sludge or untreated woodwaste is demonstrated to have soil conditioning or fertilizer value shall be acceptable for use under this subsection, provided that the sludge or woodwaste is applied as a soil conditioner or fertilizer in accordance with accepted agricultural and silvicultural practice.

(4) A facility using organic sludge or untreated woodwaste on the land in a manner not consistent with the requirements of Section R315-312-4 must meet the standards of Rule R315-307.

KEY: solid waste management, waste disposal
Date of Enactment or Last Substantive Amendment: February 1, 2007
Notice of Continuation: March 14, 2003
Authorizing, and Implemented or Interpreted Law: 19-6-105; 19-6-108

http://www.compostingvermont.org/pdf/Composting_Statute_Overview%20_2_.pdf
Overview of Vermont Law Governing Composting
House Committee on Agriculture

Act 250: Permit Requirements
10 V.S.A. § 6081: Construction of a subdivision or development requires an Act 250 permit.
10 V.S.A. § 6001(3)(A): "Development" means:
§6001(3)(A)(i): Construction of improvements on a tract or tracts of land involving more than 10 acres of land within a radius of five miles of any point on any involved land, for commercial or industrial purposes in a municipality that has adopted permanent zoning and subdivision bylaws.
§6001(3)(A)(ii): The construction of improvements for commercial or industrial purposes on more than one acre of land within a municipality that has not adopted permanent zoning and subdivision bylaws.
§6001(3)(A)(iii): The construction of improvements for commercial or industrial purposes on a tract or tracts of land involving more than one acre of land within a municipality that has adopted permanent zoning and subdivision bylaws, if the municipality in which the proposed project is located has elected by ordinance to have this jurisdiction apply.
§6001(3)(A)(vi): The construction of improvements for commercial, industrial or residential use above the elevation of 2,500 feet.
10 V.S.A. § 6001(3)(D)(i): Development does not mean "the construction of improvements for ***farming***, logging or forestry purposes below the elevation of 2,500 feet."
10 V.S.A. § 6001(22): Farming, for purposes of Act 250, means:
(A) the cultivation or other use of land for growing food, fiber, Christmas trees, maple sap, or horticultural and orchard crops; or
(B) the raising, feeding, or management of livestock, poultry, fish, or bees; or
(C) the operation of greenhouses; or
(D) the production of maple syrup; or
(E) the on-site storage, preparation and sale of agricultural products ***principally produced*** on the farm; or
(F) the on-site production of fuel or power from agricultural products or wastes produced on the farm; or
(G) the raising, feeding, or management of four or more equines owned or boarded by the farmer, including training, showing, and providing instruction and lessons in riding. Environmental Board/Natural Resources Board: Agricultural products principally produced on the farm are those in which "the majority of the weight or volume of the ingredients in the finished product" come from the farm. 51% of the finished product must come from the farm.
Solid Waste
Categorical Certification
10 V.S.A. § 6605c: ANR may, by rule, list certain solid waste categories as eligible for categorical waste certification.
Solid Waste Management Rule § 6-1104: The composting of solid wastes may qualify for a categorical certification if certain siting, application, reporting, and operational requirements are met. A categorical certification shall not exceed five years.
Solid Waste Management Rule § 6-1102(4): "Composting" means the controlled biological decomposition of organic matter through active management to produce a stable humus-rich material.
Solid Waste Management Rule § 6-1102(4)(b) (Siting): A categorical composting facility may not be sited: (1) within 3 feet above seasonal high groundwater, or within 6 feet above bedrock; (2) within 100 feet of Class B Waters as designated by the Nat. Res. Board; (3) within a class I groundwater area; a class I or class II wetland or their associated buffer zones; a class III wetland, unless authorized by ANR; or in a watershed for class A Waters; (4) within an approved public water supply source protection area for a groundwater source serving a public water system unless authorized by ANR; or (5) within 150 feet of a public highway or the property line of adjacent properties.
Solid Waste Management Rule § 6-1102(4)(c) (Application): In order to qualify for a categorical composting certification, the applicant shall submit an application which provides:

(1) Site plan detailing: (A) location of barriers to unauthorized entry; (B) access roads; (C) location of active compost piles; (D) location of storage for incoming waste waiting to be processed, non-permitted wastes delivered to or generated by the facility, and finished compost; (E) location of scales, if any; and (F) facility size.
(2) Management plan detailing: (A) expected volume and type of incoming materials; (B) methods for achieving odor control; (C) methods for achieving noise control; (D) methods for controlling vectors, dusts, and litter; (E) prevention and management methods to control storm water, ponding, and leachate in order to protect groundwater quality; (F) methods to properly screen for potential contaminants in incoming waste; (G) fire prevention and control measures; (H) list of equipment to be used; and (I) hours of operation.
(3) A certificate of service: demonstrating that the applicant has notified all adjoining residences and landowners, and has notified and sent a copy of the application to the municipality where the facility is to be located and, if the facility is proposed to be located on a boundary, to the adjacent municipality by mail about the planned composting operation at least 14 days prior to the submittal of the application.
(4) A letter from the municipality or solid waste district serving the town where the facility is located that the facility is acceptable under the solid waste implementation plan, if any.

Solid Waste

Full Certification

If a composting facility does not qualify for categorical certification, the facility must obtain a full solid waste management facility certification.
10 V.S.A. § 6605(a): No person shall construct, substantially alter, or operate any solid waste management facility without first obtaining certification from the secretary for such facility, site or activity.
10 V.S.A. § 6605(b): Certification for a solid waste management facility, where appropriate, shall: (1) Specify the location of the facility, including limits on its development; (2) Require proper operation and development of the facility in accordance with the engineering plans approved under the certificate; (3) Specify the projected amount and types of waste material to be disposed of at the facility; (4) Specify the type and numbers of suitable pieces of equipment that will operate the facility properly; (5) Contain provisions for air, groundwater and surface water monitoring and provisions for erosion control, capping, landscaping, drainage systems, and monitoring systems for leachate and gas control; (6) Contain such additional conditions, requirements, and restrictions as the secretary may deem necessary to preserve and protect the public health and the air, groundwater and surface water quality.
10 V.S.A. § 6605(d): New landfills placed in operation after July, 1987 shall be lined and shall collect and treat leachate. ANR may waive the requirement of a liner if it determines that the waste components will not be the source of leachate harmful to health or the environment.
10 V.S.A. § 6605(f): On or before filing any certification or permit application for a facility, the applicant shall notify the municipality where the facility is proposed to be or is located, and any adjacent Vermont municipality if the land is located on a boundary.
Solid Waste Management Rules: The Vermont Solid Waste Management Rules includes additional requirements for full solid waste management facility certification.. including:
Solid Waste Management Rules Subchapter 3: Application requirements
Solid Waste Management Rules Subchapter 4: Facility siting requirements
Solid Waste Management Rules: Facility design requirements
Solid Waste Management Rules: Operation requirements
Solid Waste Management Rules: Financial responsibility requirements
Solid Waste Management Rules: Closure requirements

Water Quality

Direct Discharge

Federal Clean Water Act 33 U.S.C. § 1342: A person must obtain a national pollutant discharge elimination system permit issued by the U.S. EPA or a delegated state prior to discharging a pollutant from a point source into the navigable waters of the United States.
Federal Clean Water Act, 33 U.S.C. § 1362(14): “Point source” means any discernible, confined and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operation, or vessel, or other floating craft, from which pollutants are or may be discharged. The term does not include agricultural stormwater discharges and return flows from irrigated agriculture.

10 V.S.A. § 1259(a): No person shall discharge any waste, substance or material into waters of the state, nor shall any person discharge any waste, substance or material into an injection well … without first obtaining a permit for that discharge from the secretary.
10 V.S.A. § 1259(c): No person shall cause a direct discharge into Class A waters of any wastes that, prior to treatment, contained organisms pathogenic to human beings. Except within a waste management zone, no person shall cause a direct discharge into Class B waters of any wastes that prior to treatment contained organisms pathogenic to human beings.
10 V.S.A. § 1259(d): No person shall cause a discharge of wastes into Class A waters.
10 V.S.A. § 1259(f): The prohibitions in 10 V.S.A. §§1259(c) and (d) shall not regulate AAPs as defined by the secretary of agriculture; nor shall these provisions regulate discharges from concentrated animal feeding operations that require a permit under 10 V.S.A. § 1263.
AAPs § 4.01(a): Agricultural operations shall not create any direct discharge of wastes into the surface waters of the state from a discrete conveyance such as a pipe, ditch, or conduit without a permit from ANR.
AAPs § 4.01(b): Barnyards, manure storage areas, animal holding areas and production areas shall be managed or controlled to prevent runoff of wastes to adjoining waters, groundwater or across property boundaries.
AAPs § 4.05(a): All agricultural wastes including chemicals, petroleum products, containers, and carcasses shall be properly stored, handled and disposed of, so as to minimize adverse water quality impacts.
AAPs § 3.2: Agricultural practices that are governed by these regulations include . . . (i) The onsite storage, preparation and sale of agricultural products principally produced on the farm.

Water Quality

Stormwater Multi-Sector General Permit
Federal Clean Water Act, 33 U.S.C. § 1342(p)(2)(C): A permit shall be required for discharges of stormwater associated with industrial activity.
• Coverage under this permit, known as the multi-sector general permit (MSGP), is required by private and municipal industries identified on the MSGP Standard Industrial Classification (SIC) code list.
• The permit requires facilities to examine potential sources of pollution, implement measures to reduce the risk of stormwater contamination, and test stormwater discharges for sources of pollution.
• Composting facilities are required to seek coverage under the MSGP, unless the facility is primarily an agricultural facility. Neither the federal Clean Water Act nor state law define when a facility is “primarily an agricultural facility.”

Water Quality

Indirect Discharges
10 V.S.A. § 1259(e): No person shall cause any new or increased indirect discharge of wastes into Class B waters without a permit under section 1263.
10 V.S.A. § 1251(3): (3) "Discharge" means the placing, depositing or emission of any wastes, directly or indirectly, into an injection well or into the waters of the state.
10 V.S.A. § 1251(15): "Indirect discharge" means any discharge to groundwater, whether subsurface, land-based or otherwise.
• Composting facilities with leachate lagoons or other potential discharges to groundwater may be required to obtain an indirect discharge permit.

Water Quality

Groundwater
AAPs § 4.05(c): Animal mortalities composted on farm property shall be sited so as to be: (i) at least 100 feet from property lines, wells and surface waters; (ii) not on land subject to annual overflow from adjoining surface waters; and (iii) at least 300 feet from neighboring domiciles.
AAPs § 4.08: (a) Farm operations shall be conducted so that the concentration of wastes in groundwater caused by agricultural operations do not reach or exceed the primary or secondary groundwater quality enforcement standards. . . (b) Farm operations shall be conducted with the goal to reduce the concentration of wastes in groundwater to the preventive action levels (PALs) of the primary or secondary groundwater quality standards identified by Appendix One of the Groundwater Protection Rule and Strategy when monitoring indicates the presence of these wastes in groundwater that exceed the enforcement standard.

Water Quality

Underground Injection Control

• The federal Safe Drinking Water Act requires states to develop an underground injection control (UIC) program to control the impact of underground injections on drinking water
• Vermont adopted an underground injection control program by rule in 1982.
10 V.S.A. § 1259(a): No person shall discharge any waste, substance or material into waters of the state, nor shall any person discharge any waste, substance or material into an injection well … without first obtaining a permit for that discharge from the secretary.
UIC Rules § 13.UIC.5: All underground injections are prohibited unless permitted by ANR.
UIC Rules § 13.UIC.3: Underground injection means the subsurface implacement of waste or fluids through an injection well.
UIC Rules § 13.UIC.3: Waste means effluent, sewage, or any substance or material, liquid, gaseous, solid or radioactive, including heated liquids, whether or not harmful or deleterious to groundwater.
UIC Rules § 13.UIC.3: Injection well means any opening i the ground used as a means of discharging waste. Injection well does not mean a surface impoundment, land treatment facility, leachfield, sanitary landfill, or subsurface facility which has a horizontal dimension greater than its vertical dimension, provided that the discharge is permitted by ANR under other authority and does not cause a violation of the drinking water standards.

Water Quality

ANR and AAFM Memorandum on Understanding
10 V.S.A. § 1259: Requires ANR and the Agency of Agriculture, Food and Markets (AAFM) to develop a memorandum of understanding (MOU) regarding implementation and enforcement of the state agricultural non-point source pollution control program. This memorandum provides that the AAFM is responsible for the implementation and enforcement of agricultural components of the state's non-point source pollution reduction program.
6 V.S.A. § 4810 and 10 V.S.A. § 1259: Require ANR and the AAFM to develop a MOU regarding the implementation and enforcement of the requirements of the federal concentrated animal feeding operation program and the state agricultural water quality program for large, medium, and small farms.

Virginia

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9VAC20-80-330. Compost facilities.

A. General.

1. The standards in this section shall apply to the siting, design and construction, and operation of facilities producing compost from refuse or combinations of refuse and sludges or animal manures.

a. Composting facilities may be classified in accordance with the general process used. Facilities that employ the enclosed vessel method are called Type A ("confined") compost facilities. Type B facilities are those that employ the windrow or aerated static pile method. If the process requires materials to be stabilized or cured in piles such facilities are also classified as Type B facilities even if the composting is performed in an enclosed vessel. The only composting processes that may be employed are those with prior operational performance in the United States. Any other proposed composting process shall conform to the standards contained in 9VAC20-80-470 and will require an experimental solid waste management facility permit.

NOTE: Finished compost that meets the requirements of this part is not regulated as a solid waste.

b. Use of solid waste containing hazardous waste, regulated medical waste, or nonbiodegradable waste is prohibited.

2. The standards contained in this section are not applicable to facilities that operate under a permit-by-rule issued under Vegetative Waste Management and Yard Waste Composting Regulations (9VAC20-101) and are in full compliance with that chapter.

3. The standards contained in this section are not applicable to composting units exempt under 9VAC20-80-60 D 2 or D 3.

4. The feedstocks for composting are classified on the basis of the type of waste used in the composting process. The categories of feedstocks are as follows:

a. Category I -- Pre-consumer, plant or plant-derived materials such as:

(1) Agriculture crop residues including but not limited to harvesting residuals, straw, and cornstalks;

(2) Livestock feed including but not limited to hay, grain, silage, cottonseed meal, soybean meal;

(3) Nonfood agricultural processing waste including but not limited to cotton gin trash, wool carding residue, field corn cobs;

(4) Source-separated pre-consumer food wastes including but not limited to wholesale and retail market residuals (e.g., overripe, damaged, or otherwise rejected fruit or vegetables) and institutional kitchen culls;

(5) Food processing wastes including culls, peelings, hulls, stems, pits, seed, pulp, shucks, nut shells, apple pomace, corn cobs, cranberry filter cake, olive husks, potato tops, cocoa shells, fruit and vegetable processing waste, rejected products, and bakery wastes; and

(6) Source-separated clean waste paper.

b. Category II -- Animal-derived waste material such as:

(1) Dairy and fish processing wastes including but not limited to eggs, spoiled milk, cheese, curd, and yogurt, fish gurry and racks, clam bellies, fish shells, fish processing sludge, fish breading crumbs, mussel, crab, lobster, and shrimp wastes; and

(2) Rendered animals.

c. Category I -- Animal and post-consumer food wastes with pathogen potential such as:

(1) Source-separated wastes including but not limited to restaurant waste, institutional kitchen wastes, food preparation wastes, prepared but unserved foods, plate scrapings; and

(2) Animal manures including but not limited to spoiled stable straw bedding, livestock feedlot, holding pen and cage scrapings, dairy manure semi-solids, poultry litter and manure.

d. Category IV -- Other wastes such as:

(1) Non-rendered animal meat waste including but not limited to animal carcasses, slaughterhouse waste, paunch manure;

(2) Mixed non-source separated organic wastes including but not limited to municipal solid waste; and

(3) Sewage sludge.

B. Siting.

1. Solid waste composting facilities shall not be sited or constructed in areas subject to base

floods.

2. No facility shall be closer than 50 feet to any regularly flowing stream.

3. Composting facilities shall be adjacent to or have direct access to roads which are paved or surfaced and capable of withstanding anticipated load limits.

4. A facility shall not be located within 200 feet of any residential area, a health care facility, school, recreational park area, or similar type public institution.

5. Sites shall allow for sufficient room to minimize traffic congestion and allow for safe operation.

6. No composting unit shall extend closer than 50 feet to any property line.

7. Acceptable sites must have sufficient area and terrain to allow for proper management of leachate.

8. Type B facilities shall not be located in areas which are geologically unstable or where the site topography is heavily dissected.

9. A Type B facility shall not be located in any area where the seasonal high water table lies within two feet of the ground surface.

C. Design/construction.

1. Facilities for the composting of municipal solid waste shall be provided with covered areas for receiving, segregation, and grading of municipal solid waste.

2. Where Category IV material is processed, or where more than 700 tons/quarter of Category I, II, or III material is processed, by a compost facility, all receiving, mixing, composting, curing, screening, and storing operations shall be provided with one of the following:

a. An asphalt or concrete area that drains directly to a wastewater storage, treatment, or disposal facility; or

b. An asphalt, or concrete, and diked or bermed area to prevent entry of run-on or escape of run-off, leachate, or other liquids, and a sump with either a gravity discharge or an adequately sized pump located at the low point of the hard-surfaced area to convey liquids to a wastewater treatment, disposal or holding facility, discharged under a VPDES permit issued pursuant to the State Water Control Board regulation 9VAC25-31 or recirculated within the composting process; or

c. A lime stabilized area may be substituted for the asphalt or concrete specified under subdivision 2 b of this subsection. The lime stabilized clay/soil area must be a minimum of six

inches thick and have a lab-tested permeability of $1x10^{-7}$ cm/sec.

3. Area and appropriate equipment shall be provided to segregate nonbiodegradable or otherwise undesirable components from the municipal solid waste to be processed.

4. For Type B facilities, sound engineering controls shall be incorporated into design of facilities located on sites with:

a. Springs, seeps, and other ground water intrusions;

b. Gas, water, or sewage lines under the active areas; or

c. Electrical transmission lines above or below the active areas.

5. Roads serving the unloading, composting, and storage areas shall be of all-weather construction.

6. Auxiliary power, standby equipment, or contingency arrangements shall be required to ensure continuity of composting operations.

7. For uncovered sites, calculations for sizing of surface water control features will be based on a rainfall intensity of one-hour duration and a 10-year return period.

D. Operations.

1. Noncompostable or other undesirable solid waste shall be segregated from the material to be composted. Solid waste which is not composted, salvaged, reused, or sold must be disposed of at an appropriately permitted solid waste management facility.

2. Product testing and standards. Products will continue to be considered as solid wastes until the testing indicates that they attain appropriate standards. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity and shall be conducted in a manner consistent with SW-846 and other applicable standards. The minimum number of samples that shall be collected and analyzed is shown in the table below. Samples to be analyzed for metals shall be composited prior to the analysis.

Minimum Frequency for Metals Analysis		
Average compost produced (dry tons per day)	Frequency of Analyses	Number of Samples
Less than 1	Annually	12 (1 sample/month composited for metals)
1 to 10	Quarterly	3 (1 sample/month composited for metals)

over 10	Monthly	4 (1 sample/week composited for metals)

a. Compost stability. All finished products will be tested for compost stability using one of the methods listed below.

(1) Temperature decline to near ambient conditions when not the result of improper management of the composting process. Composting records shall indicate appropriate schedules for turning, monitoring of moisture within the required range, and an appropriate mix of composting feedstocks.

(2) Reheat potential using the Dewar Compost Self-Heating Flask. The results must indicate a stable product. Temperature rise above ambient must not exceed 10°C for stable compost. Very stable compost will not exceed 10°C above ambient.

(3) Specific oxygen uptake. To be classified as stable the product must have a specific oxygen uptake rate of less than 0.1 milligrams per gram of dry solids per hour.

(4) Solvita™ Compost Maturity Test. To be classified as stable the product must exhibit color equal or greater than six.

(5) Carbon dioxide evolution. To be classified as stable the product must not evolve more than 1,000 milligrams of carbon dioxide per liter per day.

b. Pathogens. In addition to testing required by subdivision 2 a of this subsection, finished products produced from Category III and IV materials will be tested for the presence of the following organisms using the methods indicated below.

(1) Parasites. No viable Ascaris ova shall be detected by an acceptable laboratory method with a minimum detection limit of 0.5 viable ova per gram of dry solids or less. Ascaris will be considered to be representative of all parasites, i.e., helminth ova and protozoan cysts.

(2) Bacterial pathogens. Salmonella will be considered representative of all bacterial pathogens capable of regrowth. Median of all samples shall be less than 1 MPN (most probable number) per gram of dry solids. No more than 10% of samples shall exceed 10 MPN per gram of dry solids. No single sample shall exceed 100 MPN per gram of dry solids.

(3) Fecal coliform. Although the coliform group is not generally considered to be pathogenic, their destruction is indicative of good composting practice. Median of all samples shall be less than 10 MPN fecal coliform per gram of dry solids. Specifically, less than 1,000 MPN fecal coliform per gram of dry solids shall be found in any sample when incubated for 0.5 hr at

70°C, three days at 55°C, or five days at 53°C.

(4) Other test methods, or facility operating standards as approved by the director.

c. Metals. In addition to the requirements contained in subdivisions 2 a and 2 b of this subsection, all finished products produced from Category IV materials shall be analyzed for the metals shown below. The concentration of contaminants shall not exceed the following levels:

Metal	Concentration, mg/kg dry solids
Arsenic	41
Cadmium	21
Copper	1500
Lead	300
Mercury	17
Molybdenum	54
Nickel	420
Selenium	28
Zinc	2,800

3. Designed buffer zones shall be maintained.

4. The owner or operator shall prepare an operation plan which shall include as a minimum:

a. The description of types of wastes that will be managed at the facility. This description will be sufficient to properly categorize the compost feedstocks in accordance with subdivision A 4 of this section. If the specific materials are not listed in that section, a discussion will be prepared which compares the materials that the facility will receive with the materials listed in the appropriate feedstock category and justifies the categorization of the proposed feedstock. For each type of material an approximate C:N ratio will be provided. The expected quantity of any bulking agent or amendment will be provided (if applicable); and any expected recycle of bulking agent or compost. The plan shall include the annual solid waste input, the service area population (both present and projected if applicable), and any seasonal variations in the solid waste type and quantity;

b. A discussion of the composting process including:

(1) For Type A compost facilities the following will be provided:

(a) A copy of the manufacturer's operating manual, and drawings and specifications of the

composting unit will be provided.

(b) A discussion of the unit's requirements for power, water supply, and wastewater removal, and the steps taken to accommodate these requirements.

(2) For Type B compost facilities the following will be provided:

(a) A description of the configuration of the composting process including compost pile sizing, and orientation, provisions for water supply, provisions for wastewater disposal, and an equipment list.

(b) A discussion of procedures and frequency for moisture, and temperature monitoring, and aeration.

(c) A discussion of pile formation, and feedstock proportioning and feedstock preparation.

c. A discussion of the method and frequency of final product testing in accordance with subdivision 2 of this subsection will be provided;

d. A schedule of operation, including the days and hours that the facility will be open, preparations before opening, and procedures followed after closing for the day;

e. Anticipated daily traffic flow to and from the facility, including the number of trips by private or public collection vehicles;

f. The procedure for unloading trucks (including frequency, rate, and method);

g. A contingency plan detailing corrective or remedial action to be taken in the event of equipment breakdown; air pollution (odors); unacceptable waste delivered to the facility; spills; and undesirable conditions such as fires, dust, noise, vectors, and unusual traffic conditions;

h. Special precautions or procedures for operation during wind, heavy rain, snow, and freezing conditions;

i. A description of the ultimate use for the finished compost, method for removal from the site, and a plan for use or disposal of finished compost that cannot be used in the expected manner due to poor quality or change in market conditions;

j. A discussion of inspections in accordance with subdivision 5 c of this subsection; and

k. A discussion of records to be maintained in accordance with subdivision 6 of this subsection.

5. Maintenance.

Virginia

a. Facility components shall be maintained and operated in accordance with the permit and intended use of the facility.

b. Adequate numbers, types and sizes of properly maintained equipment shall be available at the facility during all hours of operation to prevent curtailment of operations because of equipment failure except under extraordinary conditions beyond the control of the facility's owner or operator.

c. Self inspection. The facility owner or operator shall monitor and inspect the facility for malfunctions, deteriorations, operator errors, and discharges that may cause a release to the environment or a threat to human health. The facility owner or operator shall promptly remedy any deterioration or malfunction of equipment or structures or any other problems revealed by the inspections to ensure that no environmental or human health hazard develops. Where a hazard is imminent or has already occurred, remedial action shall be taken immediately.

6. Recordkeeping.

a. Operational records shall be maintained at the facility; these records shall include, at the minimum, temperature data and quantity of materials processed.

b. The facility owner or operator shall retain records of all unauthorized solid waste accepted identifying the waste and its final disposition. Such records shall include the date solid waste was received, the type of solid waste received, the date of disposal, the disposal method and location.

c. The facility owner or operator shall record self-inspections in an inspection log. These records shall be retained for at least three years from the date of inspection. They must include the date and time of the inspection, the name of the inspector, a description of the inspection including the identity of specific equipment and structures inspected, the observations recorded, and the date and nature of any remedial actions implemented or repairs made as a result of the inspection.

d. The facility owner or operator shall retain records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation; and copies of all reports required by, or by a permit issued under, this part) for a period of at least three years from the date of the sample analysis, measurement, report or application. Records for monitoring information shall include: the date,

exact place, and time of sampling or measurements; the name of the individual who performed the sampling and measurement; the date analyses were performed; the name of the individual who performed the analyses; the analytical techniques or methods used; and the result of such analyses. Additional information relating to the analysis, including records of internal laboratory quality assurance and control, shall be made available to the department at its request.

E. Closure.

1. Closure standards. The owner or operator shall close his facility in a manner that minimizes the need for further maintenance, and controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, the post-closure escape of uncontrolled leachate, surface runoff, or waste decomposition products to the ground water, surface water, or to the atmosphere.

a. At closure, the owner or operator shall remove or decontaminate all waste residues, contaminated containment system components (liners, etc.), contaminated subsoils, and structures and equipment contaminated with waste and leachate.

b. If, after removing or decontaminating all residues and making all reasonable efforts to effect removal or decontamination of contaminated components, subsoils, structures, and equipment as required in subdivision 1 a of this subsection, the owner or operator finds that not all contaminated subsoils can be practicably removed or decontaminated, he shall install a ground water monitoring system, close the facility and perform post-closure care in accordance with the ground water monitoring, closure and post-closure care requirements of Part V (9VAC20-80-240 et seq.) of this chapter.

2. Closure plan and amendment of plan.

a. The owner or operator of a compost facility shall have a written closure plan. This plan shall identify the steps necessary to completely close the facility at its full operation under the permit conditions. The closure plan shall include, at least a schedule for final closure including, as a minimum, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure.

b. The owner or operator may amend his closure plan at any time during the active life of the

facility. The owner or operator shall so amend his plan any time changes in operating plans or facility design affects the closure plan. The amended closure plan shall be placed in the operating record.

c. The owner or operator shall notify the director whenever an amended closure plan has been prepared and placed in the operating record.

d. Prior to beginning closure of each solid waste management unit, the owner or operator shall notify the director of the intent to close.

3. Time allowed for closure. The owner or operator shall complete closure activities in accordance with the closure plan and within six months after receiving the final volume of wastes. The director may approve a longer closure period if the owner or operator can demonstrate that the required or planned closure activities will, of necessity, take longer than six months to complete; and that he has taken all steps to eliminate any significant threat to human health and the environment from the unclosed but inactive facility.

4. The owner or operator shall post one sign notifying all persons of the closing, and providing a notice prohibiting further receipt of waste materials. Further, suitable barriers shall be installed at former accesses to prevent new waste from being delivered.

5. Inspection. The department shall inspect all solid waste management facilities that have been closed to determine if the closing is complete and adequate. It shall notify the owner of a closed facility, in writing, if the closure is satisfactory, and shall order necessary construction or such other steps as may be necessary to bring unsatisfactory sites into compliance with this chapter.

Statutory Authority

§ 10.1-1402 of the Code of Virginia, 42 USC § 6941 et seq., and 40 CFR Part 258.

Historical Notes

Derived from VR672-20-10 § 6.1, eff. March 15, 1993; amended, Virginia Register Volume 17, Issue 16A, eff. May 23, 2001; Volume 19, Issue 25, eff. September 24, 2003.

Volume 14 Issue 6

TITLE 9. ENVIRONMENT

VIRGINIA WASTE MANAGEMENT BOARD

9 VAC 20-100-10 et seq. Yard Waste Composting Facility Regulations (REPEALED).

9 VAC 20-101-10 et seq. Vegetative Waste Management and Yard Waste Composting Regulations.

Statutory Authority: §§ 10.1-1402 and 10.1-1408.1 of the Code of Virginia.

Effective Date: January 7, 1998.

CHAPTER 101.
VEGETATIVE WASTE MANAGEMENT AND YARD WASTE COMPOSTING REGULATIONS.

PART I.
DEFINITIONS.

9 VAC 20-101-10. Definitions.

The following words and terms when used in this chapter shall have the following meanings unless the context clearly indicates otherwise. Chapter 14 (§ 10.1-1400 et seq.) of Title 10.1 of the Code of Virginia defines words and terms that supplement those in this chapter. The Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 et seq., define additional words and terms that supplement those in the statute and this chapter. When the statute, as cited, and the solid waste management regulations, as cited, define a word or term differently, the definition of the statute is controlling.

"Agricultural operation" means any operation devoted to the bona fide production of crops, animals, or fowl, including but not limited to the production of fruits and vegetables of all kinds; meat, dairy, and poultry products; nuts, tobacco, nursery and floral products; and the production and harvest of products from silviculture activity.

"Board" means the Virginia Waste Management Board.

"Building" means an enclosed structure which has no open side.

"Clean wood" means uncontaminated natural or untreated wood. Clean wood includes but is not limited to byproducts of harvesting activities conducted for forest management or commercial logging, or mill residues consisting of bark, chips, edgings, sawdust, shavings or slabs. It does not include wood that has been treated, adulterated, or chemically changed in some way; treated with glues, binders, or resins; or painted, stained or coated.

"Compost" means a stabilized organic product produced by a controlled aerobic decomposition process in such a manner that the product can be handled, stored, or applied to the land without adversely affecting public health or the environment.

"Composting" means the manipulation of the natural aerobic process of decomposition of organic materials to increase the rate of decomposition.

"Decomposed vegetative waste" means a stabilized organic product produced from vegetative waste by a controlled natural decay process in such a manner that the product can be handled, stored, or applied to the land without adversely affecting public health or the environment.

"Decomposition of vegetative waste" means a controlled natural process, active or passive, which results in the decay and chemical breakdown of vegetative waste.

"Department" means the Department of Environmental Quality.

"Director" means the Director of the Department of Environmental Quality.

"Disclosure statement" means a sworn statement or affirmation, in such form as may be required by the director, which includes:

1. The full name, business address, and social security number of all key personnel;

2. The full name and business address of any entity, other than a natural person, that collects, transports, treats, stores, or disposes of solid waste or hazardous waste in which any key personnel holds an equity interest of 5.0% or more;

3. A description of the business experience of all key personnel listed in the disclosure statement;

4. A listing of all permits or licenses required for the collection, transportation, treatment, storage, or disposal of solid waste or hazardous waste issued to or held by any key personnel within the past 10 years;

5. A listing and explanation of any notices of violation, prosecutions, administrative orders (whether by consent or otherwise), license or permit suspensions or revocations or enforcement actions of any sort by any state, federal or local authority, within the past 10 years, which are pending or have concluded with a finding of violation or entry of a consent agreement, regarding an allegation of civil or criminal violation of any law, regulation or requirement relating to the collection, transportation, treatment, storage, or disposal of solid waste or hazardous waste by any key personnel, and an itemized list of all convictions within 10 years of key personnel of any of the following crimes punishable as felonies under the laws of the Commonwealth or the equivalent thereof under the laws of any other jurisdiction: murder; kidnapping; gambling; robbery; bribery; extortion; criminal usury; arson; burglary; theft and related crimes; forgery and fraudulent practices; fraud in the offering, sale, or purchase of securities; alteration of motor vehicle identification numbers; unlawful manufacture, purchase, use or transfer of firearms; unlawful possession or use of destructive devices or explosives; violation of the Drug Control Act, Chapter 34 (§ 54.1-3400 et seq.) of Title 54.1 of the Code of Virginia; racketeering; or violation of antitrust laws;

6. A listing of all agencies outside the Commonwealth which have regulatory responsibility over the applicant or have issued any environmental permit or license to the applicant within the past 10 years in connection with the applicant's collection, transportation, treatment, storage or disposal of solid waste or hazardous waste;

7. Any other information about the applicant and the key personnel that the director may require that reasonably relates to the qualifications and ability of the key personnel or the applicant to lawfully and competently operate a solid waste management facility in Virginia; and

8. The full name and business address of any member of the local governing body or planning commission in which the solid waste management facility is located or proposed to be located, who holds an equity interest in the facility.

"Equity" means both legal and equitable interests.

"Key personnel" means the applicant itself and any person employed by the applicant in a managerial capacity, or empowered to make discretionary decisions, with respect to the solid waste or hazardous waste operations of the applicant in Virginia, but shall not include employees exclusively engaged in the physical or mechanical collection, transportation, treatment, storage, or disposal of solid or hazardous waste and such other employees as the director may designate by regulation. If the applicant has not previously conducted solid waste or hazardous waste operations in Virginia, the term also includes any officer, director, partner of the applicant, or any holder of 5.0% or more of the equity or debt of the applicant. If any holder of 5.0% or more of the equity or debt of the applicant or of any key personnel is not a natural person, the term includes all key personnel of that entity, provided that where such entity is a chartered lending institution or a reporting company under the Securities Exchange Act of 1934 (15 USC § 78a et seq.), the term does not include key personnel of such entity. Provided further that the term means the chief executive officer of any agency of the United States or of any agency or political subdivision of the Commonwealth, and all key personnel of any person, other than a natural person, that operates a landfill or other facility for the disposal, treatment, or storage of nonhazardous solid waste under contract with or for one of those governmental entities.

"Land clearing activities" means the removal of flora from a parcel of land.

"Land clearing debris" means vegetative waste resulting from land clearing activities.

"Landscape maintenance" means the care of lawns, shrubbery, and vines, and includes the pruning of trees.

"Leachate" means a liquid that has passed through or emerged from solid waste and contains soluble, suspended or miscible materials from such waste. Leachate and any material with which it is mixed is solid waste; except that leachate that is pumped from a collection tank for transportation to disposal in an off-site facility is regulated as septage, and leachate discharged into a wastewater collection system is regulated as industrial waste water.

"Mulch" means woody waste consisting of stumps, trees, limbs, branches, bark, leaves and other clean wood waste which has undergone size reduction by grinding, shredding, or chipping, and is distributed to the general public for landscaping purposes or other horticultural uses except composting as defined and regulated under this chapter or the Solid Waste Management Regulations, 9 VAC 20-80-10 et seq.

"Off-site" means any site that does not meet the definition of on-site as defined in this part.

"On-site" means the same or geographically contiguous property, which may be divided by public or private right-of-way, provided the entrance and exit to the facility are controlled by the owner or the operator of the facility. Noncontiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access is also considered on-site property.

"Open dump" means a site on which any solid waste is placed, discharged, deposited, injected, dumped, or spilled so as to create a nuisance or present a threat of a release of harmful substances into the environment or present a hazard to human health.

"Owner of real property" means a person, persons or legal entity who holds title to a parcel of real property, and, for the purpose of this chapter, any person, persons or legal entity who holds more than 5.0% of the stock or substance of a company or corporation that holds title to a parcel of real property.

"Permit by rule" means provisions of the regulations stating that a facility or activity is deemed to have a permit if it meets the requirements of the provision.

"Putrescible waste" means solid waste which contains organic material capable of being decomposed by micro-organisms and causes odors.

"Runoff" means any rainwater, wastewater, leachate, or other liquid that drains over land from any part of the solid waste management facility.

"Runon" means any rainwater, wastewater, leachate, or other liquid that drains over land onto any part of the solid waste management facility.

"Solid waste management facility" means a site used for planned treating, long term storage, or disposing of solid waste. A facility may consist of several treatment, storage, or disposal units. For the purposes of this chapter only, "long term storage" shall be deemed to occur if during any period of 30 consecutive calendar days the site was not free of solid waste.

“Structural roadway prism” means the line of repose from the shoulder break to the shoulder break of the roadway, usually a 1:1 slope.

"Vegetative waste" means decomposable materials generated by yard and lawn care or land clearing activities and includes, but is not limited to, leaves, grass trimmings, woody wastes such as shrub and tree prunings, bark, limbs, roots, and stumps.

"Vegetative waste management facility" means a solid waste management facility that manages vegetative waste.

"Yard waste" means decomposable waste materials generated by yard and lawn care and includes leaves, grass trimmings, brush, wood chips, and shrub and tree trimmings. Yard waste shall not include roots or stumps that exceed six inches in diameter. (Note: Yard wastes are also vegetative waste; however, the terms are not interchangeable because vegetative wastes may include wastes that are not yard wastes.)

"Yard waste compost" means a stabilized organic product produced from yard waste by a controlled aerobic decomposition process in such a manner that the product can be handled, stored, and/or applied to the land so that it does not pose a present or potential hazard to human health or the environment.

"Yard waste composting" means the controlled aerobic yard waste decomposition process by which yard waste compost is produced.

"Yard waste composting facility" means an engineered facility for composting of yard waste which is so located, designed, constructed, and operated to isolate, process, and manage the yard waste and yard waste compost so that it does not pose a present or potential hazard to human health or the environment.

PART II.
PURPOSE AND APPLICABILITY.

9 VAC 20-101-20. Purpose.

The purpose of these regulations is to establish appropriate standards for siting, design, construction, operation and closure, and expedited permitting procedures pertaining to certain vegetative waste management facilities, including those for yard waste composting. Further, these regulations provide reasonable exemptions from the permitting requirements contained in the Virginia Solid Waste Management Regulations (9 VAC 20-80-10 et seq.), both procedural and substantive, in order to encourage the development of vegetative waste management and yard waste composting facilities as required by subsections I, K, and L of § 10.1-1408.1 of the Code of Virginia.

9 VAC 20-101-30. Applicability.

A. The Virginia Waste Management Act (Chapter 14 (§ 10.1-1400 et seq.) of Title 10.1 of the Code of Virginia) prohibits any person from operating a facility for the treatment, storage, or disposal of nonhazardous solid waste without a permit from the director. Except as provided in Part III (9 VAC 20-101-60 et seq.), vegetative waste is nonhazardous solid waste, and facilities that treat, store or dispose of vegetative waste shall not be operated by any person who does not hold a permit for its operation from the director. All vegetative waste management facilities may be permitted as solid waste management facilities under the Solid Waste Management Regulations, 9 VAC 20-80-10 et seq. The regulations herein provide alternate, abbreviated requirements for obtaining a permit from the director, and they apply to vegetative waste management facilities provided:

1. Except as provided in Part IV (9 VAC 20-101-110 et seq.), the vegetative wastes are not combined with other refuse, sludges, animal manures, or other solid wastes controlled by the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.), and

2. Except as provided in Part IV, the vegetative waste is not managed atop a partially or fully closed solid waste disposal unit at a solid waste disposal facility.

B. Persons who do not meet the conditions of subsection A of this section and are not otherwise exempted under Part III (9 VAC 20-101-60 et seq.) shall manage their waste in accordance with all provisions of the Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 et seq.

9 VAC 20-101-40. Consequence of failure to comply with provisions.

In the event that an owner or operator of an agricultural operation or vegetative waste management facility operating under these exemptions violates any provisions of that exemption, the owner or operator shall lose that exemption and become subject to all the requirements of this chapter and applicable requirements of the Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 et seq.

9 VAC 20-101-50. Relationship to other regulations.

A. This chapter supersedes, replaces and repeals all existing previous regulations of the board adopted as the Yard Waste Composting Facility Regulations (9 VAC 20-100-10 et seq.).

B. This chapter does not affect the Virginia Solid Waste Management Regulations (9 VAC 20-80-10 et seq.), except that persons subject to and in compliance with this chapter are exempt from the Solid Waste Management Regulations only for those activities covered by this chapter.

C. Persons subject to this chapter are subject to applicable provisions of the Financial Assurance Regulations of Solid Waste Facilities (9 VAC 20-70-10 et seq.).

D. All vegetative waste management facilities that exist on January 7, 1998, and are operated under a permit by rule under the provisions of the Yard Waste Composting Facility Regulations (9 VAC 20-100-10 et seq.) may continue to operate under the terms of that permit by rule until its closure plan is amended, terminated, or the owner or operator otherwise loses permit by rule status.

E. Section 10.1-1408.2 of the Code of Virginia requires certain employees of solid waste management facilities be certified by the Board for Waste Management Facility Operators and that certain facilities be under the direct supervision of an operator certified by the Board for Waste Management Facility Operators. Nothing in this chapter shall be interpreted so as to conflict with the statute. The Virginia Waste Management Board interprets the statute to apply only to permitted facilities.

F. Within three years after January 7, 1998, the department shall perform analysis on this chapter and provide the Virginia Waste Management Board with a report on the results. The analysis shall include:

1. The purpose and need for the chapter;

2. Alternatives which would achieve the stated purpose of this chapter in a less burdensome and intrusive manner;

3. An assessment of the effectiveness of this chapter;

4. The results of a regulatory review of current state and federal statutory and regulatory requirements, including identification and justification of this chapter's requirements which exceed federal requirements; and

5. The results of a review as to whether this chapter is clearly written and easily understandable by affected parties.

Upon review of the department's analysis, the Virginia Waste Management Board shall confirm the need to:

1. Continue this chapter without amendment;

2. Repeal this chapter; or

3. Amend this chapter.

The Virginia Waste Management Board will authorize the department to initiate the applicable regulatory process and to carry out the decision of the Virginia Waste Management Board if amendment or repeal of this chapter is warranted.

PART III.
EXEMPTIONS FOR SPECIAL VEGETATIVE WASTE MANAGEMENT FACILITIES TO THESE REGULATIONS OR TO THE REQUIREMENT TO HAVE A PERMIT.

9 VAC 20-101-60. General exemptions.

The Code of Virginia and previous regulations adopted by the board included exemptions from some requirements of the board regarding specified activities involving vegetative waste. Nothing contained in these Vegetative Waste Management and Yard Waste Composting Regulations shall be construed to interfere with those exemptions or add requirements or conditions to those existing exemptions. These exemptions include:

1. Solid waste management practices that involve only the placing of stumps and other land clearing debris from agricultural or forestal activities at the site of the clearing that do not receive waste from off-site and that do not create an open dump, hazard or public nuisance are exempt from all requirements of this chapter and of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.).

2. Solid waste management practices that involve only the on-site placing of solid waste from mineral mining activities at the site of those activities and in compliance with a permit issued by the Department of Mines, Minerals and Energy, that do not include any municipal solid waste, are accomplished in an environmentally sound manner, and that do not create an open dump, hazard or public nuisance are exempt from all requirements of this chapter and of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.).

3. Owners or operators of agricultural operations or owners of the real property or those authorized by owners of the real property who compost only the vegetative wastes and yard waste generated on said property shall be exempt from all other provisions of this chapter and from all requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.) as applied to the composting activity providing that:

a. All decomposed vegetative waste and compost produced is utilized on said property;

b. No vegetative waste or other waste material generated from sources other than said property is received;

c. All applicable standards of local ordinances that govern or concern vegetative waste handling, composting, storage or disposal are satisfied; and

d. They pose no nuisance or present or potential threat to human health or the environment.

4. Owners or operators of agricultural operational activities which accept yard wastes generated off-site shall be exempt from all other provisions of this chapter and from all requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.) as applied to the composting activities providing that:

a. The total time for the composting process and storage of material that is being composted or has been composted shall not exceed 18 months prior to its field application or sale as a horticultural or agricultural product;

b. No waste material other than yard waste is received;

c. The total amount of yard waste received from off-site never exceeds 6,000 cubic yards in any 12-month period;

d. All applicable standards of local ordinances that govern or concern yard waste handling, composting, storage or disposal are satisfied;

e. They pose no nuisance or present or potential threat to human health or the environment; and

f. The owner submits a complete certification letter in accordance with 9 VAC 20-101-90 A before receiving any waste at the site.

5. Owners or other persons authorized by the owner of real property who receive only yard waste generated off-site for the purpose of producing compost on said property shall be exempt from all other provisions of this chapter and from all requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.) as applied to the composting activity provided that:

a. Not more than 500 cubic yards of yard waste generated off-site is received at the owner's said property in any consecutive 12-month period;

b. No compensation will be received, either directly or indirectly, by the owner or other persons authorized by the owner of said property from parties providing yard waste generated off said property;

c. All applicable standards of local ordinances that govern or concern yard waste handling, composting, storage or disposal are satisfied; and

d. They pose no nuisance or present or potential threat to human health or the environment.

6. Mulch shall be exempt from all other provisions of this chapter and from all requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.) provided it is reclaimed or temporarily stored incidental to reclamation and is not accumulated speculatively and is managed without creating an open dump, hazard or a public nuisance.

9 VAC 20-101-70. Exemption of small waste disposal units for vegetative wastes from land clearing.

A. Owners of real property who operate small waste disposal units that qualify under all the conditions of this section shall be exempt from other provisions of this chapter as applied to those units. They shall likewise be exempt from the requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.) except for those sections cited below. No person other than the owner of the real property shall be exempt under this section. All owners of the real property who hold title to property at the time the disposal unit is initially opened or during the time the unit remains open (limited to two calendar years below) shall, in the exercise of this exemption, accept responsibility for maintaining compliance of the unit with all requirements of this chapter as set out in this exemption. The owner agrees that he shall not sell, give or otherwise transfer the responsibility for the unit's compliance to any other party throughout its active life, the post-closure care period, and the corrective action period, and that he shall remain the principal party responsible for the compliance of the unit with this chapter.

Only units that are in compliance with all requirements of this section shall qualify, and waste disposal units that are not in compliance with all requirements of this section shall not qualify or shall cease to qualify. Units that qualify for this exemption shall comply with the following requirements.

1. No waste that is not a vegetative waste or yard waste as defined in 9 VAC 20-101-10 shall be placed in the disposal unit. Grass trimmings and bulk leaves shall not be placed in the disposal unit.

2. The waste disposal unit shall not be larger than 0.50 acres in size.

3. The waste disposal unit shall not be located within 1,000 feet of any other waste disposal unit of any type, including other disposal units exempted by this chapter.

4. The waste disposal unit shall not be located within 150 feet of any existing building or planned building. The waste disposal unit shall not be located within 50 feet of any existing or planned subdivision lot that may be used for the erection of a building.

5. The waste disposal unit shall not be located within 100 feet of a flowing stream; body of water; any well, spring, sinkhole, or unstable geologic feature. Also, it shall not be located within 200 feet of any groundwater source of drinking water.

6. The waste disposal unit shall be constructed to separate all waste by at least two feet vertically from the seasonal high water table.

7. The waste disposal unit should not obstruct the scenic view from any public road and should be graded to present a good appearance.

8. Mounding of the waste disposal unit shall not reach an elevation more than 20 feet above the original elevation of the terrain before the disposal began. (Note: the elevation of the original terrain should be based on the general area and not the bottom of ravines and small depressions in the disposal area.)

9. The waste received by the waste disposal unit shall be limited to the following:

a. Waste generated on-site;

b. Waste generated by clearing the path of a roadway or appurtenances to the roadway when buried within the right-of-way of the roadway (waste shall not be buried in the structural roadway prism) or adjacent land under a permanent easement and the terms of the easement incorporate the construction of the disposal unit; and

c. Waste from property that is owned by the owner of the disposal unit, within the same construction project, and generated not more than two miles from the unit.

10. The waste disposal unit shall be closed two calendar years from the date it first receives waste. The closure shall include cover with two feet of compacted soil, grading for good appearance with slopes that prevent erosion, and seeding or revegetation. During the life of the unit, sufficient earth should be applied periodically to prevent excessive subsidence of the waste disposal unit when closed. Sides of the finished unit shall be sloped to prevent erosion, and slopes shall not be steeper than one vertical foot to three horizontal feet.

11. The location plat and legal description, as set out in subdivision 16 of this subsection, of all units that are not located wholly within the bed or right-of-way of a public road shall be recorded in the deed book for the property in the court of record prior to the first receipt of waste. Waste disposal shall not be allowed within the structural roadway prism.

12. The owner shall maintain continuous control of access to all disposal units from the time they are opened until they are closed in accordance with this chapter. The owner shall prevent fires and provide standby equipment and supplies sufficient to easily suppress a fire. Brush and small limbs that might provide tinder for a fire shall be covered at the end of the work day with one foot of soil.

13. The owner shall not be exempt from the groundwater monitoring and corrective action requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.) to include required monitoring during the post-closure period. The owner of a small waste disposal unit shall comply in all respects with the groundwater monitoring and corrective action requirements contained in 9 VAC 20-80-260 B 11, C 12, C 13, D and 9 VAC 20-80-310.

14. The owner shall not be exempt from the decomposition gas monitoring and venting requirements of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.). The owner of a small waste disposal unit shall comply in all respects with the decomposition gas monitoring and venting requirements as established in 9 VAC 20-80-260 B 9 and 9 VAC 20-80-280.

15. The owner shall not be exempt from any requirement of the Financial Assurance Regulations For Solid Waste Disposal Facilities, 9 VAC 20-70-10 et seq., and shall comply with all financial assurance requirements.

16. At least six weeks before beginning construction of a waste disposal unit, the owner of the real property shall notify in writing the director, the governing board of the city, county or town wherein the property lies, and all property owners whose parcel will abut the area of the proposed disposal unit. The notice shall give the names and legal addresses of the owners, the type of unit to be developed, and the projected date of initial construction of the unit. The owner shall include a plat and legal description of the disposal unit's metes and bounds prepared and stamped by a Virginia licensed land surveyor. The plat and description shall follow all standard practice such as inclusion of the nearest existing intersection of state roads and existing fixed survey markers in the vicinity.

Note: Unless otherwise designated, all monitoring and reporting requirements shall begin at the initiation of the unit's operations and all reports shall be sent to the department and the chief executive of the local government.

B. The use of small amounts of brush used on-site with filter cloth to form a barrier for erosion control shall not be considered a waste disposal unit or require a permit when the barrier is constructed in accordance with the approved erosion control plan for the site.

9 VAC 20-101-80. Exemptions to permitting requirements.

A. The Code of Virginia includes exemptions from permitting requirements of the board for specified activities involving vegetative waste. Persons entitled to these exemptions are not required to comply with the permitting requirements of Part V (9 VAC 20-101-160 et seq.) of this chapter or to have a permit under the Virginia Solid Waste Management Regulations (9 VAC 20-80-10 et seq.). Unless exempted by other provisions of this chapter or other regulations of the board, they are required to comply with facility standards contained in Part IV (9 VAC 20-101-110 et seq.) of this chapter.

B. Any person who removes trees, brush, or other vegetation from land used for agricultural or forestal purposes is exempted from the requirement to obtain a permit for that operation under this chapter or the Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 et seq., provided that such material is deposited or placed on the same or other property of the same landowner from which such materials were cleared.

C. Owners or operators of agricultural operations which include yard waste composting units are not required to receive a permit for the construction or operation of those yard waste composting units under this chapter or the Virginia Solid Waste Management Regulations, 9 VAC 20-80-10 et seq., provided that:

1. The composting area is located not less than 300 feet from a property boundary of a parcel owned or controlled by another person, is located not less than 1,000 feet from an occupied dwelling not located on the same property as the composting area, and is not located within an area designated as a flood plain;

2. The agricultural operation has at least one acre of ground suitable to receive yard waste for each 150 cubic yards of finished compost generated;

3. The total time for the composting process and storage of material that is being composted or has been composted shall not exceed 18 months prior to the field application or sale as a horticultural or agricultural product;

4. The owner and operator of any agricultural operation that receives in any 12-month period (consecutive) more than 6,000 cubic yards of yard waste generated from property not within the control of the owner or the operator shall submit by July 15 each year to the director an annual report in accordance with 9 VAC 20-101-100 describing the volume and types of yard waste received for composting by the operation between July 1 and June 30 of the preceding consecutive 12 months and shall certify that the yard waste composting facility complies with local ordinances; and

5. Prior to the receipt of yard waste generated off-site, the owner or operator of the agricultural operation submits to the director a certification letter in compliance with 9 VAC 20-101-90 B.

9 VAC 20-101-90. Contents of certification letter.

A. Prior to the receipt of yard waste generated off-site, the owner or operator of the agricultural operation intending to operate under the exemption contained in subdivision 4 of 9 VAC 20-101-60 shall submit to the director a certification letter which shall include all of the following:

1. The name and address of the agricultural operation owner or operator;

2. The name, physical location and mailing address of the agricultural operation;

3. The location of the yard waste composting facility at the address specified pursuant to subdivision 2 of this subsection and the amount of land available for receipt of yard waste;

4. A statement by the owner or operator that the owner or operator agrees to receive no solid waste other than yard waste;

5. A statement by the owner or operator that no yard waste that is received will remain on-site, in any combination of processing time and storage time, for more than 18 months.

6. A statement by the owner or operator that at least 1.0 acre of suitable ground per 150 cubic yards of finished compost generated annually will be reserved at the site to receive the yard waste;

7. A statement by the owner or operator that the total amount of yard waste received from off-site generators will not exceed 6,000 cubic yards in any consecutive 12-month period;

8. A statement by the owner or operator that the yard waste composting facility at the agricultural operation specified pursuant to subdivision 2 of this subsection is not within an area subject to base floods, is located no less than 300 feet from a property boundary, is located no less than 1,000 feet from any occupied dwelling not located on the same parcel;

9. The following statement signed by the owner or operator:

"I certify that I have personally examined and am familiar with the information submitted in this letter and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete."

B. Prior to the receipt of yard waste generated off-site, the owner or operator of the agricultural operation intending to operate under the exemption contained in 9 VAC 20-101-80 C shall submit to the director a certification letter which shall include all of the following:

1. The name and address of the agricultural operation owner or operator;

2. The name, physical location and mailing address of the agricultural operation;

3. The location of the yard waste composting facility at the address specified pursuant to subdivision 2 of this subsection and the amount of land available for receipt of yard waste;

4. A statement by the owner or operator that the owner or operator agrees to receive no solid waste other than yard waste;

5. A statement by the owner or operator that no yard waste that is received will be remain on-site, in any combination of processing time and storage time, for more than 18 months.

6. A statement by the owner or operator that at least 1.0 acre of suitable ground per 150 cubic yards of finished compost generated annually will be reserved at the site to receive the yard waste;

7. A statement by the owner or operator that the total amount of yard waste received from off-site generators will not exceed 6,000 cubic yards in any consecutive 12-month period, or a statement by the owner that he will file an annual report in accord with 9 VAC 20-101-100 each and every year of its operation and that operation under the exemption is contingent upon prompt and complete filing of the annual report;

8. A statement by the owner or operator that any yard waste management sites at the agricultural operation specified pursuant to subdivision 2 of this subsection is not within an area subject to base floods, is located no less than 300 feet from a property boundary, is located no less than 1,000 feet from any occupied dwelling not located on the same parcel;

9. The following statement signed by the owner or operator:

"I certify that I have personally examined and am familiar with the information submitted in this letter and all attached documents, and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete."

YARD WASTE COMPOSTING
NOTICE OF INTENT AND CERTIFICATION

Name of the Owner or Operator:

Mailing Address:	Composting Site Address:
Telephone Number:	Telephone Number:

COMPOSTING SITE CONDITIONS

Agricultural operations receiving only yard waste for composting are exempt from permitting requirements if the following conditions are met:

The area designated for composting is located greater than 300 feet from all property boundaries;

The area designated for composting is located more than 1,000 feet from any occupied dwelling not located on the same property as the composting area;

The area designated for composting is not located within an area designated as a flood plain as defined in § 10.1-600 of the Code of Virginia;

The agricultural operation has, at least, one acre of ground suitable to receive yard waste for each 150 cubic yards of finished compost generated annually; and

The total time for the composting process and storage of the material that is being composted or has been composted shall not exceed 18 months prior to its field application or sale as a horticultural or agricultural product.

I hereby certify that the site designated for this yard waste composting operation meets each of the above requirements for an agricultural exemption from the permitting requirements.

Signature of the Owner or Operator: Date:

In addition to the above certification, an owner or operator of any agricultural operation that receives more than 6,000 cubic yards of yard waste in any consecutive twelve months from property not within the control of the owner or operator shall complete the certification on the reverse side of this form.

FORM DEQ-YW-1 (Provided in accordance with § 10.1-1408.1 K of the Code of Virginia)

Certification required for owners or operators of agricultural operations that receive more that 6,000 cubic yards of yard waste generated annually from property not within control of owner or operator.
The undersigned certifies that the location and operation of the composting facility complies with all local ordinances.
Signature or the owner or operator:
Type or printed name: Title: Date:
Note: Section 10.1-1408.1 K of the Code of Virginia requires that owners or operators of composting facilities receiving more than 6,000 cubic yards of yard wastes generated from property not within control of the owner or operator submit an annual report describing the volume and types of yard waste received to operate the composting facility. Form DEQ-YW-2 shall be submitted to the director by July 15 for the preceding 12 months.

(Provided in accordance with § 10.1-1408.1 K of the Code of Virginia)

9 VAC 20-101-100. Contents of annual report.

Owners or operators of agricultural operation which include yard waste composting units who intend to operate under the exemption of 9 VAC 20-101-80 C shall submit by July 15 each year to the director an annual report on the following form describing accurately and completely the volume and types of yard waste received for composting by the operation between July 1 and June 30 of the preceding 12 months and shall certify that the yard waste composting facility continues to comply with local ordinances.

YARD WASTE COMPOSTING ANNUAL REPORT

Owners or operators of an agricultural composting operation receiving only yard waste, who are exempt from permitting requirements, and who may receive more than 6,000 cubic yards of yard waste generated from property not within control of the owner or operator in any twelve months period, shall submit to the director an annual report describing the volume and types of yard waste received for composting. Completion and filing of this form by July 15 will constitute compliance with the statutory requirement for the preceding twelve months, July 1 through June 30.

Year Ending**:**

Name of owner or operator:
Address:

Telephone Number:

Type of Waste	Volume (Cubic Yards)
Leaves	
Grass Trimmings	
Brush	
Wood Chips	
Shrub and Tree Trimmings	
Roots and Stumps (Less than 6 inches in diameter)	
Total	

Signature or the owner or operator:

Type or printed name:
Title: Date:

Form DEQ-YW-2 (Provided in accordance with § 10.1-1408.1 K of the Code of Virginia)

PART IV.
STANDARDS FOR All VEGETATIVE WASTE MANAGEMENT FACILITIES.

9 VAC 20-101-110. Compliance.

Vegetative waste management facilities, including yard waste composting facilities, shall comply with the requirements of this part unless otherwise exempted by other provisions in this chapter.

9 VAC 20-101-120. Siting.

A. Yard waste composting and vegetative waste management facilities shall not be sited or constructed in areas subject to base floods. No facility shall be closer than 50 feet to any regularly flowing stream.

B. Yard waste composting and vegetative waste management facilities shall not be located in areas which are geologically unstable or where the site topography is heavily dissected.

C. Acceptable yard waste composting or vegetative waste management facility sites must have sufficient area and terrain to allow for control and proper management of runon, runoff, and leachate.

D. The boundary of a yard waste composting or vegetative waste management facility shall not be located within 200 feet of any dwelling, a health care facility, school, or similar type of public institution. The director may reduce this set-back distance if the owner or operator successfully shows that a nuisance will not be created owing to the operation of such facility.

E. A yard waste composting or vegetative waste management facility shall not be located atop a closed waste disposal unit located on property whose deed or some other instrument which is normally examined during title searches contains a notation required under 9 VAC 20-80-250 or 9 VAC 20-80-270I of the Virginia Solid Waste Management Regulations with the following exceptions:

1. For a closed unpermitted waste disposal unit at a solid waste management facility closed prior to December 1988, the following conditions shall apply:

a. The yard waste composting or vegetative waste management facility does not pose a present or potential hazard to human health or the environment;

b. All siting, design and construction, operating and closure standards of this part have been satisfied;

c. The owner or operator of the yard waste composting or vegetative waste management facility successfully satisfies all provisions of Part V (9 VAC 20-101-160 et seq.).

2. For a waste disposal unit closed prior to December 1988 which is located at a solid waste management facility for which a permit has been issued and that is operating under the provisions of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.), the following conditions shall apply:

a. The yard waste composting or vegetative waste management facility does not pose a present or potential hazard to human health or the environment;

b. All siting, design and construction, operating and closure standards of this part have been satisfied;

c. The owner or operator of the yard waste composting or vegetative waste management facility successfully demonstrates to the director that all provisions of Part V (9 VAC 20-101-160 et seq.) have been satisfied.

d. The closure plan for the solid waste management facility is amended to incorporate the operating and approved closure plans for the yard waste composting or vegetative waste management facility. The owner or operator of the solid waste management facility must request the amendment to the solid waste facility closure plan in accordance with 9 VAC 20-80-620 of the Solid Waste Management Regulations.

3. For waste disposal units closed after December 1988 and under the provisions of the Solid Waste Management Regulations (9 VAC 20-80-10 et seq.), the following conditions shall apply:

a. The yard waste composting or vegetative waste management facility does not pose a present or potential hazard to human health or the environment;

b. The existing permit issued for the solid waste management facility at which the closed waste disposal unit is located is amended to include any changes that may be required as a result of the operation of the vegetative or yard waste composting operation. The owner or operator must request the permit amendment in accordance with Part VII (9 VAC 20-80-480 et seq.) of the Solid Waste Management Regulations.

9 VAC 20-101-130. Design and construction.

A. A handling area and equipment shall be provided to segregate waste other than vegetative waste and noncompostable components in the vegetative waste and to store such components in properly constructed containers prior to their disposal at a permitted solid waste disposal facility.

B. If the yard waste composting or vegetative waste management facility is located in any area where the seasonal high water table lies within 24 inches of the ground surface, the composting and handling areas shall be hard-surfaced and diked or bermed to prevent entry of runon or escape of runoff, leachate, and other liquids, and a sump with either a gravity discharge to atmosphere or an adequately sized pump located at the low point of the hard-surfaced area shall be provided to convey liquids to a waste water treatment (including but not limited to recirculation), disposal or holding facility.

C. Sound engineering controls shall be incorporated into design of yard waste composting and vegetative waste management facilities located on sites with:

1. Springs, seeps, and other groundwater intrusions;

2. Gas, water, or sewage lines under the active areas; or electrical transmission lines above or below the active areas.

D. Areas used for mixing, composting, curing, screening, and storing shall be graded to prevent runon, collect runoff, and provided with a drainage system to route the collected runoff to a waste water storage, treatment (including but not limited to recirculation), or disposal facility.

E. A buffer zone with the minimum size of 100 feet shall be incorporated in the yard waste composting or vegetative waste management facility design between the facility boundaries and process operations.

F. Roads serving the unloading, handling, composting, and storage areas shall be usable under all weather conditions.

9 VAC 20-101-140. Operations.

A. The addition of any other solid waste including but not limited to hazardous waste, regulated medical waste, construction waste, debris, demolition waste, industrial waste, or other municipal solid waste to the vegetative waste received at the yard waste composting or vegetative waste management facility is prohibited, except that the materials which are excluded from regulation as solid waste under 9 VAC 20-80-150 F of the Solid Waste Management Regulations may be combined with yard waste for the purpose of producing compost under the provisions of Parts II (9 VAC 20-101-20 et seq.) and III (9 VAC 20-101-60 et seq.) of this chapter.

B. Solid waste other than vegetative waste shall be segregated from the vegetative waste and promptly removed from the yard waste composting or vegetative waste management facility site for proper management at a solid waste management facility permitted by the department. Segregated solid waste shall not remain at the yard waste composting or vegetative waste management facility at the end of the working day unless it is stored in containers specifically designed for storage of solid waste. Containerized putrescible waste shall not remain at the yard waste composting or vegetative waste management facility for more than seven days. Containerized nonputrescible waste shall be collected for disposal at intervals of less than 30 days.

C. Access to a yard waste composting or vegetative waste management facility that has not been closed in accordance with 9 VAC 20-101-150 shall be permitted only when an attendant is on duty.

D. Dust, odors, and vectors shall be controlled so they do not constitute nuisances or hazards.

E. The owner or operator shall prepare, implement, and enforce a safety program and a fire prevention and suppression program designed to minimize hazards.

F. Open burning shall be prohibited on the waste management facility property.

G. Fugitive dust and mud deposits on main off-site roads and access roads shall be minimized at all times to limit nuisances.

H. Leachate or other runoff from a yard waste composting or vegetative waste management facility shall not be permitted to drain or discharge directly into surface waters.

I. Designed buffer zones shall be maintained.

9 VAC 20-101-150. Closure.

A. The owner or operator shall close his yard waste composting or vegetative waste management facility in a manner that minimizes the need for further maintenance. All waste and residues, including unfinished compost, shall be removed and

disposed in a permitted solid waste management facility. Any finished compost present at the time of closure shall be removed and marketed or utilized in accordance with the operational plan for the facility, or disposed in a permitted solid waste management facility. If the owner or operator is unable or unwilling to remove all compost, the facility shall close in accordance with Part V (9 VAC 20-80-240 et seq.) of the Solid Waste Management Regulations.

B. The following items shall be considered in development of the closure plan and an amendment of plan:

1. The owner or operator of a yard waste composting or vegetative waste management facility shall have a written closure plan. This plan shall identify the steps necessary to completely close the facility at the time when its operation is most extensive. The closure plan shall include, at least a schedule for final closure including, as a minimum, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure.

2. The closure plan shall be submitted to the department prior to the construction and operation of the yard waste composting or vegetative waste management facility, unless the owner or operator is exempt from the requirements of the Financial Assurance Regulations of Solid Waste Facilities (9 VAC 20-70-10 et seq.), in which case the closure plan shall be submitted no later than 30 days from the date the yard waste composting or vegetative waste management facility commences operation. The department shall review each closure plan no later than 90 days from receipt. If the department finds plan to be deficient, it shall cite the reasons for the finding and state what amendments are necessary. If found to be deficient, the closure plan shall be amended by the owner or operator within 90 days of the director's finding. If the amended closure plan continues to be deficient, the department will amend the plan to meet the closure performance requirements within 90 days.

3. The owner or operator may amend his closure plan at any time during the active life of the yard waste composting or vegetative waste management facility. The owner or operator shall so amend his plan any time changes in operating plans or facility design affects the closure plan. Amended plans shall be submitted to the department within 15 days of such changes. The director may require that amended plans be modified to meet the closure requirements.

4. At any time during the operating life of the yard waste composting or vegetative waste management facility, the closure plan shall be made available to the department upon request of the director.

5. The owner or operator shall submit an updated closure plan to the director at least 180 days before the date he expects to begin final closure. The director will modify, approve, or disapprove the plan within 90 days of receipt. If the closure plan is disapproved, the owner or operator shall modify the plan to meet the closure requirements. If an owner or operator plans to begin closure within 180 days after January 7, 1998, he shall submit the necessary plans on January 7, 1998.

C. The owner or operator shall complete closure activities in accordance with the approved closure plan and within 12 months after receiving the final volume of wastes. The director may approve a longer closure period if the owner or operator can demonstrate that the required or planned closure activities will, of necessity, take longer than 12 months to complete; and that he has taken all necessary steps to eliminate any significant threat to human health and the environment from the unclosed but inactive yard waste composting or vegetative waste management facility.

D. At the beginning of the closure activities, the owner or operator shall post at least one sign notifying all persons of the closing, and providing a notice prohibiting further receipt of waste materials. Further, suitable barriers shall be installed at former accesses to prevent new waste from being deposited.

E. A yard waste composting or vegetative waste management facility shall be deemed properly closed when the above actions have been taken by the owner or operator and a representative of the department verifies same by an on-site inspection and provides a written confirmation that closure has been completed properly.

PART V.
FACILITY PERMIT BY RULE.

9 VAC 20-101-160. Permit by rule provisions.

Notwithstanding any provisions of Part VII (9 VAC 20-80-480 et seq.) of the Virginia Solid Waste Management Regulations, the owner or operator of a vegetative waste management facility which accepts only vegetative wastes as defined in 9 VAC 20-101-10 shall be deemed to have a solid waste management facility permit if the owner or operator:

1. Demonstrates to the director the legal control over the site for the useful life of the vegetative waste management facility. A documentation of an option to purchase will be considered as a temporary substitute for a deed; however, the true copy of a deed shall be provided to the department before construction begins.

2. Notifies the director of his intent to operate such a facility and provides the department:

a. The certification from the governing body of the county, city, or town in which the facility is to be located that the location and operation of the facility are consistent with all applicable ordinances; and

b. A disclosure statement as defined in 9 VAC 20-101-10 as required under § 10.1-1408.1 B of the Code of Virginia.

3. Provides the director with a certification that the facility meets the siting standards of 9 VAC 20-101-120.

4. Furnishes to the director a certificate signed by a professional engineer licensed to practice by the Commonwealth that the facility has been designed and constructed in accordance with the standards of 9 VAC 20-101-130. Such certificate shall contain no qualifications or exceptions from the requirements and plans.

5. Submits to the director an operational plan describing how the standards of 9 VAC 20-101-140 will be met and the procedure for marketing or utilizing the finished compost.

6. Submits to the director a closure plan describing how the standards of 9 VAC 20-101-150 will be met.

7. Submits to the director the proof of financial responsibility if required by the Financial Assurance Regulations of Solid Waste Facilities (9 VAC 20-70-10 et seq.).

9 VAC 20-101-170. Change of ownership.

A permit by rule may not be transferred by the permittee to a new owner or operator. However, when the property transfer takes place without proper closure, the new owner or operator shall notify the department of the sale and fulfill all the requirements contained in 9 VAC 20-101-160 with the exception of subdivision 7 of 9 VAC 20-101-160 within 30 days of the date of the sale. If required by the Financial Assurance Regulations of Solid Waste Facilities (9 VAC 20-70-10 et seq.), financial assurance proof shall be posted by the new owner or operator within 30 days from the date of the sale; provided however, that until the actual posting of such financial assurance proof, the old owner or operator shall not be relieved of his responsibility to post financial assurance. Upon presentation of the financial assurance proof required by subdivision 7 of 9 VAC 20-101-160 by the new owner or operator, the department will release the old owner or operator from his closure and financial responsibilities under the Financial Assurance Regulations of Solid Waste Facilities (9 VAC 20-70-10 et seq.) and acknowledge existence of the new permit by rule in the name of the new owner or operator.

9 VAC 20-101-180. Facility modifications.

The owner or operator of a vegetative waste management facility may modify the design and operation of the facility by furnishing the department a new certificate required by subdivision 4 of 9 VAC 20-101-160 and a new operational plan required by subdivision 5 of 9 VAC 20-101-160. Whenever modifications in the design or operation of the facility affect the provisions of the approved closure plan, the owner or operator shall submit an amended closure plan in accordance with the requirements of 9 VAC 20-101-150. Should there be an increase in the closure costs, the owner or operator shall submit a new proof of financial responsibility as required by the Financial Assurance Regulations of Solid Waste Facilities (9 VAC 20-70-10 et seq.).

PART VI.
ENFORCEMENT.

9 VAC 20-101-190. Loss of permit by rule status.

In the event that a vegetative waste management facility operating under a permit by rule violates any provisions of this chapter in a substantive manner, the owner or operator of the facility will be considered to be operating an unpermitted facility as provided for in 9 VAC 20-80-80 of the Virginia Solid Waste Management Regulations and shall be required to either obtain a new permit as required by Part VII (9 VAC 20-80-480 et seq.) or close under Part V (9 VAC 20-80-240 et seq.) or VI (9 VAC 20-80-320 et seq.) of those regulations, as applicable.

9 VAC 20-101-200. Termination.

In addition to the grounds identified in § 10.1-1409 of the Code of Virginia, the director shall terminate permit by rule and shall require closure of the facility whenever he finds that:

1. As a result of changes in key personnel, the requirements necessary for a permit by rule are no longer satisfied;

2. The applicant has knowingly or willfully misrepresented or failed to disclose a material fact in his disclosure statement, or any other report or certification required under this chapter, or has knowingly or willfully failed to notify the director of any material change to the information in the disclosure statement; or

3. Any key personnel have been convicted of any of the crimes listed in § 10.1-1409 of the Code of Virginia, punishable as felonies under the laws of the Commonwealth or the equivalent thereof under the laws of any other jurisdiction; or has

been adjudged by an administrative agency or a court of competent jurisdiction to have violated the environmental protection laws of the United States, the Commonwealth or any other state and the director determines that such conviction or adjudication is sufficiently probative of the permittee's inability or unwillingness to operate the facility in a lawful manner.

9 VAC 20-101-210. Enforcement.

Loss or termination of a permit by rule under this chapter shall not preclude additional action for remediation or enforcement, including (without limitation) the assessment of civil charges or civil penalties, as is otherwise authorized by law.

WAC 173-350-220

(1) Composting facilities - Applicability.

(a) This section is applicable to all facilities or sites that treat solid waste by composting. This section is not applicable to:

(i) Composting used as a treatment for dangerous wastes regulated under chapter 173-303 WAC, Dangerous waste regulation;

(ii) Composting used as a treatment for petroleum contaminated soils regulated under WAC 173-350-320;

(iii) Treatment of liquid sewage sludge or biosolids in digesters at wastewater treatment facilities regulated under chapter 90.48 RCW, Water pollution control and chapter 70.95J RCW, Municipal sewage sludge -- Biosolids;

(iv) Treatment of other liquid solid wastes in digesters regulated under WAC 173-350-330; and

(v) Composting biosolids when permitted under chapter 173-308 WAC, Biosolids management.

(b) In accordance with RCW 70.95.305, the operation of the following activities in this subsection are subject solely to the requirements of (c) of this subsection and are exempt from solid waste handling permitting. An owner or operator that does not comply with the terms and conditions of (c) of this subsection is required to obtain a permit from the jurisdictional health department and shall comply with all other applicable requirements of this chapter. In addition, violations of the terms and conditions of (c) of this subsection may be subject to the penalty provisions of RCW 70.95.315.

(i) Production of substrate used solely on-site to grow mushrooms;

(ii) Vermicomposting, when used to process Type 1, Type 2, or Type 3 feedstocks generated on-site;

(iii) Composting of Type 1 or Type 2 feedstocks with a volume limit of forty cubic yards of material on-site at any time. Material on-site includes feedstocks, partially composted feedstocks, and finished compost;

(iv) Composting of food waste generated on-site and composted in containers designed to prohibit vector attraction and prevent nuisance odor generation. Total volume of the containers shall be limited to ten cubic yards or less;

(v) Agricultural composting when all the agricultural wastes are generated on-site and all finished compost is used on-site;

(vi) Agricultural composting when any agricultural wastes are generated offsite, and all finished compost is used on-site, and total volume of material is limited to one thousand cubic yards on-site at any time. Material on-site includes feedstocks, partially composted feedstocks, and finished compost; and

(vii) Agricultural composting at registered dairies when the composting is a component of a fully certified dairy nutrient management plan as required by chapter 90.64 RCW, Dairy Nutrient Management Act.

(viii) Composting of Type 1 or Type 2 feedstocks when more than forty cubic yards and less than two hundred fifty cubic yards of material is on-site at any one time.

(ix) Agricultural composting, when any of the finished compost is distributed offsite and when it meets the following requirements:

(A) More than forty cubic yards, but less than one thousand cubic yards of agricultural waste is on-site at any time; and

(B) Agricultural composting is managed according to a farm management plan written in conjunction with a conservation district, a qualified engineer, or other agricultural professional able to certify that the plan meets applicable conservation practice standards in the Washington Field Office Technical Guide produced by the Natural Resources Conservation Service.

(x) Vermicomposting when used to process Type 1 or Type 2 feedstocks generated offsite. Total volume of materials is limited to one thousand cubic yards on-site at any one time.

(c) Composting operations identified in subsection (b) shall be managed according to the following terms and conditions to maintain their exempt status:

(i) Comply with the performance standards of WAC 173-350-040;

(ii) Protect surface water and ground water through the use of best management practices and all known available and reasonable methods of prevention, control, and treatment as appropriate. This includes, but is not limited to, setbacks from wells, surface waters, property lines, roads, public access areas, and site-specific setbacks when appropriate;

(iii) Control nuisance odors to prevent migration beyond property boundaries;

(iv) Manage the operation to prevent attraction of flies, rodents, and other vectors;

(v) Conduct an annual analysis, prepared in accordance with the requirements of subsection (4)(a)(viii) of this section, for composted material that is distributed offsite from categorically exempt facilities described in subsection (1)(b)(vii) through (ix) of this section.

(vi) Prepare and submit an annual report to the department and the jurisdictional health department by April 1st for categorically exempt facilities described in subsection (1)(b)(vii) through (ix) of this section. Annual reports are not required for facilities operating under the permit exemption provided in (b)(vii) of this subsection if the composted material is not distributed offsite. The annual report shall be on forms supplied by the

department and shall detail facility activities during the previous calendar year and shall include the following information:

(A) Name and address of the facility;

(B) Calendar year covered by the report;

(C) Annual quantity and type of feedstocks received and compost produced, in tons;

(D) Annual quantity of composted material sold or distributed, in tons;

(E) Results of the annual analysis of composted material required by subsection (1)(c)(v) of this section; and

(F) Any additional information required by written notification of the department.

(vii) Allow the department or the jurisdictional health department to inspect the site at reasonable times;

(viii) For activities under (b)(viii) through (x) of this subsection, and registered dairies where compost is distributed offsite, the department and jurisdictional health department shall be notified in writing thirty days prior to beginning any composting activity. Notification shall include name of owner or operator, location of composting operation and identification of feedstocks.

(2) Composting facilities - Location standards. There are no specific location standards for composting facilities subject to this chapter; however, composting facilities must meet the requirements provided under WAC 173-350-040(5).

(3) Composting facilities - Design standards. The owner or operator of a composting facility shall prepare engineering reports/plans and specifications, including a construction quality assurance plan, to address the design standards of this subsection. Scale drawings of the facility including the location and size of feedstock and finished product storage areas, compost processing areas, fixed equipment, buildings, leachate collection devices, access roads and other appurtenant facilities; and design specifications for compost pads, storm water run-on prevention system, and leachate collection and conveyance systems shall be provided. All composting facilities shall be designed and constructed to meet the following requirements:

(a) When necessary to provide public access, all-weather roads shall be provided from the public highway or roads to and within the compost facility and shall be designed and maintained to prevent traffic congestion, traffic hazards, dust and noise pollution;

(b) Composting facilities shall separate storm water from leachate by designing storm water run-on prevention systems, which may include covered areas (roofs), diversion swales, ditches or other designs to divert storm water from areas of feedstock preparation, active composting and curing;

(c) Composting facilities shall collect any leachate generated from areas of feedstock preparation, active composting and curing. The leachate shall be conveyed to a leachate holding pond, tank or other containment structure. The leachate holding structure shall be of adequate capacity to collect the amount of leachate generated, and the volume calculations shall be based on the facility design, monthly water balance, and precipitation data. Leachate holding ponds and tanks shall be designed according to the following:

(i) For leachate ponds at registered dairies, the design and installation shall meet Natural Resources Conservation Service standards for a waste storage facility in the Washington Field Office Technical Guide.

(ii) For leachate ponds at composting facilities other than registered dairies, the pond shall be designed to meet the following requirements:

(A) Have a liner consisting of a minimum 30-mil thickness geomembrane overlying a structurally stable foundation to support the liners and the contents of the impoundment. High density polyethylene geomembranes used as primary liners or leak detection liners shall be at least 60-mil thick to allow for proper welding. The jurisdictional health department may approve the use of alternative designs if the owner or operator can demonstrate during the permitting process that the proposed design will prevent migration of solid waste constituents or leachate into the ground or surface waters at least as effectively as the liners described in this subsection;

(B) Have dikes and slopes designed to maintain their structural integrity under conditions of a leaking liner and capable of withstanding erosion from wave action, overfilling, or precipitation;

(C) Have freeboard equal to or greater than eighteen inches to avoid overtopping from wave action, overfilling, or precipitation. The jurisdictional health department may reduce the freeboard requirement provided that other engineering controls are in place which prevent overtopping. These engineering controls shall be specified during the permitting process;

(D) Leachate ponds that have the potential to impound more than ten-acre feet (three million two hundred fifty-nine thousand gallons) of liquid measured from the top of the dike and which would be released by a failure of the containment dike shall be reviewed and approved by the dam safety section of the department.

(iii) Tanks used to store leachate shall meet design standards in WAC 173-350-330 (3)(b).

(d) Composting facilities shall be designed with process parameters and management procedures that promote an aerobic composting process. This requirement is not intended to mandate forced aeration or any other specific composting technology. This requirement is meant to ensure that compost facility designers take into account porosity, nutrient balance, pile oxygen, pile moisture, pile temperature, and retention time of composting when designing a facility.

(e) Incoming feedstocks, active composting, and curing materials shall be placed on compost pads that meet the following requirements:

(i) All compost pads shall be curbed or graded in a manner to prevent ponding, run-on and runoff, and direct all leachate to collection devices. Design calculations shall be based upon the volume of water resulting from a twenty-five-year storm event as defined in WAC 173-350-100;

(ii) All compost pads shall be constructed over soils that are competent to support the weight of the pad and the proposed composting materials;

(iii) The entire surface area of the compost pad shall maintain its integrity under any machinery used for composting activities at the facility; and

(iv) The compost pad shall be constructed of materials such as concrete (with sealed joints), asphaltic concrete, or soil cement to prevent subsurface soil and ground water contamination;

(v) The jurisdictional health department may approve other materials for compost pad construction if the permit applicant is able to demonstrate that the compost pad will meet the requirements of this subsection.

(4) Composting facilities - Operating standards. The owner or operator of a composting facility shall:

(a) Operate the facility to:

(i) Control dust, nuisance odors, and other contaminants to prevent migration of air contaminants beyond property boundaries;

(ii) Prevent the attraction of vectors;

(iii) Ensure that only feedstocks identified in the approved plan of operation are accepted at the facility;

(iv) Ensure the facility operates under the supervision and control of a properly trained individual during all hours of operation, and access to the facility is restricted when the facility is closed;

(v) Ensure facility employees are trained in appropriate facility operations, maintenance procedures, and safety and emergency procedures according to individual job duties and according to an approved plan of operation;

(vi) Implement and document pathogen reduction activities when Type 2, 3 or 4 feedstocks are composted. Documentation shall include compost pile temperature and notation of turning as appropriate, based on the composting method used. Pathogen reduction activities shall at a minimum include the following:

(A) In vessel composting - the temperature of the active compost pile shall be maintained at fifty-five degrees Celsius (one hundred thirty-one degrees Fahrenheit) or higher for three days; or

(B) Aerated static pile - the temperature of the active compost pile shall be maintained at fifty-five degrees Celsius (one hundred thirty-one degrees Fahrenheit) or higher for three days; or

(C) Windrow composting - the temperature of the active compost pile shall be maintained at fifty-five degrees Celsius (one hundred thirty-one degrees Fahrenheit) or higher for fifteen days or longer. During the period when the compost is maintained at fifty-five degrees Celsius (one hundred thirty-one degrees Fahrenheit) or higher, there shall be a minimum of five turnings of the windrow; or

(D) An alternative method that can be demonstrated by the owner or operator to achieve an equivalent reduction of human pathogens;

(vii) Monitor the composting process according to the plan of operation submitted during the permitting process. Monitoring shall include inspection of incoming loads of feedstocks and pathogen reduction requirements of (a)(vi) of this subsection; and

(viii) Analyze composted material for:

(A) Metals in Table A at the minimum frequency listed in Table C. Compost facilities composting only Type 1 and Type 2 feedstocks are not required to test for molybdenum and selenium. Testing frequency is based on the feedstock type and the volume of feedstocks processed per year;

(B) Parameters in Table B at the minimum frequency listed in Table C. Testing frequency is based on the feedstock type and the volume of feedstocks processed per year;

(C) Nitrogen content at the minimum frequency listed in Table C; and

(D) Biological stability as outlined in United States Composting Council Test Methods for the Examination of Composting and Compost at the minimum frequency listed in Table C;

(E) The jurisdictional health department may require testing of additional metal or contaminants, and/or modify the frequency of testing based on historical data for a particular facility, to appropriately evaluate the composted material.

Table A - Metals

Metal	Limit (mg/kg dry weight)
Arsenic	< = 20 ppm

Cadmium	< = 10 ppm
Copper	< = 750 ppm
Lead	< = 150 ppm
Mercury	< = 8 ppm
Molybdenum1	< = 9 ppm
Nickel	< = 210 ppm
Selenium1	< = 18 ppm
Zinc	< = 1400 ppm

1Not required for composted material made from Type 1, Type 2 or a mixture of Type 1 and Type 2 feedstocks.

Table B - Other Testing Parameters

Parameter	Limit
Manufactured Inerts	< 1 percent
Sharps	0
pH	5 - 10 (range)
Fecal Coliform	< 1,000 Most Probable Number per gram of total solids (dry weight).
Salmonella	< 3 Most Probable Number per 4 grams of total solids (dry weight).

Table C - Frequency of Testing Based on Feedstocks Received

Feedstock Type	< 5,000 cubic yards	= or > 5,000 cubic yards
Type 1	Once per year	Every 10,000 cubic yards or every six months whichever is more frequent
or		
Type 2		
Type 3	Once per quarter (four times per year)	Every 5,000 cubic yards or every other month whichever is more frequent
Type 4	Every 1,000 cubic yards	Every 1,000 cubic yards or once per month whichever is more frequent

(b) Inspect the facility to prevent malfunctions and deterioration, operator errors and discharges, which may cause or lead to the release of waste to the environment or a threat to human health. Inspections shall be conducted at least weekly, unless an alternate schedule is approved by the jurisdictional health department as part of the permitting process. For compost facilities with leachate holding ponds, conduct regular liner inspections at least once every five years, unless an alternate schedule is approved by the jurisdictional health department as part of the permitting process. The frequency of inspections shall be specified in the operations plan and shall be based on the type of liner, expected service life of the material, and the site-specific service conditions. The jurisdictional health department shall be given sufficient notice and have the opportunity to be present during liner inspections. An inspection log or summary shall be kept at the facility or other convenient location if permanent

office facilities are not on-site, for at least five years from the date of inspection. Inspection records shall be available to the jurisdictional health department upon request.

(c) Maintain daily operating records of the following:

(i) Temperatures and compost pile turnings for Type 2, Type 3 and Type 4 feedstocks;

(ii) Additional process monitoring data as prescribed in the plan of operation; and

(iii) Results of laboratory analyses for composted materials as required in (a)(viii) of this subsection. Facility inspection reports shall be maintained in the operating record. Significant deviations from the plan of operation shall be noted in the operating record. Records shall be kept for a minimum of five years and shall be available upon request by the jurisdictional health department.

(d) Prepare and submit a copy of an annual report to the jurisdictional health department and the department by April 1st on forms supplied by the department. The annual report shall detail the facility's activities during the previous calendar year and shall include the following information:

(i) Name and address of the facility;

(ii) Calendar year covered by the report;

(iii) Annual quantity and type of feedstocks received and compost produced, in tons;

(iv) Annual quantity of composted material sold or distributed, in tons;

(v) Annual summary of laboratory analyses of composted material; and

(vi) Any additional information required by the jurisdictional health department as a condition of the permit.

(e) Develop, keep and abide by a plan of operation approved as part of the permitting process. The plan of operation shall convey to site personnel the concept of operation intended by the designer. The plan of operation shall be available for inspection at the request of the jurisdictional health department. If necessary, the plan shall be modified with the approval, or at the direction of the jurisdictional health department. Each plan of operation shall include the following:

(i) List of feedstocks to be composted, including a general description of the source of feedstocks;

(ii) A description of how wastes are to be handled on-site during the facility's active life including:

(A) Acceptance criteria that will be applied to the feedstocks;

(B) Procedures for ensuring that only the waste described will be accepted;

(C) Procedures for handling unacceptable wastes;

(D) Mass balance calculations for feedstocks and amendments to determine an acceptable mix of materials for efficient decomposition;

(E) Material flow plan describing general procedures to manage all materials on-site from incoming feedstock to finished product;

(F) A description of equipment, including equipment to add water to compost as necessary;

(G) Process monitoring plan, including temperature, moisture, and porosity;

(H) Pathogen reduction plan for facilities that accept Type 2, Type 3, and Type 4 feedstocks;

(I) Sampling and analysis plan for the final product;

(J) Nuisance odor management plan (air quality control plan);

(K) Leachate management plan, including monthly water balance; and

(L) Storm water management plan;

(iii) A description of how equipment, structures and other systems are to be inspected and maintained, including the frequency of inspections and inspection logs;

(iv) A neighbor relations plan describing how the owner or operator will manage complaints;

(v) Safety, fire and emergency plans;

(vi) Forms for recordkeeping of daily weights or volumes of incoming feedstocks by type and finished compost product, and process monitoring results; and

(xvii) Other such details to demonstrate that the facility will be operated in accordance with this subsection and as required by the jurisdictional health department.

(5) Composting facilities - Ground water monitoring requirements. There are no specific ground water monitoring requirements for composting facilities subject to this chapter; however, composting facilities must meet the requirements provided under WAC 173-350-040(5).

(6) Composting facilities - Closure requirements. The owner or operator of a composting facility shall:

(a) Notify the jurisdictional health department sixty days in advance of closure. At closure, all solid waste, including but not limited to, raw or partially composted feedstocks, and leachate from the facility shall be removed to another facility that conforms with the applicable regulations for handling the waste.

(b) Develop, keep and abide by a closure plan approved by the jurisdictional health department as part of the permitting process. At a minimum, the closure plan shall include methods of removing solid waste materials from the facility.

(7) Composting facilities - Financial assurance requirements. There are no specific financial assurance requirements for composting facilities subject to this chapter; however, composting facilities must meet the requirements provided under WAC 173-350-040(5).

(8) Composting facilities - Permit application contents. The owner or operator of a composting facility shall obtain a solid waste permit from the jurisdictional health department. All applications for permits shall be submitted in accordance with the procedures established in WAC 173-350-710. In addition to the requirements of WAC 173-350-710 and 173-350-715, each application for a permit shall contain:

(a) Engineering reports/plans and specifications that address the design standards of subsection (3) of this section;

(b) A plan of operation meeting the requirements of subsection (4) of this section; and

(c) A closure plan meeting the requirements of subsection (6) of this section.

(9) Composting facilities - Construction records. The owner or operator of a composting facility shall provide copies of the construction record drawings for engineered facilities at the site and a report documenting facility construction, including the results of observations and testing carried out as part of the construction quality assurance plan, to the jurisdictional health department and the department. Facilities shall not commence operation until the jurisdictional health department has determined that the construction was completed in accordance with the approved engineering report/plans and specifications and has approved the construction documentation in writing.

(10) Composting facilities - Designation of composted materials. Composted materials meeting the limits for metals in Table A and the parameters of Table B of this section, and having a stability rating of very stable, stable, or moderately unstable as determined by the analysis required in subsection (4)(a)(viii)(D) of this section, shall no longer be considered a solid waste and shall no longer be subject to this chapter. Composted materials that do not meet these limits are still considered solid waste and are subject to management under chapter 70.95 RCW, Solid waste management -- Reduction and recycling.

TITLE 33
LEGISLATIVE RULE
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF WASTE MANAGEMENT

SERIES 3
YARD WASTE COMPOSTING RULE

§33-3-1. General.

1.1. Scope. -- This legislative rule establishes requirements for the proper handling and composting of yard waste including siting, bonding, design, construction, modification, operation, closure and permitting procedures pertaining to any facility or activity that generates, processes, composts or otherwise reuses or recycles yard waste by whatever means and sets forth requirements for operator training and certification.

1.2. Authority. -- W. Va. Code §20-11-8(c).

1.3. Filing Date. -- June 26, 2001.

1.4. Effective Date. -- June 26, 2001.

1.5. Legislative Mandate.

Effective January 1, 1997 it is unlawful to deposit yard waste, including grass clippings and leaves, in a solid waste facility in West Virginia: Provided, That such prohibitions do not apply to a facility designed specifically to compost yard waste or otherwise recycle or reuse such items: Provided, That reasonable and necessary exceptions to such prohibitions are included in subsection 3.1.c of this rule.

1.6. Incorporation by Reference.

Whenever federal or state statutes or rules are incorporated into this rule by reference, the reference is to the statute or rule in effect on the effective date of this rule.

§33-3-2. Definitions.

All definitions in W. Va. Code §22-15-2 and all definitions in §33CSR1 and §33CSR2 are fully incorporated into this rule by reference. The following additional definitions apply to this rule:

2.1. "Buffer Zone" means the distance between the composting operation and the adjacent property boundaries.

2.2. "Commercial Yard Waste Composting Facility" means any solid waste facility which is authorized to handle or accept up to thirty-six thousand (36,000) tons per year of yard waste and/or other compostable solid waste materials generated by sources other than the owner or operator of the facility, provided that, a commercial yard waste composting facility does not include an approved solid waste facility owned and operated by a person for the sole purpose of composting yard waste created by that person or other persons on a cost-sharing or nonprofit basis and shall not include land upon which finished compost is applied for use as a soil amendment/soil conditioner.

2.3. "Domestic yard waste" means yard wastes generated in small quantities by the resident or tenant of residential property.

2.4. "Non-residential composting activities" means a composting activity by persons such as landscape contractors, nurseries or greenhouses, lawn and garden companies, solid waste authorities and municipalities which are authorized to compost up to twelve thousand (12,000) tons per year of yard waste materials consisting of grass clippings, weeds, leaves, brush/shrub or tree prunings and other acceptable compostable materials which have been approved in writing by the Chief to produce a safe product for use as a soil amendment/soil conditioner.

2.5. "Nuisance" means any practice or condition created by a composting facility or activities which results in dust, dirt, mud, infectious molds, bacteria or fungi, or offensive odor, or attracts vectors such as insects, rodents, snakes or in any way interferes with the normal use of any properties or causes harm or injury to any person or the environment.

2.6. "Runoff" means any flowing water and associated contaminants originating from any part of the solid waste facility or activity that drains over the land.

2.7. "Run-on" means any rainwater, snow melt, wastewater, leachate or other liquid that drains over land onto any part of the compost facility.

2.8. "Soil amendment/soil conditioner" means an organic matter source or yard waste compost that when added to the soil improves the general physical, chemical and biological properties of the soil.

2.9. "Yard waste composting" means the controlled decomposition of yard waste to produce a stable and beneficial humus-like material.

2.10. "Yard waste" means grass clippings, weeds, leaves, brush, garden waste, shrub or tree prunings and other living or dead plant tissues, except that, such materials which, due to inadvertent contamination or mixture with other substances which render the waste unsuitable for composting, shall not be considered to be yard waste: Provided, That the same or similar waste generated by commercial agricultural enterprises is excluded.

2.11. "Windrow" means an elongated pile created by the placement of yard waste.

•33-3-3. Yard Waste Composting and Permitting Requirements.

3.1. Applicability.

3.1.a. This rule applies to all persons who handle or manage yard waste to produce compost and requires that:

3.1.a.1. Methods employed for yard waste composting must be consistent with section 4 of the Solid Waste Management Board's program for the ▪Proper Handling of Yard Waste,• dated May 1, 1993.

3.1.a.2. Yard wastes must not be combined with ▪sludge,• as defined in 33CSR1 section 2 of the Solid Waste Management Rule, ▪petroleum contaminated soil• or other solid waste materials specified by the Secretary.

3.1.a.3. A yard waste composting facility may not be situated atop a partially or fully closed solid

waste disposal area, unless approved by the Secretary in writing; An existing solid waste facility by minor permit modification may include yard waste composting operations.

3.1.b. Domestic Yard waste shall be disposed of in a manner consistent with one or any combination of the following options as provided for in W.Va. Code •20-11-8:

3.1.b.1. Disposal in a publicly or privately operated commercial or noncommercial composting facility or activity;

3.1.b.2. Disposal by composting on the property from which domestic yard waste is generated or on adjoining property or neighborhood property if consent is obtained from the owner of the adjoining or neighborhood property;

3.1.b.3. Disposal by open burning where such activity is not prohibited by the W. Va. Code, rules promulgated thereunder or municipal or county codes or ordinances.

3.1.c. Reasonable and Necessary Exceptions to Prohibition. Solid waste landfills may accept and dispose of domestic yard waste delivered to the facility by a municipality, solid waste hauler, resident or tenant when the Secretary determines that none of the options contained in subdivision 3.1.b are available.

3.2. Location Standards for Siting a Commercial Yard Waste Composting Facility.

3.2.a. The following location standards apply to commercial yard waste composting facilities, unless otherwise approved by the Secretary:

3.2.a.1. A yard waste composting facility shall be located in an area which has been authorized for composting facilities by the county and/or regional solid waste authority approved siting plan;

3.2.a.2. Yard waste composting facilities shall not be sited or constructed in areas subject to a one hundred year flood plain and no facility shall be closer than three hundred (300) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

3.2.a.3. Yard waste composting facilities shall not be located in areas which are geologically unstable or where the site topography exceeds six (6) percent grade;

3.2.a.4. Acceptable sites must have sufficient area and terrain to allow for proper management of run-on, runoff and leachate;

3.2.a.5. A yard waste composting facility shall not be located within two thousand (2,000) feet of any health care facility, school, church, or similar type of institution. The Secretary may reduce this setback distance if the owner or operator can successfully demonstrate that a nuisance will not be created due to the operation of the facility;

3.2.a.6. A yard waste composting facility shall not be located within two hundred (200) feet of drinking water supply wells and occupied dwellings;

3.2.a.7. A yard waste composting facility shall not be located within fifty (50) feet of a federal or state highway right-of-way or within twenty-five (25) feet of a city street right-of-way;

3.2.a.8. The operational area of a yard waste composting facility shall not be located within one hundred (100) feet of an adjacent property owner's boundary line;

3.2.a.9. A yard waste composting facility shall not be located on land where runoff drains into a sinkhole;

3.2.a.10. A yard waste composting facility shall not be located on land that has a seasonal high groundwater table (based on soil maps) less than two (2) feet from the land surface;

3.2.a.11. A yard waste composting facility shall not be located on land that has less than twenty (20) inches of soil over bedrock or on an impervious pan; and

3.2.a.12. A yard waste composting facility shall not be located within ten thousand (10,000) feet to the closest point of any airport runway used or planned to be used by turbojet aircraft or within five thousand (5,000) feet to the closest point of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created.

3.3. Location Standards for Siting Non-Residential Composting Activities.

3.3.a. The following location standards apply to non-residential composting activities:

3.3.a.1. Non-residential composting activities shall not be sited or constructed in areas closer than one hundred (100) feet to any regularly flowing stream, perennial stream, pond, lake, wetland or spring;

3.3.a.2. Non-residential composting activities shall have sufficient area and terrain to allow for the proper management of run-on, runoff and leachate;

3.3.a.3. Non-residential composting activities shall not be located within one hundred (100) feet of an adjacent property owner's boundary line without obtaining prior written permission from the adjacent property owner;

3.3.a.4. Non-residential composting activities shall not be located within one hundred (100) feet of a sinkhole; and

3.3.a.5. Non-residential composting activities shall not exceed five (5) acres in size without written approval from the Secretary.

3.3.b. Compliance with any of the location standards for yard waste composting facilities or activities in this rule does not relieve the owner or operator from compliance with all other codes, ordinances or rules.

3.4. Design and Construction of Commercial Yard Waste Composting Facility.

3.4.a. A handling area and proper equip-ment shall be provided to segregate waste other than yard waste and non-compostable components in the yard waste and to store such components in properly constructed containers prior to their disposal at a permitted solid waste disposal facility.

3.4.b. If the yard waste composting facility is located in any area where the seasonal high water table (based on soil maps) lies within five (5) feet of the ground surface, the composting and handling areas shall be hard-surfaced in a manner acceptable to the Secretary and diked to prevent entry of run-on or escape of runoff and other liquids, and a sump with an adequately sized pump located at the low point of the hard-surface area shall be provided to convey liquids to a wastewater treatment, disposal or holding facility.

3.4.c. Accepted engineering practices shall be incorporated into the design of facilities located on sites with:

3.4.c.1. Springs, seeps, and other groundwater intrusions;

3.4.c.2. Gas, water, phone, sewage lines or other utilities under the active areas; or

3.4.c.3. Electrical transmission lines above or below the active areas; and

3.4.c.4. Additional design and construction considerations.

3.4.c.4.A. Areas used for mixing, curing, and storing of compost shall be graded to prevent run-on, collect runoff, and provided with a drainage system to route the collected runoff to a wastewater storage, treatment, or disposal facility.

3.4.c.4.B. A buffer zone with the minimum width of one hundred (100) feet shall be incorporated in the facility design between facility adjacent property boundaries and the operational areas of the facility.

3.4.c.4.C. Roads serving the unloading, handling, composting, and storage areas shall be of all-weather construction and the design features for each shall be shown on drawings submitted to the Department of Environmental Protection in the application.

3.4.c.4.D. The design of a commercial yard waste composting facility shall be signed and sealed by a W. Va. registered professional engineer.

3.5. Permits Required.

3.5.a. Applicability.

No person may establish, install, construct or operate the following:

3.5.a.1. A commercial yard waste composting facility without obtaining a solid waste facility permit from the Department of Environmental Protection, provided that first, the applicant fulfills the pre-siting requirements of subsection 3.4 of the West Virginia Solid Waste Management Rule, 33CSR1; or

3.5.a.2. A non-residential composting activity without the property owner/operator obtaining a registration number from the Department of Environmental Protection, Division of Waste Management, Solid Waste Management Section.

3.5.b. Exemptions.

Residential and non-residential composting activities are exempt from obtaining a commercial solid waste facility permit. However, the non-residential activity shall be located and operated in compliance with the location standards and the operational requirements as set forth in subsections 3.3 and 3.8 of this rule.

3.6. Permit Application Requirements.

3.6.a. The applicant for a permit to establish, install, construct, operate and close a commercial yard waste composting facility shall include in the permit application the following:

3.6.a.1. A copy of the Certificate of Convenience and Necessity (CON) obtained from the WV Public Service Commission;

3.6.a.2. A copy of the Certificate of Siting Approval;

3.6.a.3. The name, address, and location of the proposed facility;

3.6.a.4. The proposed operator's and owner's name, address, telephone number, ownership status, and status as a federal, state, private, public or other entity;

3.6.a.5. A copy of legal documents demonstrating that the applicant has legal right to enter and conduct commercial yard waste composting operations on the property including a copy of the deed description or lease agreement;

3.6.a.6. A safety program designed to prevent hazards and accidents at the proposed facility;

3.6.a.7. Proof of liability insurance to cover the operations of the proposed facility; and

3.6.a.8. A detailed description of the activities to be conducted by the applicant at the facility.

3.6.b. An engineering report for an application to obtain a permit to construct shall contain, at a minimum, the following:

3.6.b.1. A regional map, or maps, (of appropriate scale) that delineate the entire service area of the proposed facility (both existing and proposed); existing and proposed collection, processing, and disposal operations; the location of the closest population centers; and the transportation systems including highways, airports, railways and waterways;

3.6.b.2. A vicinity map (minimum scale of 1"=2000') that delineates the area within one mile of the facility boundaries, zoning and land uses, residences, surface waters, access roads, bridges, railroads, airports, historic sites, and other existing and proposed manmade or natural features relating to the project;

3.6.b.3. A site plan (minimum scale of 1"=200') with five foot contour intervals that delineates property boundaries, the location of existing and proposed soil boring, monitoring wells, buildings and appurtenances, fences, gates, roads, parking areas, drainage, culverts, storage facilities or areas, loading areas; existing and proposed elevation contours and direction of prevailing winds; and the location of residences, potable wells, surface water bodies, wetlands, and drainage swales located within the site and in the site plan area;

3.6.b.4. A detailed description of the operation of the facility including precautions or procedures for operation during heavy winds, thunderstorms, snowstorms, prolonged freezing conditions and an operational narrative describing the following:

3.6.b.4.A. Collection methods to be employed;

3.6.b.4.B. Methods to be utilized in constructing compost piles or windrows, including equipment;

3.6.b.4.C. Proposed dimensions of compost piles or windrow;

3.6.b.4.D. A source of supplemental water to maintain an optimal moisture content of

compost piles or windrows;

3.6.b.4.E. Proposed turning frequency, including the method for determining that frequency;

3.6.b.4.F. Proposed duration of the composting process, including curing or storage time, and the term of compost distribution;

3.6.b.4.G. A distribution plan for the yard waste compost;

3.6.b.4.H. A residue disposal plan including the location of disposal site(s);

3.6.b.4.I. Provisions for emergency response; and

3.6.b.4.J. A public information and education program;

3.6.b.5. A schedule of operation, including the days and hours that the facility will be open, preparations before opening, and procedures followed after closing for the day;

3.6.b.6. Anticipated daily traffic flow to and from the facility;

3.6.b.7. A description of the ultimate use for the finished yard waste compost, method for removal from the site, and a plan for use or disposal of any yard waste compost that cannot be used in the expected manner due to poor quality or change in market conditions;

3.6.b.8. Identification of the personnel required to operate and maintain the facility and their job descriptions and responsibilities;

3.6.b.9. A detailed description of the origin, quality, quantity, and type of yard waste anticipated to be received at the proposed facility. The quantity of yard waste anticipated to be received shall be estimated in both cubic yards and tonnage, and the maximum amount of compost estimated to be produced daily, monthly and annually shall be stated;

3.6.b.10. Contingency plans detailing corrective (or remedial) action to be taken in the event of equipment breakdown; air pollution (odors); unacceptable waste delivered to the facility; groundwater contamination; spills; and undesirable conditions such as fires, dust, noise, vectors, lack of a market for the yard waste compost product and unusual traffic conditions;

3.6.b.11. The procedures for the development of an operations manual. The manual must contain general design information, detailed operational information and instructions including methods of monitoring for moisture, temperature, and other quality control measures during the composting process. In addition, the manual must outline the specific procedures to be used in monitoring, sampling and analyzing finished compost material, which must be acceptable to the Secretary, provided that, as a minimum the finished compost material shall be analyzed by an approved EPA method for the concentration levels of heavy metals prior to its use. If any heavy metal concentration level exceeds regulatory standards, the finished compost material must be disposed of in an approved landfill; and

3.6.b.12. A detailed description of the yard waste composting technology to be utilized at the proposed facility.

3.6.c. Six (6) copies of the application, including all supporting documents shall be submitted as

follows: four (4) copies shall be filed with the Department of Environmental Protection, Division of Waste Management, Solid Waste Management Section, one (1) copy shall be submitted to the Solid Waste Management Board, and one copy shall be submitted to the county or regional solid waste authority for the area in which the proposed facility is to be located.

3.7. Permit Application Fees.

3.7.a. Each application filed for a commercial yard waste composting facility permit must be accompanied by a nonrefundable application fee made payable to the Department of Environmental Protection in the amount of five hundred (500) dollars.

3.7.b. The Department of Environmental Protection may require a fee of fifty (50) dollars or ten (10) percent of the application fee for any application refiled due to incompleteness.

3.8. Operational Requirements for Commercial Yard Waste Composting Facilities and Non-Residential Composting Activities.

3.8.a. The addition of any other solid waste including but not limited to hazardous, sludges, infectious, construction debris, demolition, industrial or other municipal solid waste to the yard waste is strictly prohibited.

3.8.b. Waste other than yard waste and non-compostable solid wastes shall be segregated from the compostable yard waste and promptly removed from the site for proper disposal at an approved facility. Segregated solid waste shall be removed from the facility at the end of each working day unless it is stored in containers specifically designed for storage of solid waste, provided that the material shall not remain at the facility more than thirty (30) days.

3.8.c. Screening and removal of non-compostable solid wastes from the windrows or compost piles shall occur after the composting process is completed.

3.8.d. Access to a yard waste composting facility is allowed only when an attendant is on duty.

3.8.e. Any nuisance created by a commercial yard waste composting facility or a non-residential composting activity which causes harm or injury to any person or the environment shall be abated or the composting facility or activity may be required by the Secretary to cease and desist operations.

3.8.f. Shrubs, brush, tree prunings or any other bulky, woody type materials shall be shredded, ground or otherwise reduced in size prior to being mixed with other yard wastes to be composted.

3.8.g. The operator of a yard waste composting facility shall implement, and enforce a safety program designed to prevent hazards and accidents.

3.8.h. Open burning is prohibited, except as provided by paragraph 3.1.b.3 of this rule.

3.8.i. Fugitive dust and mud deposits on main off-site roads and access roads shall be minimized at all times to limit nuisances and the operator must immediately abate any nuisances.

3.8.j. Leachate or other runoff from a compost facility shall not be permitted to drain or discharge into surface waters except when authorized under a West Virginia NPDES permit issued by the Department of Environmental Protection.

3.8.k. A one hundred (100) foot buffer zone shall be provided and maintained in a manner acceptable to the Secretary.

3.9. Other Acceptable Compostable Materials.

3.9.a. Other acceptable compostable materials may include, but are not limited to, coffee grounds, kitchen scraps, pet and human hair, shredded newspapers, lint and sweepings, wood ashes, fish and poultry carcasses/litter, and animal manures.

3.10. Incorporation by Reference.

3.10.a. The following subsections of the West Virginia Solid Waste Management, 47 CSR 38, Rule, 33CSR1 are hereby incorporated and implemented as a part of this yard waste composting rule and apply only to commercial yard waste composting facilities:

3.10.a.1. Subsection 3.4; "Pre-Siting Requirement for Commercial Solid Waste Facilities";

3.10.a.2. Subsection 3.13; "Bonding and Financial Assurance";

3.10.a.3. Subsection 3.17; "Draft Permit";

3.10.a.4. Subsection 3.18; "Permit Modification, Suspension and Revocation";

3.10.a.5. Subsection 3.19; "Transfer of permit";

3.10.a.6. Subsection 3.20; "Permit Renewal";

3.10.a.7. Subsection 3.21; "Public Notice";

3.10.a.8. Subsection 3.22; "Public Comments and Request for Public Hearings";

3.10.a.9. Subsection 3.23; "Public Hearings";

3.10.a.10. Subsection 3.24; "Reopening of the Public Comment Period";

3.10.a.11. Subsection 3.25; "Public Participation File";

3.10.a.12. Subsection 3.26; "Public Availability of Information";

3.10.a.13. Subsection 3.27; "Issuance and Effective Date of Permit";

3.10.a.14. Subsection 3.28; "Permit Review by the Secretary";

3.10.a.15. Subsection 3.29; "Appeals";

3.10.a.16. Subsection 4.5.5; "Quality Assurance and Quality Control" (applicable portions only);

3.10.a.17. Subsection 4.8; "Leachate Management"; and

3.10.a.18. Subsection 4.12; "Reporting.•

•33-3-4. Closure Requirements for a Commercial Yard Waste Composting Facility.

4.1. Maintenance Minimization.

The owner or operator shall close the facility in a manner that minimizes the need for further maintenance. All solid waste, compost, and residues shall be removed and disposed in a permitted solid waste disposal facility.

4.2. Closure Plan and Closure Plan Amendments.

The owner or operator of a commercial yard waste composting facility shall have a written closure plan.

4.2.a. Closure Plan Inclusions.

4.2.a.1. This plan shall identify the steps necessary to completely close the facility at the time when its operation is most extensive or operating at peak capacity. The closure plan must include, at a minimum, a schedule for final closure, the anticipated date when wastes will no longer be received, the date when completion of final closure is anticipated, and intervening milestone dates which will allow tracking of the progress of closure.

4.2.a.2. The closure plan shall be submitted to the Department of Environmental Protection as a part of the application for a permit. If the Secretary finds the closure plan is deficient, the closure plan shall be amended by the owner or operator within ninety (90) days of the Secretary•s finding. The permit will not be issued by the Department of Environmental Protection until the amended plan meets the closure requirements.

4.2.b. Closure Plan Amendments.

4.2.b.1. The owner or operator shall update the closure plan with any changes in operation or facility design that affects the closure plan. The updated plan shall be submitted to the Department of Environmental Protection for approval fifteen (15) days prior to such changes. The Secretary may require modifications to any updated plan which does not meet the closure requirements.

4.2.b.2. At any time during the operating life of the facility, the amended closure plan shall be made available to the Department of Environmental Protection or the county or regional solid waste authority upon request.

4.3. Time Allowed for Closure.

The owner or operator shall complete closure activities in accordance with the approved closure plan and within six months after receiving the final volume of wastes. The Secretary may approve a longer closure period if the owner or operator can demonstrate that the required or planned closure activities will, of necessity, take longer than six months to complete; and that he or she has taken all necessary steps to eliminate any threat to human health and the environment from the unclosed but inactive facility.

4.3.a. At least thirty (30) days prior to the beginning of closure activities, the owner or operator shall post a sign at all points of access to the facility notifying all persons of the closing, and state that further receipt of waste materials is prohibited. Further, upon closure, suitable barriers shall be installed at all former access points to prevent new waste from being deposited.

4.3.b. Notice of the upcoming closure is a Class II legal advertisement which must be published in a local newspaper at least thirty (30) days prior to closure and a copy of the notice must be provided to the Secretary within ten (10) days of the date of publication.

4.4. Site Reclamation Responsibilities.

A uniform and compacted layer of soil that is at least six (6) inches in thickness and capable of supporting revegetation shall be placed over all disturbed land surface areas within the facility's boundaries. A revegetation plan shall be a part of the closure plan requirements and must conform with the provisions of subdivision 4.5.f of 33CSR1, the Solid Waste Management Rule.

4.5. Evidence of Proper Closure.

A compost facility shall be considered properly closed when the actions required by subsection 4.4 of this rule have been taken by the owner or operator and duly authorized representatives of the Secretary verify compliance by an on-site inspection and provide a written confirmation that closure has been completed properly.

•33-3-5. Commercial Yard Waste Composting Operator Training and Certification Program.

5.1. Experience, Training and Education.

In order to ensure the proper, safe and efficient composting of yard waste, operators of commercial yard waste composting facilities must have a minimum of two (2) years on the job experience in yard waste composting or receive training and education in yard waste composting. The training and education shall consist of but not be limited to forty (40) classroom hours. Topics should include:

5.1.a. Proper and safe equipment operation and equipment preventive maintenance; and

5.1.b. Composting science technology which encompasses the composting process, composting methods, composting operations, site and environmental considerations, facility design and use, compost quality control, using and marketing compost, composting economics, record keeping and reporting, worker safety, business math and volumetric calculations.

5.2. Approved Training and Education Programs.

Training and education for yard waste composting shall include programs sponsored by, but not limited to, colleges and universities, agricultural extension services, and county or regional solid waste authorities: Provided that all training and education programs must be approved by the Department of Environmental Protection, Division of Waste Management.

5.3. Certification.

Any person who meets the requirements as listed in subsection 5.1 of this rule is considered a certified yard waste composting operator, provided that, written verification of on the job experience or training and education is properly submitted to, and approved by the Department of Environmental Protection.

NR 502.12 Yard, farm and vegetable food waste composting facilities. (1) GENERAL. No person may operate or maintain a solid waste composting facility for yard waste, clean chipped wood, farm crop residue, farm animal manure, animal carcasses or vegetable food waste, except in accordance with the following requirements:
(a) Unless exempt under sub. (2), comply with the performance standards in s. NR 502.04 (1) and operate the facility in a nuisance−free and environmentally sound manner.
(b) Unless exempt under sub. (2), (3) or (4), comply with the closure requirements in s. NR 502.04 (3) (a) and (b), and the minimum operational and design standards in subs. (10) and (11).
(c) Unless exempt under sub. (2), (3), (4) or (5), obtain an operating license from the department.
(d) Unless exempt under sub. (2), (3), (4) or (5), owners and operators of new or expanded facilities regulated under this section shall comply with the initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with the locational criteria in sub. (8).
(e) Unless exempt under sub. (2), (3), (4), (5), (6) or (7), comply with all of the following:
1. The requirements in s. NR 502.04 (3) (c), (4), (5) and (6).
2. The additional operational and design standards in sub. (12).
3. Obtain a plan of operation approval and a construction documentation approval as specified in subs. (13) and (14).
4. The monitoring and reporting requirements specified in sub. (15).
(f) Unless exempt under sub. (2), (3), (4), (5), (6) or (7), owners and operators of new or expanded facilities regulated under this section shall comply with the initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with the locational criteria in sub. (9).
Note: Facilities for composting waste types other than yard waste, clean chipped wood, farm crop residue, farm animal manure, animal carcasses or vegetable food waste are regulated under s. NR 502.08. Local ordinances may apply to facilities regulated under this section. Tables summarizing applicable requirements are provided at the end of the section.
(2) HOUSEHOLD EXEMPTION. Facilities for composting only solid waste from a single family or household, a member of which is the owner, occupant or lessee of the property where the facility is located, are exempt from the requirements of s. NR 502.04, the licensing requirement and all requirements of this chapter, provided the facility is operated in a nuisance−free and environmentally sound manner.
(3) EXEMPTION FOR YARD AND VEGETABLE FOOD WASTE COMPOSTING FACILITIES WITH CAPACITY OF 50 CUBIC YARDS OR LESS.
Facilities for composting yard waste, clean chipped wood waste, vegetable food waste or manure which do not exceed 50 cubic yards at one time are exempt from the requirements specified in s. NR 502.04 (2) to (6), locational criteria, plan of operation submittal, licensing and all other requirements of this chapter provided all of the following requirements are met:
(a) The requirements specified in s. NR 502.04 (1).
(b) The facility is operated in a nuisance−free and environmentally sound manner.
(4) EXEMPTION FOR FARM CROP RESIDUE OR MANURE COMPOSTING FACILITIES. Facilities for on site composting of farm crop residue or manure directly from agricultural operations are exempt from the requirements of s. NR 502.04 (2) to (6), locational criteria, plan of operation submittal, licensing and all other requirements of this chapter, provided all of the following requirements are met:
(a) The performance standards in s. NR 502.04 (1).
(b) The facility is operated in a nuisance−free and environmentally sound manner.
(c) All the farm crop residue and manure composted are generated from agricultural operations either under common ownership, common management or located adjacent to each other.
(d) The compost is utilized for agricultural landspreading, at the same farm or at another farm, in accordance with s. NR 518.04 (1) (b) or (i).
(e) If yard waste or clean chipped wood are accepted from off site, the following requirements shall be met:
1. The minimum operational and design standards in subs. (10) and (11).

2. The yard waste and clean chipped wood shall be mixed with manure to increase the carbon to nitrogen ratio and the porosity of the composting process.
3. The combined volume of farm crop residue, farm animal manure, yard waste and clean chipped wood on site at one time may not exceed 10,000 cubic yards, including collected feedstocks, the composting process and finished compost.
Note: Animal manure management is also regulated under ch. NR 243. Public distribution of the compost may be regulated by the department of agriculture, trade and consumer protection (DATCP). Local ordinances may apply to facilities regulated under this section. The following landspreading operations are exempt under s. NR 518.04 (1) (b), (h) and (i), respectively, provided the material is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices and the facility is operated and maintained in a safe, nuisance−free manner:
−Farms on which only nonhazardous agricultural solid wastes resulting from the operation of a farm, including farm animal manure, are disposed.
−Landspreading of uncomposted yard waste.
−Landspreading composted leaves, grass, brush, vegetable food waste and other similar vegetable matter.
(5) EXEMPTION FOR ON SITE FARM ANIMAL CARCASS COMPOSTING FACILITIES. Facilities for on site farm composting of animal carcasses are exempt from the requirements in s. NR 502.04 (2) to (6), locational criteria, plan of operation submittal, licensing and all other requirements of this section, provided they are in compliance with s. 95.50 (1), Stats., and all of the following:
(a) The performance standards in s. NR 502.04 (1).
(b) The minimum operational and design standards in subs. (10) and (11).
(c) Only animal carcasses, farm animal manure, farm crop residue, yard waste and clean chipped wood are composted at the facility.
(d) All the farm wastes composted are generated from agricultural operations either under common ownership, common management or located adjacent to each other.
(e) The compost is utilized for agricultural landspreading, at the same farm or at another farm, in accordance with s. NR 518.04 (1) (b) or (i).
(f) If yard waste or clean chipped wood are accepted from off site, the following requirements shall be met:
1. The yard waste or clean chipped wood shall be mixed with farm wastes to increase the carbon to nitrogen ratio and porosity of the composting process.
2. The combined volume of animal carcasses, farm animal manure, farm crop residue, yard waste and clean chipped wood on site at one time may not exceed 10,000 cubic yards, including collected feedstocks, the composting process and finished compost.
(6) EXEMPTION FOR YARD WASTE COMPOSTING FACILITIES WITH CAPACITY OF 20,000 CUBIC YARDS OR LESS. Facilities for composting yard waste and clean chipped wood waste which do not exceed 20,000 cubic yards at one time are exempt from the requirements in s. NR 502.04 (3) (c), (4), (5) and (6), plan of operation submittal and all other requirements of this chapter, provided all of the following requirements are met:
(a) The performance standards and closure requirements in s. NR 502.04 (1) and (3) (a) and (b).
(b) New or expanded facilities shall comply with the initial site inspection requirements in s. NR 502.04 (2) and demonstrate compliance with the locational criteria in sub. (8).
(c) The minimum operational and design standards in subs. (10) and (11).
(d) An operating license for the facility is issued by the department.
(e) The compost is utilized for landspreading, either on site or off site, in accordance with s. NR 518.04 (1) (i).
(7) EXEMPTION FOR VEGETABLE FOOD COMPOSTING FACILITIES OF 500 CUBIC YARDS OR LESS. Facilities for composting vegetable food waste which do not exceed 500 cubic yards at one time are exempt from the requirements in s. NR 502.04 (3) (c), (4), (5) and (6), plan of operation submittal and all other requirements of this section, provided all of the following requirements are met:
(a) The requirements in s. NR 502.04 (1) and (3) (a) and (b).
(b) New or expanded facilities shall comply with s. NR 502.04 (2) and demonstrate compliance with the locational criteria in sub. (8).
(c) The minimum operational and design standards in subs. (10) and (11).
(d) An operating license for the facility is issued by the department.
(e) The compost is utilized for landspreading, either on site or off site, in accordance with s. NR 518.04 (1) (i).
(f) Only vegetable food waste, yard waste and clean chipped wood are composted at the facility.

(8) LOCATIONAL CRITERIA FOR EXEMPT YARD WASTE COMPOSTING FACILITIES AND EXEMPT VEGETABLE FOOD WASTE COMPOSTING FACILITIES. (a) Facilities described in sub. (6) or (7) may not be located in any of the following areas unless an exemption has been granted in writing by the department under par. (b):
1. Within a floodplain.
2. Within 5 feet of the seasonal high groundwater table.
3. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
4. Within 250 feet of any navigable lake, pond or flowage.
5. Within 250 feet of any navigable river or stream.
6. Within 100 feet of land owned by a person other than the owner or operator of the facility.
7. Within 1,000 feet of the nearest edge of the right−of−way of any state trunk highway, interstate or federal aid primary highway or the boundary of any public park or state natural area under ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.
8. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.
(b) The department may grant exemptions from par. (a) 2. to 8., only upon demonstration by the applicant of circumstances which warrant the exemption. Exemption from compliance with par. (a) 1. may not be granted.
(9) LOCATIONAL CRITERIA FOR NONEXEMPT COMPOSTING FACILITIES.
(a) Unless exempt under sub. (2), (3), (4), (5), (6) or (7), new or expanded composting facilities regulated under this section may not be located in any of the following areas unless an exemption
has been granted in writing by the department under par. (b):
1. Within a floodplain.
2. Within 5 feet of the seasonal high groundwater table.
3. Within 250 feet of any private water supply well, or within 1,200 feet of any public water supply well.
4. Within 500 feet of any navigable lake, pond or flowage.
5. Within 250 feet of any navigable river or stream.
6. Within 250 feet of land owned by a person other than the owner or operator of the facility.
7. Within 1,000 feet of the nearest edge of the right−of−way of any state trunk highway, interstate or federal−aid primary highway or the boundary of any public park or state natural area under
ss. 23.27 (1) and 23.28 (1), Stats., unless the facility is screened by natural objects, plantings, fences or other appropriate means so that it is not visible from the highway, park or state natural area.
8. Within 10,000 feet of any airport runway used or planned to be used by turbojet aircraft or within 5,000 feet of any airport runway used only by piston type aircraft or within other areas where a substantial bird hazard to aircraft would be created. This criterion is applicable only when the facility will be used for handling putrescible waste.
(b) The department may grant exemptions from par. (a) 2. to 8. only upon demonstration by the applicant of circumstances which warrant the exemption. Exemption from compliance with par. (a) 1. may not be granted.
(10) MINIMUM OPERATIONAL STANDARDS FOR COMPOSTING FACILITIES. Unless exempt under sub. (2), (3) or (4), no person may operate or maintain a composting facility regulated under this section except in accordance with the following minimum operational requirements:
(a) Wastes accepted for composting shall be source separated at the point of generation so that the wastes have not been mixed or otherwise contaminated with nonapproved waste types, particularly
materials which are not readily biodegradable. Prior to incorporation into the composting process, the wastes shall be sorted as needed to ensure that materials which are not readily biodegradable are removed unless alternate operational methods are used in conjunction with equipment to produce a compost product virtually free of physical and chemical contaminants.
Note: Compost product which contains physical or chemical contaminants of concern, such as plastic, glass, metal scraps or heavy metals, may require controlled disposal under an approved landspreading plan or at a landfill.
(b) Wastes shall be debagged within 24 hours of receipt at the facility. Stored waste shall be managed in accordance with the requirements applicable to the composting process. The following operational standards shall also be met for the wastes specified:

1. Grass clippings, manure and food waste from canned, frozen or preserved fruit or vegetable processing operations shall be incorporated into windrows or other composting process within
72 hours of receipt at the facility, unless odor becomes a problem at the facility in which case these wastes shall be incorporated within 24 hours.
2. Animal carcasses and food waste which is not from canned, frozen or preserved fruit or vegetable processing operations shall be incorporated into windrows or other composting process on the same operating day as received at the facility. Upon initial incorporation of animal carcasses or these food wastes, composting windrows or piles shall be covered with a minimum 6 inch layer of compost, high carbon material such as wood chips, or other suitable material to control odor and vectors.
3. All animal carcasses and food waste shall be managed to prevent dogs and wild animals from reaching the wastes.
(c) Yard waste, wood waste, vegetable food waste, animal carcasses and crop residue shall be size reduced if necessary to provide adequate particle surface area for effective composting.
(d) Materials within the composting process shall be thoroughly mixed and aerated as frequently as necessary to ensure that adequate oxygen is available at all times within the waste to prevent the process from becoming anaerobic.
Note: To maintain aerobic composting and prevent odor, aeration is needed whenever the process temperature rises to 150_F or more, or when the oxygen level drops to 15% or less. Windrows consisting primarily of leaves and wood waste are likely to require turning at least monthly from spring through fall.
(e) Materials shall be mixed into the composting process to provide a minimum carbon to nitrogen ratio of 12:1.
Note: For aerobic composting, the optimum carbon to nitrogen ratio ranges from approximately 20:1 to 40:1.
(f) Maximum windrow size and minimum windrow spacing shall match the capability and requirements of the equipment utilized at the facility.
(g) Material within the composting process shall be wetted as needed to control dust and maintain a moisture content conducive to efficient composting.
Note: For aerobic composting, the optimum moisture content is 50 to 60% by weight.
(h) Materials resulting from composting shall be:
1. Stabilized to eliminate pathogenic organisms and to ensure that the materials do not reheat upon standing.
2. Free of sharp particles which could cause injury to persons handling the material.
3. Free of toxins which could cause detrimental impacts to public health or the environment.
Note: Pathogens are defined in ch. NR 204 as “disease causing organisms, including but not limited to certain bacteria, protozoa, viruses and viable helminth ova.” Appropriate methods for pathogen elimination during composting are specified in 40 CFR, Part 257, Appendix II, Section B:
1. For in−vessel or static aerated pile composting, maintain a continuous minimum temperature of 55_C, or 131_F, for a minimum of 3 consecutive days.
2. For windrow composting, attain a minimum temperature of 55_C, or 131_F, on a minimum of 15 days, which are not required to be consecutive, and turn the windrow a minimum of 5 times during the high temperature periods.
(i) Compost product storage time shall be minimized to maintain the quality of the compost and the product shall be marketed as necessary to prevent excessive stockpiling.
(j) The facility shall be operated in a nuisance−free and environmentally sound manner.
Note: Landspreading of composted leaves, grass, brush, vegetable food waste and other similar vegetable matter is exempt from department landspreading regulations under s. NR 518.04(1)(i) provided the material is applied as a soil conditioner or fertilizer in accordance with accepted agricultural practices and the facility is operated and maintained in a safe, nuisance−free manner. Public distribution of the compost may be regulated by the department of agriculture, trade and consumer protection (DATCP).
(11) MINIMUM DESIGN STANDARDS FOR COMPOSTING FACILITIES.
Unless exempt under sub. (2), (3) or (4), no person may construct or maintain a composting facility regulated under this section except in accordance with the following minimum design standards:
(a) Run−off from the composting area shall be discharged to a gentle sloping grassed area of sufficient size to prevent erosion and surface discharge from the composting area.
(b) Slope, vegetation and surface water containment ditches and retention basins shall be used at the facility as needed to minimize erosion.

(c) Composting shall take place on an area sloped sufficiently to prevent ponding, and measures such as berms or ditches shall be used to prevent storm water run−on.
(d) The overall composting facility size shall be based on the process residence times for the materials to be composted.
(12) ADDITIONAL OPERATIONAL AND DESIGN STANDARDS FOR NONEXEMPT COMPOSTING FACILITIES. Unless exempt under sub. (2), (3), (4), (5), (6) or (7), new or expanded composting facilities regulated under this section shall comply with the following additional
operational and design standards:
(a) All run−off that contacts waste shall be managed as leachate and shall be directed to either a collection basin or a tank. Leachate may be used in the composting operation for moisture addition.
All other leachate shall be treated at a wastewater treatment facility permitted to accept it.
(b) All composting, and storage of waste materials and compost, shall take place on a low permeability pad constructed of either asphalt, concrete, recompacted clay or other material approved by the department.
(c) At a minimum, the leachate collection capacity shall be designed for a 25 year, 24 hour storm event as defined in s. NR 205.05.
(13) PLAN SUBMITTAL REQUIREMENTS FOR NONEXEMPT COMPOSTING FACILITIES. Unless the facility is exempt under sub. (2), (3), (4), (5), (6) or (7), applicants for all new or expanded composting facilities regulated under this section shall submit a plan of operation report and obtain department approval of the plan of operation report prior to construction of the new or expanded
facility. Unless an exemption is granted by the department in writing, the plan shall be submitted in accordance with s. NR 500.05, provide a design which complies with subs. (10), (11) and (12), and contain the following minimum information:
(a) The location of the property where the facility is proposed to be located.
(b) A brief description of the project, including the area served, an estimate of the total volume of material to be processed and the types of waste feedstocks to be composted.
(c) A description and drawing of the proposed facility, including location and size of windrows, or other composting process, on site traffic and process flow, the property boundaries, routes to transport fedstocks and finished compost to and from the facility and present land use within 1/4 mile of the facility.
(d) A description of the procedures for processing the material prior to incorporation into the windrow, or other composting process, such as de−bagging or size reduction.
(e) For each waste feedstock proposed to be composted, either laboratory or literature data documenting the carbon, nitrogen, phosphorus and potassium content and pH.
(f) A proposed feedstock mix for composting, with calculations or laboratory data documenting the carbon, nitrogen, phosphorus and potassium content and pH of the mix.
(g) A specification of the maximum size, including volume, height and width, for staging piles, composting windrows or other composting processes, curing piles, and finished compost storage.
If the waste on site at any one time will exceed either 40,000 cubic yards of yard waste and clean chipped wood or 1,000 cubic yards of vegetable food waste, an estimate of closure costs shall be provided with the plan of operation report, and prior to licensure, proof of financial responsibility shall be provided for the closure costs, including the removal, transport and ultimate disposal of all
waste material and compost at the site.
(h) A specification of the methods of measuring critical parameters within the windrow and other composting processes, and a description of methods to ensure the critical parameters are met. Critical parameters addressed shall include carbon to nitrogen ratio, temperature, moisture content, pH and stability. Actions to be taken in response to odors shall be specified. Frequency of turning and residence times shall be specified.
(i) A description of the type of vehicles used for transporting feedstocks and finished compost to and from the facility, and a description of the type of equipment for turning or mixing and screening.
(j) A discussion of potential markets for the compost and material specifications necessary to be met for these markets, such as nutrient content, pH, particle size, appearance, moisture holding capacity or other pertinent specifications.
(k) Identification of any noncompostable waste, such as bags, which will be generated from the composting operation, and the name and location of solid waste disposal facilities at which any
waste generated from the composting operation will be disposed.

(L) Specification of the design, construction and documentation to be used for the low permeability pad, including materials, thicknesses and testing.

(14) CONSTRUCTION DOCUMENTATION FOR NONEXEMPT COMPOSTING FACILITIES. (a) Unless exempt under sub. (2), (3), (4), (5), (6) or (7), owners and operators of new or expanded composting facilities regulated under this section shall submit a construction documentation report to the department and obtain department approval of the construction documentation report prior to operation of the facility.

(b) Unless an exemption is granted by the department in writing, the construction documentation report shall be prepared in accordance with the department's plan approval and the requirements in s. NR 500.05. The construction documentation report shall be approved by the department prior to obtaining a license and prior to accepting waste at the facility.

(15) MONITORING AND REPORTING FOR NONEXEMPT COMPOSTING FACILITIES. Unless exempt under sub. (2), (3), (4), (5), (6) or (7), owners and operators of new or expanded composting facilities regulated under this section shall complete monitoring and reporting in accordance with the plan of operation approval and the following requirements:

(a) Samples of the finished compost shall be collected each 1,000 cubic yards or 3 times per year, which ever is more frequent. The samples shall be tested for carbon, nitrogen, phosphorus, potassium and pH.

(b) Unfiltered leachate samples shall be taken from the collection basin or tank, and tested quarterly for the first 4 quarters and annually thereafter for BOD5, COD, field pH, field conductivity corrected to 25_C, nitrates, and total dissolved solids.

Note: Tables 1 and 2 summarize the requirements contained in this section for general information only and are not intended to replace the requirements contained in this chapter.

Table 1.
Summary of locational criteria for composting facilities

	Set back distance (feet)							
	Water Supply Wells					Property		
Facility Type	Groundwater	Public	Private	Lake	River	Line	Highways	Airport
Less than 20,000 c.y. yard waste	5	1200	250	250	250	100	1000	none
Less than 500 c.y. vegetable food waste	5	1200	250	250	250	100	1000	5,000/10,000
Greater or equal to 20,000 c.y. yard waste	5	1200	250	500	250	250	1000	none
Greater or equal to 500 c.y. vegetable food waste	5	1200	250	500	250	250	1000	5,000/10,000

Note: Composting facilities may not be located within a floodplain. Locational criteria do not apply to the following types of composting facilities: single family, less than 50 c.y. yard & food wastes, on site farm crop residue & manure, and on site farm animal carcasses.

Table 2.
Summary of requirements for composting facilities

Facility Type	General s. NR 502.04	Operating License	Minimum Operation & Design s. NR 502.12 (10) & (11)
Single family	none	no	no
Less than 50 c.y. yard & food	sub. (1)	no	no
On site farm crop residue & manure	sub. (1)	no	no
On site farm animal carcasses	sub. (1)	no	yes
Less than 20,000 c.y. yard waste	subs. (1), (2), (3) (a) & (b)	yes	yes
Less than 500 c.y. vegetable food waste	subs. (1), (2), (3) (a) & (b)	yes	yes

Note: Additional operation and design, plan submittal, construction documentation and monitoring and reporting requirements in s. NR 502.12 (12) to (15) apply to the following composting facilities: greater or equal to 20,000 c.y. yard waste and greater or equal to 500 c.y. vegetable food waste.

History: Cr. Register, January, 1988, No. 385, eff. 2–1–88; r. and recr., Register, June, 1996, No. 486, eff. 7–1–96; CR 05–020: am. (8) (a) 7. and (9) (a) 7. Register January 2006 No. 601, eff. 2–1–06.

CHAPTER 10

RECYCLING AND PROCESSING REQUIREMENTS FOR COMMERCIAL SOLID WASTE MANAGEMENT FACILITIES

Section 1. In General.

(a) Authority: The authority for the rules and regulations promulgated in this chapter is the Wyoming Environmental Quality Act, W.S. 35-11-101 et seq. Specific sections of the act that provide authority for this regulation include W.S. 35-11-102, 35-11-109, and Article 5, Solid Waste Management, 35-11-501 et seq.

(b) Applicability: The rules and regulations contained herein shall apply to any person who operates, or proposes to operate, any solid waste management facility receiving a monthly average greater than five hundred (500) short tons per day of unprocessed household refuse or mixed household and industrial refuse. The rules and regulations shall apply to any new facility, or to any existing facility seeking a permit amendment to allow any increase in capacity such that a monthly average greater than five hundred (500) short tons per day of unprocessed household refuse or mixed household and industrial refuse will be received for management or disposal. Facilities receiving a monthly average greater than five hundred (500) short tons per day shall be those facilities where the sum of the wastes received during any month, divided by the number of days wastes are received at the facility during that month, is greater than five hundred (500) short tons.

(c) Objectives: The objectives of these rules and regulations are to establish standards and requirements for commercial solid waste management facilities which minimize unnecessary use of the land for solid waste disposal, allow for effective state regulation, oversight, and inspection of solid wastes managed in the state, and conserve natural resources in accord with the policy and purpose of the Wyoming Environmental Quality Act, W.S. 35-11-102.

(d) Severability: If any section or provision of these regulations, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would

have adopted the valid portions and applications of these regulations without the invalid part, and to this end the provisions of these regulations are declared to be severable.

(e) Reserved

Section 2. Permit Requirements for Commercial Solid Waste Management Facilities.

(a) Permits required: Each new commercial solid waste management facility subject to the requirements of W.S. 35-11-508 and this chapter shall, prior to commencing construction, obtain all solid waste management facility permits required by the applicable chapters of these rules and regulations. Any existing solid waste management facility shall obtain amended permits allowing the receipt of five hundred (500) tons per day, prior to accepting wastes at such rates at the facility. At a minimum, each facility shall obtain the following permits, or amendments of existing permits:

(i) A sanitary landfill permit under Chapter 2;

(ii) A treatment, transfer, and storage permit under Chapter 4; and

(iii) If applicable, an incineration permit under Chapter 4.

(b) Permit consolidation: The department may consolidate applicable permits into a single commercial solid waste management facility permit.

(c) Special wastes: Each commercial solid waste management facility receiving any special waste shall demonstrate compliance with the requirements of Chapter 8.

(d) Financial assurance: Each commercial solid waste management facility shall demonstrate compliance with the financial assurance requirements of Chapter 7.

(e) Operating practices: The permit applications required in paragraph (a) of this section shall describe the operating practices that will be employed at the facility to assure compliance with the requirements and standards of this chapter.

(f) Other permits: The permit applications required in para-

graph (a) of this section shall describe other permits which may be required by the act as a condition of construction or operation of the facility.

Section 3. Permit Application Requirements.

(a) Description of waste stream sampling: The Chapter 6 permit application for each facility shall include a description of the proposed methodology for periodic monitoring and sampling of incoming wastes for the purpose of determining the weight of material in representative samples of unprocessed wastes. This weight, designated as UP_{wt} in Section 7(c) of this chapter, shall be determined initially for purposes of compliance with the test demonstration requirements of Section 4 of this chapter. For operating facilities, this weight shall be monitored by sampling representative wastes at least once per month.

(b) Other descriptions required: The Chapter 6 permit application for each facility shall include detailed descriptions of the systems, processes, equipment, personnel, and procedures to be used to comply with the waste screening, waste processing, and waste recovery requirements of this chapter. The descriptions shall include:

(i) Narrative discussions of the waste flows and routings including but not limited to procedures used to receive wastes, locations and routes for transfer of wastes from initial receipt of wastes to ultimate disposition of treatment residues, locations and methods for storage and removal of useful components of the waste stream, and other applicable waste handling practices or procedures planned for use at the facility.

(ii) Detailed design drawings of facility structures, roads, loading and unloading structures, environmental monitoring systems, and any other improvements associated with the facility.

(iii) Detailed design drawings, process flow information, and any available test results for equipment or systems used for waste screening, waste processing, and recovery of useful components of the waste stream. Information shall be of sufficient detail to allow department evaluation of the ability of the equipment or systems to perform as represented, and to comply with the standards of Sections 5, 6 and 7 of this chapter.

(iv) A description of the equipment used to sample in-

coming wastes, sampling procedure(s) to be used, the frequency of sampling or inspecting incoming wastes and a discussion of how such frequency will adequately detect prohibited wastes.

(v) Narrative plan describing the facility compliance monitoring systems used by the operator to continuously monitor, record, and report to the department the facility's compliance with the rules and regulations.

(vi) A description of the proposed test demonstration, which shall be conducted to comply with the requirements of Section 4 of this chapter. The test demonstration description shall address sampling and analysis protocols for wastes to be used in the demonstration, describe how the demonstration wastes are representative of wastes to be received at the facility when full-scale operations commence, and include an evaluation of the facility's ability to screen incoming waste shipments to detect prohibited wastes.

(vii) Procedures used to manage prohibited wastes removed from the wastes received at the facility. The application shall include documentation that the planned management methods for such prohibited wastes comply with applicable state and federal requirements.

(viii) Any other information needed by the department to evaluate compliance with the requirements of this chapter.

Section 4. Test Demonstration Requirements.

(a) Applicability: Any commercial solid waste management facility subject to the requirements of this chapter shall perform a test demonstration prior to commencing full-scale operations. The Chapter 6 permit issued by the department shall contain such conditions as may be necessary to assure the adequate performance of the test demonstration, and shall provide that the permit does not authorize full-scale receipt of solid wastes at the facility until the department has concurred that the test demonstration has met the requirements of this section.

(b) Objectives: The test demonstration shall be conducted by the facility operator to evaluate the ability of the facility to:

(i) Screen incoming waste shipments to assure that prohibited wastes are not received at the facility, in compliance with

the standards of Section 5 of this chapter.

(ii) Successfully process wastes as necessary to allow recovery of useful components of the waste stream as required by Section 6 of this chapter.

(iii) Recover amounts of useful components of the waste stream as required by the standards in Section 7 of this chapter and as described in the permit application.

(iv) Handle waste residues in compliance with applicable rules and regulations for treatment or disposal of residues.

(c) Test demonstration wastes: The test demonstration shall be conducted with an amount of solid wastes not to exceed five days' proposed capacity of the commercial solid waste management facility. Wastes to be used in the demonstration shall be shown by the applicant to be representative of wastes to be received at the facility under full-scale operations, including composition and any pretreatment that the wastes may receive prior to delivery to the facility.

(d) Test demonstration report: At the conclusion of the test demonstration, the applicant shall prepare and submit to the department a report documenting performance of the demonstration, including measurements taken during the demonstration, and evaluating the ability of the facility to perform in compliance with the standards in this chapter.

(e) Test demonstration approval: Within ninety (90) days of receipt of the test demonstration report, the department shall:

(i) Approve the demonstration report and allow full-scale operations to commence; or

(ii) Disapprove the demonstration report, and allow the applicant to perform an additional demonstration employing such modifications to equipment or operating procedures as may be proposed by the applicant to allow the facility to meet the requirements of this section; or

(iii) Disapprove the demonstration report. Any disapproval shall include the department's reasons and basis for disapproval, and shall describe the applicant's right to appeal the decision. Any decision to disapprove a demonstration report shall

be considered as a refusal to grant a permit, as provided in W.S. 35-11-802.

Section 5. Solid Waste Screening Standards.

(a) Screening mechanisms required: Each facility shall screen incoming wastes to detect and remove prohibited wastes received at the facility in violation of paragraph (b) of this section. The facility shall use the following mechanisms:

(i) Mandatory visual screening of all wastes received at the facility. This mandatory visual screening shall occur at the facility following receipt of wastes, but prior to processing by grinding, shredding, incineration, or composting. Baled or compacted wastes received at the facility shall be broken, separated, and visually inspected to comply with the mandatory visual screening requirement of this paragraph; and

(ii) Controls at the political jurisdiction where wastes are collected, so that prohibited wastes are not accepted for transport to the facility.

(b) Prohibited wastes: The following wastes are prohibited from receipt at the facility:

(i) Liquid wastes, excluding:

(A) Liquids which may be associated with containers of products which are typically used by households; or

(B) Liquid wastes or sludges which have been specifically approved for receipt at the facility by the Chapter 6 facility permit;

(ii) Polychlorinated biphenyls (PCBs) at concentrations greater than fifty (50) parts per million, or electrical equipment which may contain, or have contained, such PCBs;

(iii) Lead acid batteries;

(iv) Any special waste described in Chapter 8 of these rules and regulations, unless the Chapter 6 permit authorizes receipt of such special wastes;

(v) Wastes, which because of their appearance, chemical

or physical characteristics, and quantity, can reasonably be determined to be hazardous wastes generated by a business other than a conditionally-exempt small quantity generator;

(vi) Radioactive wastes; and

(vii) Any other waste which is determined by the department to pose such hazards to operation of the facility, its personnel, or to human health and the environment of the state, that requires the waste to be prohibited.

(c) Compliance with approved application plan: The waste screening program shall be carried out as described in the application at all times wastes are being received at the facility.

(d) Non-compliance: Failure of any waste screening program to detect and remove prohibited wastes, as determined by inspection by the department, shall be cause for the department to order cessation of receipt of wastes by the facility, in accord with W.S. 35-11-508(a)(i). The cessation order shall be issued by the department, and shall be reviewed and approved, modified, or revoked by the council in accord with the provisions of W.S. 35-11-701(c). If approved by the council, the facility shall cease receipt of wastes until a revised waste screening program is approved by the director. This paragraph shall not be construed as limiting the powers of the director to issue emergency orders under W.S. 35-11-115, or of the department to pursue remedies under Article 9 of the act.

Section 6. Solid Waste Processing Standards.

(a) Allowable facility processing methods: Each facility shall process wastes at the facility using any of the following processes required to separate, prepare, or condition the wastes to meet the recovery standards of Section 7 of this chapter:

(i) Shredding;

(ii) Grinding;

(iii) Size classification;

(iv) Density classification;

(v) Compaction or densification;

(vi) Liquids removal; or

(vii) Incineration, provided that incineration may not be used as a means to recover energy from wastes received at the facility until the solid waste recovery standards of Section 7 of this chapter for metals, glass, household batteries, and plastics have been met.

(b) Alternate methods: The department may authorize alternate solid waste processing methods as part of the Chapter 6 permit for any facility, provided that such alternate processing methods are necessary for the facility to meet the recovery standards of Section 7 of this chapter.

Section 7. Solid Waste Recovery Standards.

(a) Recovery of materials; amounts: Each facility shall recover, at the facility, useful components of the solid waste stream as specified by the Chapter 6 permit. In issuing any Chapter 6 permit the department shall establish minimum acceptable recovery amounts, expressed as pounds of component per ton of wastes received, for useful components of the solid waste stream, as required by this section.

(b) Recovery rates: For facilities receiving unprocessed household refuse, or mixed household and industrial refuse, excluding sludges and incinerator ash, each facility shall recover useful components of the solid waste stream in amounts at least equal to those specified by this paragraph:

(i) Eighty (80) percent for aluminum;

(ii) Forty (40) percent for all glass;

(iii) Sixty (60) percent for plastics;

(iv) Ninety (90) percent for ferrous metals;

(v) Twenty (20) percent for mixed paper including corrugated paper products, unless paper is treated under paragraph (f) of this section; and

(vi) Ninety (90) percent for household batteries.

(c) Calculation of recovery amounts: Recovery amounts shall be calculated as follows:

$(RECOVER_{wt} / UP_{wt}) \times 100$, where

UP_{wt} = total weight of material (e.g. aluminum) in a representative ton of unprocessed wastes; and

$RECOVER_{wt}$ = weight of material (e.g. aluminum) recovered at the facility from a ton of unprocessed wastes by processing and recovery equipment or practices.

(d) Modification of recovery amounts: Recovery amounts shall be initially established by the department after review of the test demonstration data required by Section 4 of this chapter. Recovery amounts may be modified by the department for any operating facility where the composition of wastes received at the facility has changed, as demonstrated by the monthly sampling and analysis required in Section 3(a) of this chapter.

(e) Sludge or incinerator ash: For facilities receiving sludges or incinerator ash, each facility shall recover useful components of the sludge or incinerator ash in amounts determined by the department as a part of the Chapter 6 permit for the facility. The department shall establish recovery amounts based on analysis of the chemical composition of the wastes and assessment of the feasibility of recovering useful components from such wastes.

(f) Treatment of organic residues: The department shall require any facility to treat remaining organic residues following recovery of useful components of the waste stream. Such treatment may be required to:

(i) Recover energy from any organic waste fractions, including components recovered as specified in paragraph (b)(v) of this section, remaining after treatment and recovery of paragraph (b) components; or

(ii) Produce usable materials, by composting or other processes, from any organic waste fractions, including components recovered as specified in paragraph (b)(v) of this section, remaining after treatment and recovery of paragraph (b) components.

(g) Disposal ban: Useful components recovered from solid

wastes delivered to a facility, as required in paragraph (b) or (f)(ii) of this section, shall not be disposed in the state. Such useful components shall be stored prior to shipment from any facility in compliance with storage requirements established by the facility’s Chapter 6 permit.

CHAPTER 15

SOLID WASTE MANAGEMENT RULES & REGULATIONS

Section 1. Authority.

(a) General provisions: The Wyoming Environmental Quality Act, Article 5, Section 35-502.42 through 44 (Cumulative Supplement 1973) authorizes the Director of Environmental Quality to:

(i) Coordinate the activities of all State agencies concerned with Solid Waste Management and disposal. (35-502.42)

(ii) Promulgate Rules and Regulations for operation of Solid Waste disposal sites. (35-502.44)

(iii) Request Solid Waste disposal site plans for approval from any person or municipality that proposes to establish or is presently operating a Solid Waste Disposal site. (35-502.43)

(b) Existing state statutes regulating solid waste disposal practices:

(i) 35-196: Prohibits industries from dumping refuse in any water body.

(ii) 35-462: Prohibits all waste disposal practices that constitutes either a nuisance or a potential source of water pollution.

(iii) 35-463: Provides a fine of not less than $50 or more than $200 or a jail term not to exceed six (6) months for violation of Statute 35-462.

(iv) 35-464: Prohibits the disposal of sawdust in any water body.

(v) 35-465: Provides for a fine not to exceed $100 for the improper disposal of dead animals.

(vi) 35-466: Prohibits the littering of public rights of way.

(vii) 35-502.16: No person shall cause, threaten or allow the discharge or emission of any air contaminant in any form

so as to cause pollution which violates rules, regulations and standards adopted by the administrator after consultation with the advisory board.

(viii) 35-502.18: No person, except when authorized by a permit issued pursuant to the provisions of this act, shall:

(A) Cause, threaten or allow the discharge of any pollution or wastes into the waters of the state;

(B) Alter the physical, chemical, radiological, biological or bacteriological properties of any waters of the state;

(C) Construct, install, modify or operate any sewerage system, treatment works, disposal system or other facility, capable of causing or contributing to pollution;

(D) Increase the quantity or strength of any discharge;

(E) Construct, install, modify or operate any public water supply.

(c) Legislation assisting counties and municipalities.

(i) 9-18.13 through 9-18.20 “Wyoming Joint Powers Act”. This Act gives two or more agencies the power to jointly plan, create, finance and operate:

(A) Water sewerage or Solid Waste facilities.

(B) Recreational facilities.

(C) Police protection agency facilities.

(D) Fire protection agency facilities.

(E) Transportation systems facilities.

(F) Public school facilities.

(ii) 15.1-410(i) Enrolled Act #98.

(A) Improvements authorized: In addition to all

other powers provided by law, any city or town may make public improvements, for which bonds may be issued to the contractor, or be sold as provided in this chapter:

(I) To plan, create, construct and equip liquid and solid waste facilities. To carry out this power or to prevent pollution or injury to the environment, any city or town may go beyond its corporate limits and take hold and acquire property by purchase or otherwise, or in joint effort with cities, towns, counties or special districts. Cities or towns may enact ordinances and make all necessary rules and regulations for the government and protection of liquid and solid waste disposal facilities, and fix rates and provide for collection and disposal.

(iii) 18-330.30 through 18-330.34. Enrolled Act #109. Solid Waste Disposal Districts. An Act giving county commissioners the authority to:

(A) Establish by resolution one (1) or more solid waste disposal districts.

(B) Exercise all powers granted to cities and towns by W.S. 15-1-3 (19) and (39) to adopt rules and regulations in managing the disposal of solid wastes within the district.

(C) Levy a tax upon the taxable property within a solid waste disposal district.

Section 2. Definitions. For the purpose of these Regulations the following terms shall have the meaning or interpretations set out below and shall be used in conjunction with, and as supplemental to, those definitions contained in W.S. Section 35-502.3.

(a) “Cell” means compacted solid wastes that are enclosed by natural soil or cover material in land disposal site.

(b) “Construction/Demolition Landfill” means a solid waste disposal site that accepts only construction waste, demolition waste and/or brush. This does not include garbage, liquids, sludges, paints, solvents, putrescibles, dead animals and hazardous or toxic waste which will be prohibited from being disposed of in this type site.

(c) “Cover Material” means soil or other suitable material that is used to cover compacted solid wastes in a land disposal

site.

(d) “Daily Cover” means six inches of cover material that is spread and compacted on the top and side slopes of compacted solid wastes at the end of each operating day in order to control vectors, fire, moisture and erosion and to assure an aesthetic appearance.

(e) “Final Cover” means cover material that is used to completely cover the top of a landfill. This cover is at least twenty-four inches thick.

(f) “Facility” means any solid waste disposal area, site, process, or system and the operation thereof including, but not limited to personnel, equipment and buildings.

(g) “Garbage” means any putrescible solid or semi-solid animal and/or vegetable waste material resulting from the handling, preparation, cooking, serving and consumption of food.

(h) “Ground Water” means any water found beneath the surface of the earth.

(i) “Hazardous Waste” means any waste or combination of wastes which pose a substantial present or potential hazard to human health, the environment, and plants or animals because such wastes are nondegradable or persistent in nature or because they can be biologically magnified, or because they can be lethal, or because they may otherwise cause or tend to cause detrimental cumulative effects.

(j) “Incineration” means the controlled process by which combustible solid, liquid or gaseous wastes are burned and changed into noncombustible gases and other residues.

(k) “Incinerator” means a controlled facility consisting of one or more chambers or furnaces in which wastes are burned.

(l) “Industrial Landfill” means a disposal facility utilizing an engineered method of disposing of industrial solid waste on land without creating a hazard to the public health, the environment, plants or animals.

(m) “Industrial Solid Waste” means waste resulting from, or incidental to, any process of industry, manufacturing, mining or

development of any agricultural or natural resources. This does not include waste materials, the discharge of which is subject to the rules and regulations of the Water Quality Division or mining materials subject to the Land Quality Rules and Regulations.

(n) “Leachate” means liquid that is the result of the percolations of fluids through solid waste and which consists of chemicals and microbial waste products from the solid waste in a dissolved or suspended state.

(o) “Letter of Approval” means the written approval from the Department to construct and/or operate a solid waste disposal facility.

(p) “Modified Landfill” means an adaptation of sanitary landfill, differing only in that coverage with a layer of earth is applied to deposited refuse at a frequency less than daily.

(q) “Municipality” means a city, town, county, district, association or other public body.

(r) “Municipal Solid Waste” means solid waste resulting from or incidental to residential, community, trade or business activities, including garbage, rubbish, ashes, street sweepings, dead animals, abandoned automobiles and all other solid waste other than industrial solid waste.

(s) “New Facility” means any facility which requires new or additional construction, such as access roads, fencing, surface water diversion, etc. or the working area is not included in a plan which has been previously submitted to and approved by the Department.

(t) “Open Burning” means uncontrolled burning of solid waste in the open.

(u) “Open Dump” means an uncontrolled solid waste disposal site at which solid wastes are dumped in the open in such a manner that they present a real or potential hazard to public health and the environment.

(v) “Person” means an individual, partnership, firm, association, joint venture, public or private corporation, trust, estate, commission, board, public or private institution, utility, cooperative, municipality or any other political subdivision

of the state, or any interstate body or any other legal entity.

(w) “Plans” means maps, drawings and narrative description, prepared to describe the solid waste disposal facility and its operation.

(x) “Processing Plant” means a facility used or designed to transfer, shred, grind, bale, compost, salvage, separate, reclaim, or provide other treatment of solid wastes.

(y) “Promiscuous Dumping” means the unauthorized deposition of solid waste in an area that is not approved by the Department as a solid waste disposal site.

(z) “Public Road” means a road which all the people have a right to use, or which all the people have used, or which are under the control of governmental instrumentalities and maintained at public expense.

(aa) “Refuse” means any putrescible or nonputrescible solid waste, except human excreta, but including garbage, rubbish, ashes, street sweepings, dead animals, offal and solid agricultural, commercial, industrial, hazardous, institutional, demolition and construction wastes.

(bb) “Sanitary Landfill” means a method of disposing of refuse on land without creating nuisances or hazards to public health or safety by utilizing the principles of engineering to confine the refuse to the smallest practical area, to reduce it to the smallest practical volume, and to cover it with a layer of earth at the conclusion of each day’s operation or at such more frequent intervals as may be necessary. (American Society of Civil Engineers)

(cc) “Salvaging” means the controlled removal of solid waste for the purpose of reuse.

(dd) “Scavenging” means the uncontrolled removal of solid waste by unauthorized persons.

(ee) “Sludge” means the accumulated semi-liquid suspension of settled solids.

(ff) “Solid Waste” means garbage, and other discarded solid materials resulting from industrial, commercial and agricultural

operations, and from community activities, but does not include solids or dissolved material in domestic sewage or other significant pollutants in water resources such as silt, dissolved or suspended solids in industrial waste water effluents, dissolved materials in irrigation return flows or other common water pollutants.

(gg) "Solid Waste Disposal Site" means any facility that processes, transports or disposes of solid waste.

(hh) "Vector" means a carrier, usually an arthropod, capable of transmitting a pathogen from one organism to another.

(ii) "Water Table" means the upper water level of a body of ground water.

(jj) "Working Face" means that portion of the land disposal site where solid wastes are being deposited and are being spread and compacted prior to the placement of cover materials.

Section 3. Applicability. The Rules and Regulations contained herein shall apply to any person, government or governmental subdivision, corporation, organization, partnership, business trust, association, district or other entity involved in any aspect of the management, control or disposal of solid waste. Section 11. c. (i) of these regulations are effective upon final approval of a state program pursuant to P.L. 95-87.[1]

Section 4. Objectives. The objectives of these rules and regulations are to provide minimum standards for the management and disposal of Solid Waste in order to protect the health, safety and welfare of the people and prevent the degradation of the environment.

Section 5. Scope. The Rules and Regulations promulgated herein shall cover all aspects of solid waste management as provided under the authority of the previously cited legislation.

Section 6. Severability. If any section or provision of these regulations, or the application of that section or provision to any person, situation, or circumstance is adjudged invalid for any reason, the adjudication does not affect any other section or provision of these regulations or the application of the adjudicated section or provision to any other person, situation, or circumstance. The Environmental Quality Council declares that it would have adopted the valid portions and applications of these

regulations without the invalid part, and to this end the provisions of these regulations are declared to be severable.

Section 7. Operation Classification.

(a) Operational standards: The operational standards prescribed in the following sections are the minimum requirements for the various types of solid waste facilities and are based on population density and types of solid waste handled. Facilities are classified according to the amount and degree of treatment required.

(b) Types of Operations.

(i) Type I Operation: Type I operations are those facilities which serve a minimum resident population of 3,000 or process a minimum of 2100 tons of solid waste per year. Type I solid waste disposal shall be accomplished by sanitary landfill, incineration, composting, or other acceptable methods which are approved by the Department.

(ii) Type II Operation: Type II operations are required as a minimum for municipalities or other areas, or any combination, thereof, serving a resident population of less than 3,000 but greater than 1,000. A Type II operation shall not be located within 1,000 feet of any public road, residence, water way, or water well unless the Department, after an on-site inspection, determines that the operation is not and/or will not create a nuisance or detriment to the environment or public health. Type II solid waste disposal facility shall be accomplished by a modified landfill (using a minimum of once-per-week compaction and cover) or any other equally acceptable method which is approved by the Department. The Department may require a more frequent application of cover for sites which serve areas with an influx of tourists during certain months of the year.

(iii) Type III Operation: Type III operations are required as a minimum for municipalities or other area, or any combination thereof, serving a resident population of less than 1,000. A Type III operation shall not be located within 1,000 feet of any public road, residence, waterway or waterwell unless the Department, after an on-site inspection, determines that the operation is not and/or will not create a nuisance or detriment to the environment or public health. Type III solid waste disposal shall be accomplished by a modified landfill (using a minimum of once-per-

month compaction and cover), or any other equally acceptable method which is approved by the Department.

(iv) Construction/Demolition/Brush Fill: The construction/demolition fill shall be accomplished as described for a Type III landfill.

(v) Industrial Landfill: Each industrial landfill operation must have the written approval of the Department. This can be accomplished by the Department approving plans and design criteria formulated and submitted by a qualified Solid Waste Management person and by an on-site inspection by an employee of the Department. Each industrial site will be evaluated on an individual basis by the Department.

(vi) Hazardous Waste Facility: Each hazardous waste facility shall be accomplished as described for an industrial landfill.

Section 8. Facility Construction and Operation Approval.

(a) New facilities: Each person planning to construct and operate a solid waste facility shall submit construction and operating plans to the Department for approval. New facilities are required to have letters of approval for both the construction and operation of the facility. These plans shall include, but not be limited to, the following:

(i) A legal description of the property to be used for a facility.

(ii) Map or aerial photograph of the area showing land use and zoning within one-half mile of the solid waste disposal site. The map or photograph shall be of sufficient scale to show all residences, industrial water courses, buildings, waterwells, roads and other applicable details and shall indicate the site and the adjoining general topography. Surface ownership of the proposed lands shall also be indicated on the map or photograph.

(iii) Plot plan of the site showing dimensions, location of soil borings, where applicable, proposed trenches and filled areas where applicable, winter cover stock piles, fencing, and original and proposed fill elevations. The scale of the plan should not be greater than 200 feet per inch.

(iv) A written report shall accompany the plans indicating:

(A) The proposed starting date of construction and the estimated completion date.

(B) Population and area normally served by the site. If applicable, give the population served and number of months the site will be affected by the influx of tourists.

(C) Projected life of the site.

(D) Anticipated type (municipal, industrial, commercial, agricultural, hazardous waste), estimated quantity (cubic yards, tons, pounds), and source (city, county, industrial, etc.) of solid waste handled at the site.

(E) Geological formations and soil analysis to a depth of at least 15 feet below proposed excavations and the lowest elevation of the site. Such data shall be obtained by soil borings or other appropriate means. This information can usually be obtained from the Soil Conservation Service, U.S.G.S. or a log from a well in the area. If soil borings are used, there should be a maximum of two per 5 acres in areas of variable topography and geology and/or two per site area in areas of uniform topography and geology. The borings should be taken at the highest and lowest elevations of the proposed use area.

(F) Estimated depth to the highest ground water table and basis on which estimation was made.

(G) Source and characteristic of cover material and method of protecting cover material for winter operation.

(H) Type and amount of equipment to be provided at the site for excavating, earth moving, spreading, compaction and other needs.

(I) Name, address, telephone number of persons responsible (Plant engineer, supervisor, director of public works, city engineers, etc.) for actual operation and maintenance of the site and intended operating procedure.

(J) Method of handling bulky items, dead animals, and other special materials.

(K) Method by which the surface and ground water will be protected from contamination. (Diversion ditches, drain pipes, impermeable liners, etc.)

(L) Type of fire protection which will be provided. (Fire department, water supply, stockpiled soil, fire lanes, etc.)

(M) Reclamation of site and planned reuse.

(v) The design of the solid waste facility shall include one or more topographic maps at a scale of not over 200 feet to the inch with five foot contour intervals. These maps shall show: the proposed fill area (where applicable), any borrow area, access roads, grades for proper drainage of each lift, special drainage devices if necessary; fencing; equipment shelter; existing and proposed utilities; and all other pertinent information to clearly indicate the orderly development, operations, and completion of the facility.

(vi) Four copies of these plans shall be submitted to the Department for evaluation and approval. A fifth copy shall be filed in the county clerk’s office for public perusal in the county in which the site will be operated. The submitted plans for a new facility will be evaluated and an on-site inspection of the area will be made by an employee of the Department within sixty (60) days after the receipt of the plans by the Department. The person responsible for the facility will be notified in writing within fifteen days after the inspection of the approval or disapproval for the construction of the facility. When the construction phase of the facility is near completion the person responsible will notify the Department and another on-site inspection will be made by a representative of the Department. If the construction phase is satisfactory a letter of approval for operating will be issued within fifteen (15) days from the date of the inspection. If the construction of the proposed site is unsatisfactory, the person responsible will be notified in writing within fifteen days from the date of the inspection as to the deficiencies. The Department will provide the necessary recommendations for correction. The letter of approval for operation will be valid for a period of one (1) year from the date of the letter. Periodic inspections will be made of the facility by representatives of the Department to insure conformity with the plans and the rules and regulations. Letters of approval for operation will be issued on a yearly basis. Operating plans will not be needed after initial approval unless they

are requested by the Department.

(b) Existing facilities: All existing facilities will be required to submit operating plans to the Department. These plans should include, but not be limited to, the following:

(i) Map or aerial photograph of the area showing land use and zoning within one-half mile of the solid waste disposal site. The map or photograph shall be of sufficient scale to show all residences, industrial buildings, water wells, water courses, roads and other applicable details, and shall indicate the general topography.

(ii) A written report shall accompany the map or photograph indicating:

(A) Location of the site.

(B) Population and area normally served and if applicable, the population served and number of months the site is affected by the tourist trade.

(C) Name, address, telephone number of responsible persons.

(D) The type, estimated quantity, and source (city, county, industries, etc.) of solid wastes handled at the site.

(E) Geological formations and soil analysis to a depth of at least 15 feet below proposed excavations and the lowest elevation of the site.

(F) Depth to the highest ground water table in the area.

(G) Type of cover material and frequency of cover.

(H) Type and amount of equipment provided at the site.

(I) Number and duties of personnel at the site.

(J) Hours and days of operation.

(K) Method of handling bulky items, dead animals and

other special materials.

(L) Method by which the surface and ground water is protected from contamination. (Diversion ditches, drainage pipes, liners, etc.)

(M) Type of fire protection available. (Fire department, water supply, stockpiled soil, fire lanes)

(N) Type of access road (is it an all weather road).

(O) Method for controlling blowing material. (Catch fences, watering, etc.)

(P) Is an inclement weather disposal site provided?

(Q) Any other pertinent information that may assist the Department in evaluating the site.

(iii) After the plans are submitted, they will be evaluated and an on-site inspection will be made by an employee of the Department within sixty (60) days from the date the plans are received. The person in charge will be notified in writing within fifteen (15) days after the inspection as to the results of the inspection. If the evaluation of the site indicates that it is not being operated in compliance with Section 10 of these Rules and Regulations, the person responsible will be notified in writing of the deficiencies and recommended corrections. The person responsible shall reply to the Department in writing as to the steps that will be taken to correct the deficiencies and the expected time period for the corrections. The Department after consultation with the person responsible will issue a compliance schedule for the proposed corrections. If the facility is in compliance with the Rules and Regulations a letter of approval for operation will be issued which will be valid for a period of one (1) year from the date of the letter. Periodic inspections will be made of the facility by representatives of the Department to insure conformity with the plans and the Rules and Regulations. Letters of approval for operating will be issued on a yearly basis. Operating plans will not be needed after initial approval unless requested by the Department.

(c) Preparation of data: Data presented in support of Types I, II and III operations and data for industrial and hazardous wastes sites shall be prepared by a qualified Solid Waste Manage-

ment person.

(d) Change or transfer of letter of approval: In the event that any person the possession of a letter of approval for the construction and/or operation of a solid waste disposal facility decides to substantially change or modify construction or operating procedures, or transfer the letter of approval to another person, he must get prior written approval from the Department.

(e) Revocation of approval to operate: In the event that a person does not comply with the submitted plan, or the Rules and Regulations, the letter of approval for site operation can be withdrawn by written notice from the Department. Such a notification shall include the reasons for the withdrawal of approval and it will become effective twenty (20) days from the mailing date of such notice, unless within that time the holder of the letter of approval requests a hearing before the Environmental Quality Council. Such a request for hearing shall be made in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the Rules of Practice and Procedure of the Department. If the person so notified does not respond within the twenty-day period or the Council judges that the letter of approval should be withdrawn, the site will be considered in noncompliance and will be subject to the penalties as prescribed under Article 9.35-502.49 of the Environmental Quality Act.

(f) Research on experimental disposal of solid waste: Special considerations may be given on an individual basis by the Department for any research or experimental disposal of solid wastes.

Section 9. Public Participation. The Department will post a notice in the area newspaper for a period of one (1) week. A copy of the plans for the site will be on file at the county clerk’s office in the area of the proposed site. Any person or persons wishing to comment on the installation of a new solid waste disposal site will have twenty (20) days from the date of the first newspaper publication in which comments can be submitted in writing to the Department. If substantial adverse comments are received, a public hearing will be called by the Department.

Section 10. Minimum Standards of Operation.

(a) Sanitary Landfill (Type I operation): To comply with minimum standards each Type I operation must meet or exceed the

following requirements:

(i) Each day's deposits of solid waste shall be compacted to the smallest practical volume and a six-inch layer of acceptable cover material shall be placed and compacted over the solid waste at the end of each working day. A minimum of two feet of acceptable cover material shall be placed over any completed segment or cell of the site in such a manner that effective surface drainage will be obtained.

(ii) The working face of the site shall be confined to the smallest practical area in order to control the exposed waste without interfering with operational procedures.

(iii) Adequate fencing shall be provided in order to prevent the access to the site by livestock and large wild animals.

(iv) Adequate fencing shall be provided to catch windblown material. All windblown material shall be collected by attending personnel and returned to the working face once per week or as necessary to prevent the site from becoming unsightly.

(v) Adequate provisions shall be made for operating during adverse weather conditions. This may be accomplished by providing an emergency disposal area which can be utilized during bad weather.

(vi) Surface water shall be prevented from entering onto, into or out of the deposited solid waste.

(vii) Solid waste shall not be deposited nearer than 500 feet to a drinking water supply well, stream, reservoir, lake, water treatment plant, or raw water intake which furnishes water to a public water system or for human consumption unless engineering data supplied to the Department shows there is no danger of the contamination of these waters.

(viii) Reasonable precautions shall be taken to prevent leachate from the solid waste from entering the surface or ground water.

(ix) The Department, at its discretion, may require monitoring wells, provided by the responsible person, in order to observe any changes in the quality of the ground water.

(x) No burning of solid waste shall be conducted at any site without the written permission of the Department.

(xi) Adequate equipment shall be provided for excavating, compacting, and covering.

(xii) Adequate personnel or signs shall be provided at each site to give directions for the unloading of refuse.

(xiii) All weather access roads shall be provided at each site.

(xiv) A fire lane (minimum 10 feet wide around the perimeter of the site) and other fire protection shall be provided at each site. This may be accomplished by a water supply, stockpiled earth, nearby fire department, or other acceptable means.

(xv) Hazardous materials may be disposed of in a municipal solid waste disposal site only if the Department gives special written permission. This permission can be obtained by submitting in writing the type, physical composition and chemical composition of the waste and the special procedures and precautions to be taken in handling and disposing of the hazardous waste. There will be some types of hazardous waste that will not be allowed to be deposited in a municipal site. Special directions for the disposal of these wastes will be given by the Department.

(xvi) Salvaging and reclamation, if permitted, will be conducted in such a manner as not to interfere with normal operating procedures.

(xvii) The site shall be operated in such a manner so as to control insects and rodents. Additional control in the form of pesticides may be required.

(xviii) Scavenging and animal feeding or grazing by domestic livestock shall not be permitted on the site.

(xix) Adequate provisions shall be made for the handling and disposal of bulky waste. If this type material cannot be combined with normal municipal refuse, a separate unloading or alternate area shall be provided on-site for the handling and ultimate disposal of large or bulky items. These items (junk cars, tires, tree stumps, appliances, etc.) shall not be stored on-site in such a manner or for periods of time that they will create a public

nuisance, fire hazard, public health hazard, or detriment to the environment.

(xx) Special provisions shall be made for the acceptable disposal of dead animals. Dead animals should be covered with six inches of cover material upon disposition. Small animals can be worked into the operating face of the landfill, but provisions should be made for the disposal of large dead animals.

(xxi) When a site is completed or disposal operations are temporarily suspended, all refuse in the area shall be covered with at least two feet of topsoil and reseeded if sufficient vegetation is not available to stabilize the surface. The person who received the written approval of the Department will be responsible for the repair of any eroded, cracked and uneven areas for a period of three (3) years after completion of the site.

(xxii) The person who was given permission to operate will be responsible for controlling any gases or leachate from a site for a period of five (5) years after completion of the site.

(xxiii) Street sweepings may be stored temporarily or utilized in areas where they do not create public nuisances, aesthetic degradation, or public health hazards.

(b) Type II Operation (modified landfill): To comply with minimum standards, each Type II operation must meet or exceed all standards required of a Type I operation except a six-inch well-compacted cover material will be required only once per week.

(c) Type III Operation (modified landfill): To comply with minimum standards, each Type III operation must meet all the requirements of a Type I and II operation except a six-inch well-compacted cover material will be required only once per month.

(d) Demolition/Construction/Brush Landfill: To comply with minimum standards each demolition/construction/brush landfill must meet the requirements of a Type III site plus no putrescible or hazardous waste shall be deposited in this type fill.

Section 11. Industrial and Hazardous Waste Facility Construction and Operation Approval.

(a) New facilities: Each person planning to construct and operate an industrial solid waste land disposal facility or hazard-

ous waste disposal facility shall submit construction and operating plans to the Department for approval. These plans will be for the industrial waste disposal that is not subject to the rules and regulations of the Air, Land and Water Quality Divisions. These plans shall include, but not be limited to, the following:

(i) A detailed map of the area showing land use and/or zoning within one-half mile of the solid waste disposal site. The map shall be of sufficient scale to show all residences, industrial buildings, water wells, water courses, roads and other applicable details and shall indicate the general topography.

(ii) A legal description of the property to be used for a disposal site.

(iii) A plot plan of the site showing dimensions and describing the working areas of the site.

(iv) A written report shall accompany the plans indicating:

(A) The proposed starting date of construction and estimated completion date.

(B) Anticipated number of days the site will be operated per month and/or per year.

(C) Types, characteristics, and quantities of wastes to be handled at the site. Common, trade, and chemical names of materials will be required of the different materials (caustic, toxic, water soluble, flammable, solid, liquid, slurry, etc.), amounts per day, per month, per year.

(D) A description of the working area which gives, in detail, the operations proposed, such as treatment and recovery processes and equipment involved, along with identification of disposal procedures to be used. (Landfill, land farming, etc.)

(E) Projected life of the site.

(F) Geological formations and soils analysis of the proposed site.

(G) Proposed method by which surface and ground water will be protected from contamination. (Drainage plans, con-

trol devices, etc.)

(H) Proposed method by which the public and animals will be excluded from the site.

(I) Where applicable, type of fire protection which will be provided.

(J) Depth to the highest ground water table in the area.

(K) Where applicable, method by which blowing material will be controlled.

(L) Will the site be operated during periods of inclement weather? If so, what provisions will be made for inclement weather operations?

(M) Intended points of ingress and egress.

(N) Local wind pattern.

(O) Utilities on site. (If applicable)

(P) Other pertinent information requested by the Department.

(v) These plans will be submitted and processed as described in Section 8-(5) paragraph two.

(vi) If a person is planning on installing several small disposal sites of the same type in a general area, an area plan for all sites with the pertinent information (such as water and air pollution abatement processes, method of disposal, amounts and types of waste, etc.) will be acceptable.

(b) Existing facilities: All existing facilities shall submit operating plans upon request to the Department. These plans will be for the industrial waste or hazardous waste disposal that is not subject to the rules and regulations of the Air, Land and Water Divisions. These plans shall include, but not be limited to, the following:

(i) A detailed map of the area showing land and/or zoning within one-half mile of the solid waste disposal site. The map

shall be of sufficient scale to show all residences, industrial buildings, water wells, water courses, roads and other applicable details and shall indicate the general topography.

(ii) A legal description of the property being used for a disposal site.

(iii) A plot plan of the site showing dimension and describing the working areas of the site.

(iv) A written report shall accompany the plans indicating:

(A) Number of days the site is operated per month and/or per year.

(B) Types, characteristics and quantities of wastes handled at the site. Common, trade, and chemical names of materials will be required of the different materials (caustic, toxic, water soluble, flammable, solid, liquid, slurry, etc.), amounts per day, per month, per year.

(C) A description of the working area which gives, in detail, the operations such as treatment and recovery processes and equipment involved, along with identification of disposal procedures used. (Landfill, land farming, etc.)

(D) Projected life of the site.

(E) Geological formations and soils analysis of the site.

(F) Method by which surface and ground water is protected from contamination. (Drainage plans, control devices, etc.)

(G) Method by which the public and animals are excluded from the site.

(H) Where applicable, type of fire protection provided.

(I) Depth to the highest ground water table in the area.

(J) Where applicable, method by which blowing material is controlled.

(K) Is the site being operated during periods of inclement weather? If so, what provisions are made for inclement weather operations?

(L) Points of ingress and egress.

(M) Local wind pattern.

(N) Utilities on site. (If applicable)

(O) Other pertinent information requested by the Department.

(v) These plans will be submitted and processed as described in Section 8 b.,final paragraph.

(c) Minimum Standards of Operation for Industrial Disposal Sites.

(i) Industrial solid waste disposal site - To comply with minimum standards each industrial site shall meet or exceed the following requirements:

(A) All sites shall be fenced or otherwise guarded to prevent the access of the public, wild animals and livestock. This will only be necessary if the site is receiving materials that will be harmful to the public and animals.

(B) All sites shall be located in areas that will not create nuisances, aesthetic degradation or hazards to nearby residents.

(C) Sites shall be constructed in such a manner that surface water will not run onto, into or out of the working area.

(D) Sites shall not be located nearer than 500 feet to a drinking water supply well, stream, reservoir, lake, water treatment plant, or raw water intake which furnishes water to a public water system or for human consumption unless supportive engineering data shows that materials from the site will not enter these areas.

(E) Sites shall be designed and operated in such a manner that fumes, gases, leachates, solids, particulates, or liquids will not enter the water in such quantities as to be in violation of Water Quality standards.

(F) Sites shall be designed and operated in such a manner that fumes, gases, particulated, and other materials will not enter the air in such quantities as to be in violation of the Air Quality regulations.

(G) All sites shall have adequate fire protection.

(H) All sites shall be designed, constructed, and operated in such a manner that the combining of different materials will not create undesirable or dangerous reactions within the area.

(I) For industrial solid waste disposal sites located at surface coal mines, the following standards also apply:[2]

(1.) Noncoal waste (grease, lubricants, paints, flammable liquids mining machinery, etc.) shall be disposed only in accordance with a letter of authorization issued by the Department under the authority of the Solid Waste Management Rules and Regulations, (1975)**

(2.) All noncoal waste shall be covered with a minimum of two feet of nontoxic and noncombustible material, or if necessary, treated. The cover shall be stabilized and revegetated.**

(3.) Solid waste material shall not be deposited at refuse embankments or impoundment sites, not shall any excavation for solid waste disposal be located within eight (8) feet of any coal outcrop or storage area.**

(d) Minimum Standards of Operation for Hazardous Waste Disposal Sites.

(i) Hazardous waste disposal sites: To comply with the minimum standards each hazardous waste site shall meet or exceed the following requirements:

(A) The responsible person shall take all precautions to prevent unauthorized persons from entering the site.

(B) The responsible person shall take the necessary precautions to prevent animals from entering the site.

(C) All sites shall be located away from flood plains, natural depressions and excessive slopes unless the detailed engineering plans indicate the acceptability of a site in these areas.

(D) Hazardous waste sites shall be located in areas of low population density, low land use value, and low ground water contamination potential unless detailed engineering plans indicated the acceptability of this type site in the area.

(E) Sites shall not be located near a drinking water supply well, stream, reservoir, lake, water treatment or raw water intake which furnishes water to a public water system.

(F) Whenever possible, sites shall be located in areas where impermeable soils are located.

(G) The site shall be located and designed to contain any runoff from accidental spills at the site.

(H) All sites shall be designed and located where there will be no hydraulic surface or subsurface connection between flowing or standing water.

(I) All trenches, ponds, holding tanks, etc. shall be lined with acceptable liners to prevent leaching or transmission of materials from the sites.

(J) All sites shall be located, designed, and operated in such a manner that they will not create nuisances, aesthetic degradation, or hazards to the surrounding area.

(K) Records of the amounts received, types (chemical analysis), date and locations where these materials are on site will be maintained.

(L) Precautions shall be taken to avoid mixing of materials that are not compatible.

(M) All sites shall be designed, located, and operated in such a manner that the materials will be totally contained on the site.

(N) Prior to the deposition of hazardous wastes at a site, monitoring wells shall be provided by the person responsible and background data shall be provided to the Department.

(O) The site and the different areas within the site shall contain the appropriate hazardous waste signs.

(P) When the site is completed the working areas of the site shall be properly encapsulated to prevent the migration of water into or out of the material.

(Q) The site at completion shall be closed off, signed and permanently isolated from humans and animals.

(R) Before a letter of approval is issued for the operation of a hazardous waste disposal site, the responsible person shall consult with the Department of Environmental Quality as to the length of time that person will be required to monitor for water pollution at the site. The length of time required will depend on the types of materials deposited and their life span.

Section 12. Processing Plants.

(a) Solid waste processing plants shall meet the following minimum standards:

(i) All-weather access roads shall be provided.

(ii) Surface drainage facilities shall be provided to prevent surface water runoff into, or out of the working area.

(iii) Fencing shall be provided in order to control access to the site.

(iv) Provisions shall be made to prevent blowing litter in the area.

(v) Personnel and provisions shall be provided at each facility to give directions for unloading of refuse and prevent the blockage of the normal flow of traffic during operating hours.

(vi) Fire protection shall be provided at each facility.

(vii) No hazardous materials shall be processed unless

permission is given by the operator and the Department.

(viii) The processing facility shall be constructed in such a manner as to allow it to be thoroughly cleaned by water or steam.

(ix) All liquids produced by the process and by cleaning shall be disposed of in compliance with the Wyoming Water Quality Rules and Regulations.

(x) Ventilation and odor control shall be provided at each plant.

(xi) The processing plant shall not accumulate solid waste in quantities that cannot be processed before the waste creates a public nuisance, health hazard, fire hazard, odors, or vector habitat.

(xii) In the event of extended mechanical breakdown the unprocessed solid waste and incoming waste shall be removed from the site to an approved alternate facility before the solid waste creates a public nuisance, health hazard, fire hazard, odors or vector habitat.

(xiii) Vector control shall be provided by good sanitation practices and/or pesticides.

Section 13. Compliance Schedules. All persons who have existing solid waste disposal sites that serve 3,000 or more people and/or who are operating industrial or hazardous waste disposal sites shall submit operating plans to the Department by January 1, 1977. All other persons operating solid waste disposal sites (municipal sites serving less than 3,000 population, county sites, private sites, construction/demolition fill, etc.) shall submit operating plans to the Department by July 1, 1977. If a person already has a letter of approval for operating it will not be necessary to submit these plans. If the site or sites are not in compliance with Sections 10 and 11 of these Rules and Regulations the responsible person must include a proposed plan of action with a date or dates when compliance will be obtained. The Department, after consultation with the responsible person, will approve or disapprove the proposed compliance schedule. If the schedule is disapproved, the Department will provide the responsible person with a compliance date. In the event that a person does not agree with the compliance date set by the Department, he can request a

hearing before the Environmental Quality Council. Such a request for hearing shall be submitted in writing to the Director and shall state the grounds for the request. Any hearing held shall be conducted pursuant to the Rules of Practice and Procedure of the Department.

The submission of a compliance schedule, operating plans or operating under a compliance schedule does not relieve the operator of a solid waste disposal site of his legal responsibility to operate the facility in a manner which does not create a public nuisance, a health hazard, a fire hazard or does not violate applicable Air and Water Quality standards.

Section 14. Promiscuous Dumping. Persons shall not deposit solid waste in an area that is not designated by the Department as a solid waste disposal facility. This does not apply to a single family unit or household which is disposing of that family unit or household's solid waste on their own property in such a manner that it is not creating a health hazard, public nuisance, or detriment to the environment.

Section 15. Waivers and Exemptions.

(a) Waivers: The Department, upon application, shall grant waivers from the provisions of these Rules and Regulations for solid waste disposal practices and sites which are necessitated by reason of agricultural or industrial operations remote from authorized solid waste disposal sites and which do not create a health hazard, public nuisance or are not a detriment to the environment. Applications for such waiver shall be made and granted by letter, or verbally when the circumstances permit. "Remote" means inaccessible due to distance, natural barriers or inaccessible because of private, public or legal restrictions.

(b) Exemptions: The disposal of solid waste at oil industry drilling sites which are presently regulated by the Wyoming Oil and Gas Commission, United States Geological Survey and the Bureau of Land Management shall be exempt from these Rules and Regulations.

[1]As amended, 1980 (Effective upon final approval of State Program.)

[2]As amended, 1980. (Effective upon final approval of State Program.)