

40 CFR §262.11 “Hazardous Waste Determination”

[which is incorporated into §391-3-11-.08(1) of the Georgia Rules
for Hazardous Waste Management by reference]

§262.11 states, the following:

“A person who generates a solid waste, as defined in 40 CFR 261.2 [Definition of Solid Waste], must determine if that waste is a hazardous waste using the following method:

- (a) He should first determine if the waste is excluded from regulation under 40 CFR 261.4 [“Exclusions” – the exclusions include the following sections: Materials which are not solid wastes; Solid wastes which are not hazardous wastes; Hazardous wastes which are exempted from certain regulations; Samples; Treatability Study Samples; Samples Undergoing Treatability Studies at Laboratories and Testing Facilities; and Dredged material that is not a hazardous waste].
 - (b) He must then determine if the waste is listed as a hazardous waste in subpart D of 40 CFR part 261 [Lists of Hazardous Waste].
 - (c) For purposes of compliance with 40 CFR part 268 [Land Disposal Restrictions], or if the waste is not listed in subpart D of 40 CFR part 261 [Lists of Hazardous Waste], the generator must then determine whether the waste is identified in subpart C of 40 CFR part 261 [Characteristics of Hazardous Waste] by either:
 - (1) Testing the waste according to the methods set forth in subpart C of 40 CFR part 261 [Characteristics of Hazardous Waste], or according to an equivalent method approved by the Administrator under 40 CFR 260.21 [Petitions for equivalent testing or analytical methods]; or
 - (2) Applying knowledge of the hazard characteristic of the waste in light of the materials or the processes used.
 - (d) If the waste is determined to be hazardous, the generator must refer to parts 261 [Identification and Listing of Hazardous Waste], 264 [Standards for Owners or Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities], 265 [Interim Status standards for Owners or Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities], 266 [Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities], 268 [Land Disposal Restrictions], and 273 [Standards for Universal Waste Management] of this chapter [Chapter 1 – Environmental Protection] for possible exclusions or restrictions pertaining to management of the specific waste.”
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Generators of solid wastes are responsible for determining if their waste is a hazardous waste in accordance with §262.11 of the Georgia Rules for Hazardous Waste Management. To assist with this determination, below we have provided “The most common problems resulting in a violation of this rules”, followed by “a flowchart which provides a step-by-step process for making a hazardous waste determination [from 40 CFR Part 260 Appendix I]”, and lastly “additional references for making hazardous waste determinations”.

The most common problems resulting in a violation of this rule include:

- **Only evaluating the waste by testing for TCLP (the toxicity characteristic leaching procedures), ignitability, and/or pH (three of the characteristics of hazardous waste).** §262.11 of the Rules layout the three steps of making a hazardous waste determination which are as follows: (1) You must first determine if the waste is excluded from regulation as either a solid waste or a hazardous waste. (2) If your waste is not excluded, you then need to determine if it listed in Subpart D of §261 [Lists of Hazardous Waste]. (3) You then need to determine whether the waste is characteristically hazardous waste as identified in subpart C of 40 CFR part 261 [Characteristics of Hazardous Waste]. However, some generators skip the first two steps and only evaluate the waste by determining whether it is characteristic by testing for ignitability, corrosivity and/or TCLP. Making a waste determination is a step-by-step process, and should start with the determining whether the waste is excluded, then listed, and finally characteristic.

- **Not properly documenting the determination.** If a waste is not excluded (from the definition of solid waste or hazardous waste) or is not a listed waste in accordance with §262.11(a) & (b), the generator may test the waste or use knowledge of the waste to determine if that waste is a characteristic waste. In addition to complying with §262.11 of the Rules, generators of hazardous waste are required by §268.7(a) [Land Disposal Restrictions “Testing, tracking, and recordkeeping requirements for generators, treaters, and disposal facilities”] to determine if the waste has to be treated before it is land disposed. This determination can be made by either testing the waste or using knowledge of the waste.

[The discussion below is specific to the decision of whether to test the waste or to apply knowledge of the waste to (1) determine whether the waste is restricted from land disposal, and (2) to make the hazardous waste determination; therefore, remember throughout the discussion in this section, that it is assumed that the generator has already determined that the waste is not excluded and is not listed].

If knowledge is used in the determination, the rationale for that determination should be adequately documented. Documentation in this case should include, but is not limited to, specific information about the chemical(s) or material(s) that make up the waste such as chemical and physical properties from published or documented sources, and information about the process itself. Chemical specific knowledge regarding the contents of the waste, and its physical properties may be able to tell you if that waste exhibits characteristics such as corrosivity (based on pH), ignitability (based on flashpoint), reactivity (based on reactivity data), or toxicity (contains TCLP constituents at concentrations exceeding TCLP levels). Information about the process generating the waste and how it affects the waste can be helpful in determining whether the waste is hazardous. Does the material/product pick up additional hazardous constituents (contaminants) during the generation process? Does the process make the waste more dilute? More concentrated? More contaminated? In using generator knowledge, the determination must be valid, correct, and supported by documentation, especially when that determination is that the waste is not a hazardous waste or does not carry certain waste codes (contain certain contaminants) one might question whether are in the wastes.

Using knowledge alone to make a hazardous waste determination may not always be adequate due to the variability of the waste, or the lack of knowledge of chemical processes in generating the waste. In those cases where the waste generated is variable, generators may choose to make a determination that the waste is hazardous waste rather than testing the waste each time it is generated. Similarly, in the case of a hazardous waste that is always hazardous, but is characteristic for certain constituents at times, but not at others, the generator may choose to be inclusive of all potential waste codes, rather than test the waste each time it is generated. If the generator with a variable waste chooses not to treat the waste as described above in this paragraph, the waste must be tested as generated.

If test methods are used to determine if the waste exhibits a characteristic, a description of how the waste was sampled to obtain a representative sample and copies of the analytical results for that sample should be included as documentation of the hazardous waste determination. The generator may apply knowledge of the waste and the generation process to determine which constituents/parameters to include in analyses of the samples, rather than applying the full suite of analysis. However, if the full suite of analyses is not applied, the generator must have sufficient documentation to demonstrate why only certain analyses were applied, and not all. Adequate documentation includes a list of constituents/chemicals that make up the waste, their physical and chemical properties, the effects of the process on the product/materials in the waste, and whether the product/material picks up additional hazardous constituents (contaminants) in the process; all of which provide knowledge as to what constituents should be included in the analyses.

- **Failing to properly identify all hazardous waste generated at the facility.** §262.11 first states, “A person who generates a solid waste, as defined in 40 CFR 261.2 [Definition of Solid Waste], must determine if that waste is a hazardous waste . . .” Many solid waste streams at facilities tend to be overlooked as hazardous wastes because the solid waste usually does not resemble what one would

think a hazardous waste looks like [i.e., wastes that are not a liquid chemical waste (rags, absorbents, or filters); or wastes that are not directly generated in manufacturing process (universal wastes, computers, electronics, or sludge in drains or sumps); wastes that are newly regulated (electronics); or wastes that are similar to household hazardous wastes (mercury thermometers, aerosol cans, batteries, and lamps), which are excluded as hazardous waste in accordance with §261.4(b)(1).]. Wastes which tend to be overlooked include: universal wastes (such as batteries, fluorescent lamps, and lighting fixtures), partially-empty aerosol cans, rags, used electronic and computer equipment, mercury thermometers, absorbents, filters, antifreeze, and sludge from drains or sumps near unloading/loading areas.

A flowchart which provides a step-by-step process for making a hazardous waste determination can be found below [from 40 CFR Part 260 Appendix I]:

FIGURE 1
DEFINITION OF A SOLID WASTE

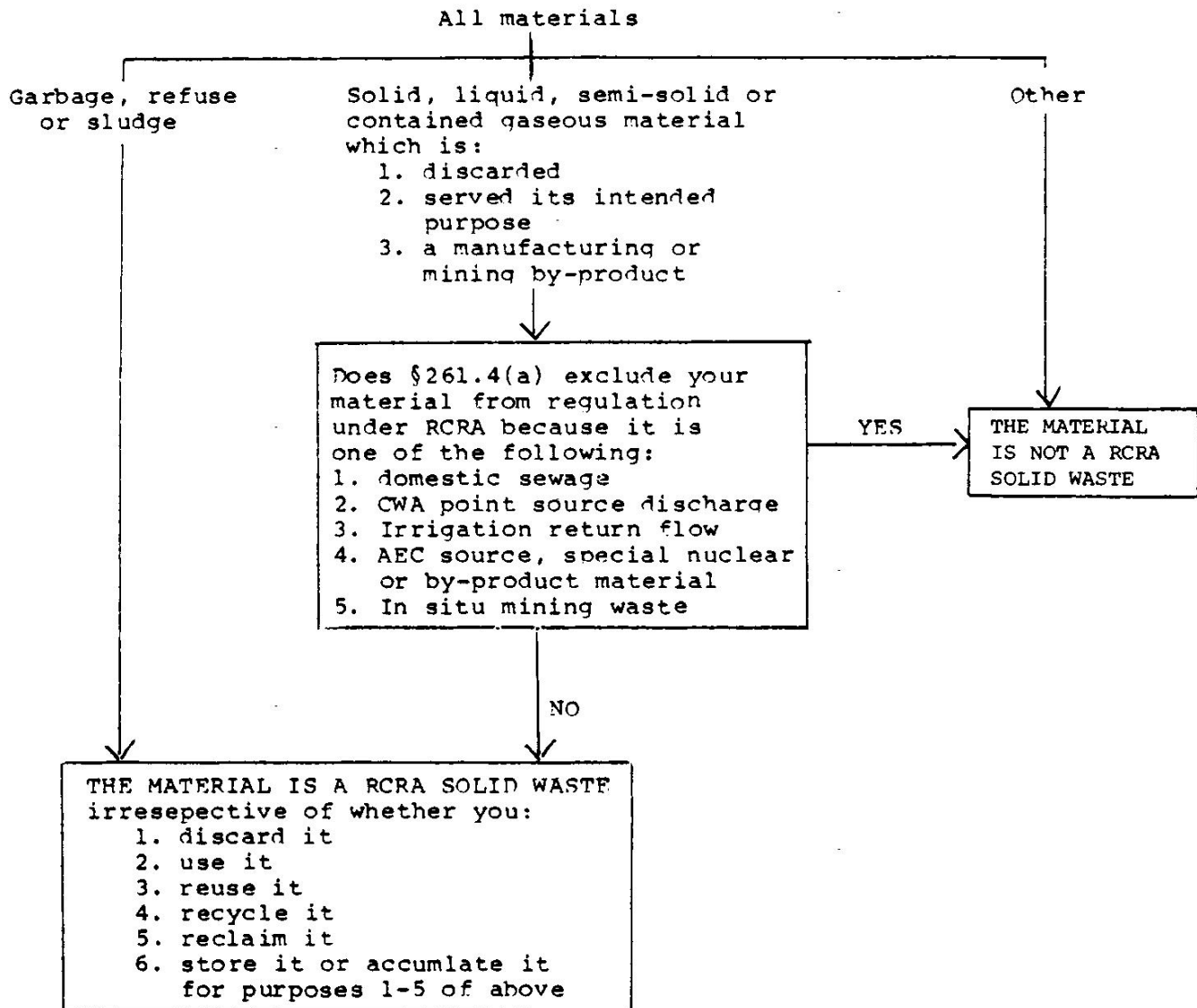


FIGURE 2

DEFINITION OF A HAZARDOUS WASTE

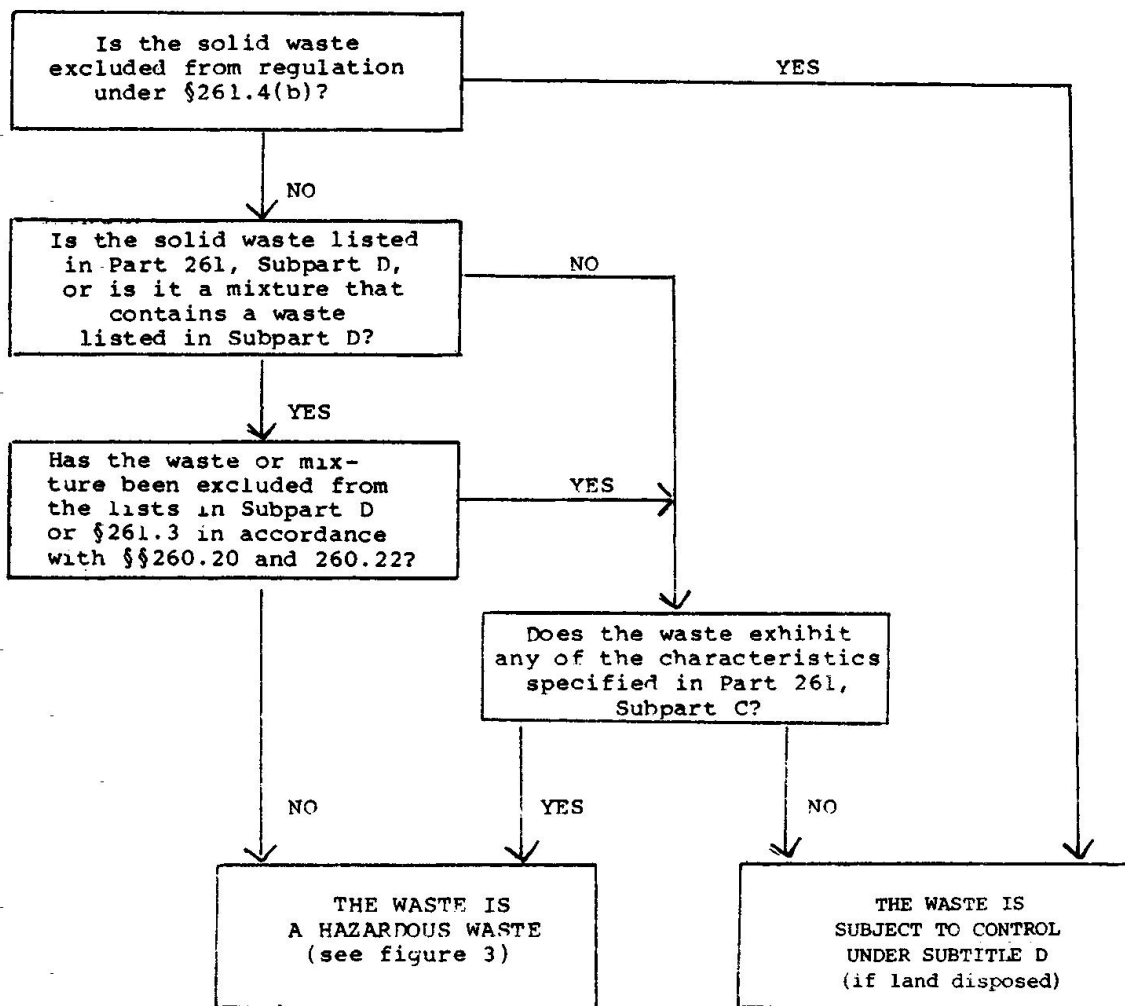


FIGURE 3

SPECIAL PROVISIONS FOR CERTAIN HAZARDOUS WASTE

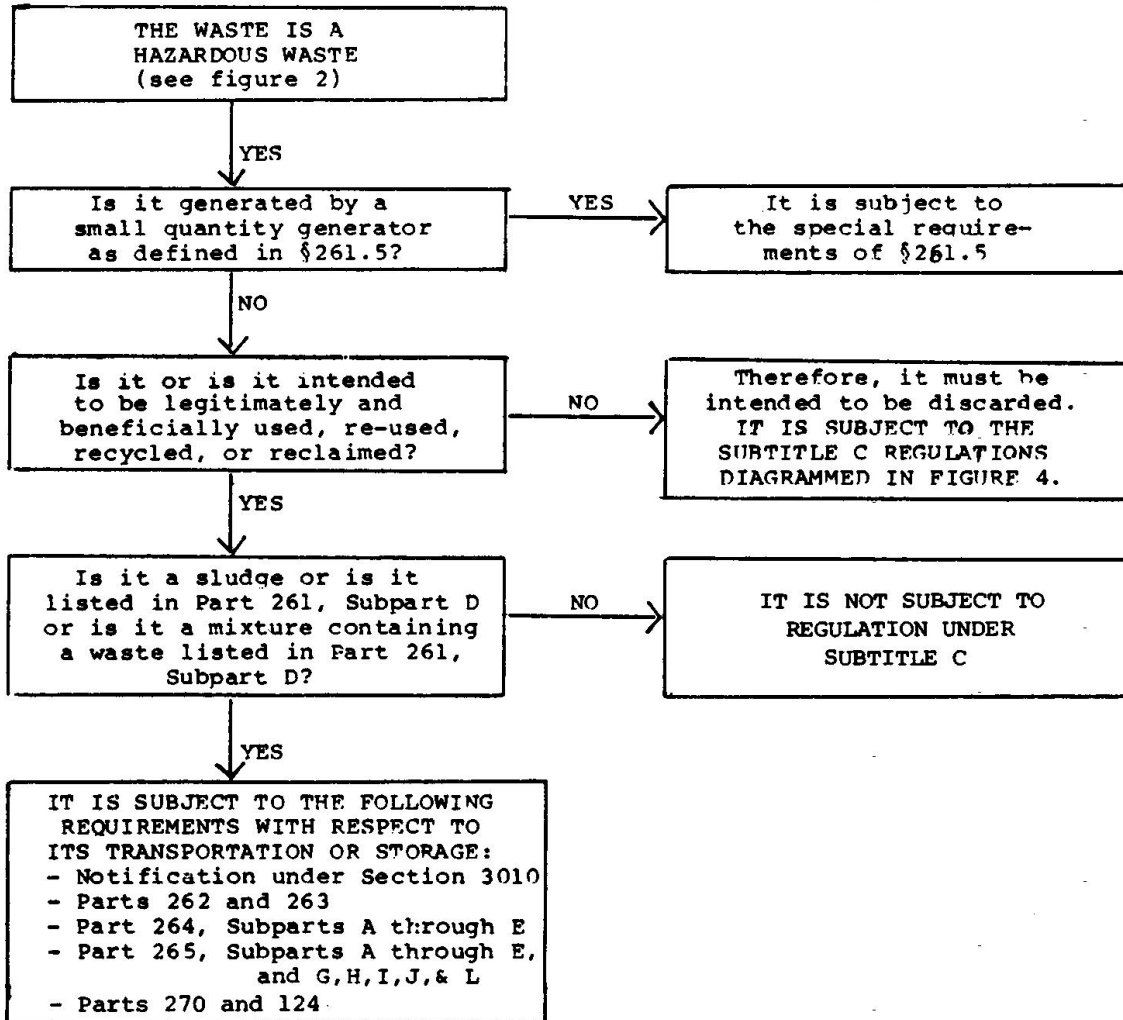
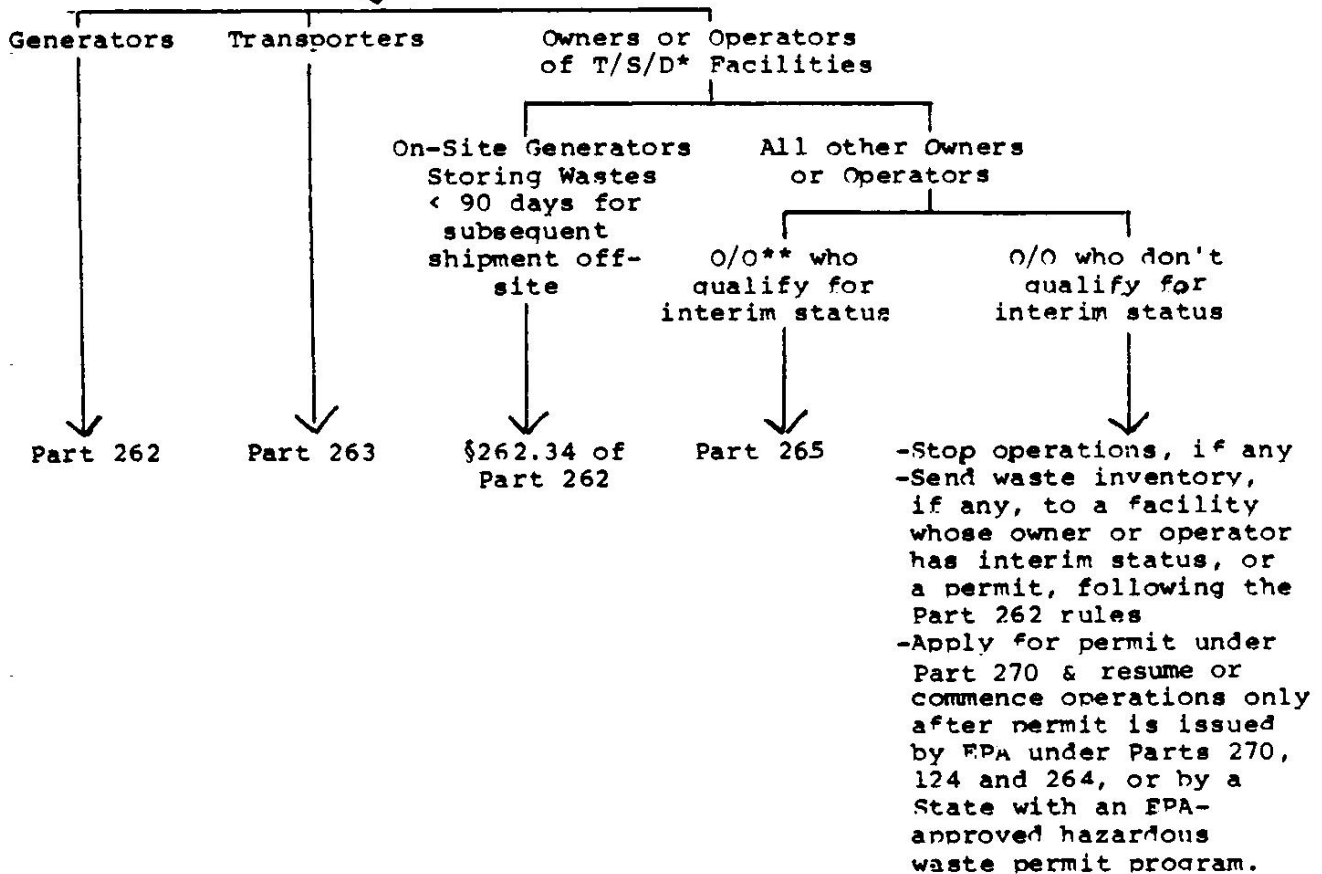


FIGURE 4

REGULATIONS FOR HAZARDOUS WASTE
NOT COVERED IN DIAGRAM 3

All persons who handle hazardous waste
subject to control under Subtitle C
not covered in figure 3

Notify EPA according to
Section 3010 of RCRA
&
Obtain EPA ID Number



* T/S/D stands for Treatment, Storage, or Disposal

** O/O stands for Owners or Operators

Additional references for making hazardous waste determinations can found at the following websites:

- RCRA Training Module *Introduction to Hazardous Waste Identification*, published by U.S. Environmental Protection Agency, EPA530-K-05-012, September 2005, <http://www.epa.gov/epawaste/inforesources/pubs/hotline/training/hwid05.pdf>
- Hazardous Waste Identification Flowchart at Fedcenter.com, <http://www.fedcenter.gov/resources/facilitytour/hazardous/whatis/flowchart/>.