

**Georgia's State Plan for Implementation of the
Emissions Guidelines and Compliance Times for
Existing Sewage Sludge Incineration Units**

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Prepared by:

**Georgia Department of Natural Resources
Environmental Protection Division
Air Protection Branch**

Executive Summary

This document is Georgia's State plan for implementation of EPA rule 40 CFR Part 60, Subpart M, which states the Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units. An existing sewage sludge incineration (SSI) unit is an SSI unit that is located at a wastewater treatment facility and that commenced construction on or before October 14, 2010. The emissions guidelines set limits on stack emissions of nine pollutants from existing SSI units.

There are eight operable existing SSI units in the State of Georgia. These units are located at the following four wastewater treatment facilities: R.M. Clayton, R.L. Sutton, Utoy Creek, and City of Savannah. The first three facilities are located in the metropolitan Atlanta area and the fourth is located in coastal Georgia.

The State plan is required by the Federal rule and includes the following components:

- Facility inventory and unit-level emissions inventory
- Emissions limits and standards
- Compliance dates and increments of progress for affected units
- Performance testing, recordkeeping, and reporting requirements
- Operator training and qualification requirements
- Documentation of public notification and participation
- Provision for State progress reports to EPA
- Identification of enforceable state mechanisms for implementing the emission guidelines
- Demonstration of the State's legal authority to carry out the plan
- Requirement for Title V permits

Georgia has promulgated state rule 391-3-1-.02(2)(www) for the regulation of existing SSI units. The State rule, in conjunction with the State plan, ensures that existing SSI units meet performance requirements that are at least as stringent as the Federal emissions guidelines and compliance times.

The eight existing SSI units are subject to the requirements of this plan and of Georgia rule 391-3-1-.02(2)(www). The owner or operator of each unit shall comply with the applicable requirements by the compliance date specified in the State plan, March 21, 2016, or three years after the effective date of plan approval by EPA.

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List of Acronyms

| Acronym | Meaning |
|----------------|--|
| CAA | Clean Air Act |
| CEMS | Continuous Emissions Monitoring System |
| CWA | Clean Water Act |
| DNR | Department of Natural Resources |
| EG | emissions guidelines |
| EPA | Environmental Protection Agency |
| FB | fluidized bed |
| MH | multiple hearth |
| OCGA | Official Code of Georgia Annotated |
| OSHA | Occupational Safety and Health Administration |
| NPDES | National Pollutant Discharge Elimination System |
| NSPS | New Source Performance Standards |
| PTM | Procedures for Testing and Monitoring Sources of Air Pollutants, GA EPD, Air Protection Branch |
| SSI | sewage sludge incineration |

1.0 Introduction

This document is Georgia's State plan for implementation of U.S. EPA's Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units (40 CFR Part 60, Subpart Mmmm). An existing sewage sludge incineration (SSI) unit is an SSI unit that is located at a wastewater treatment facility and that commenced construction on or before October 14, 2010. The emissions guidelines (EG) set limits on emissions of nine pollutants from existing SSI units.

For the purposes of Subparts LLLL (new SSIs) and Mmmm (existing SSIs), a wastewater treatment facility is one that is "designed to treat domestic sewage sludge" (see 40 CFR 60.4780). Neither subpart contains a more specific definition or description of a wastewater treatment facility. For the purposes of this State plan, wastewater treatment facility will mean a facility that is subject to a National Pollutant Discharge Elimination System (NPDES) permit for discharge into the waters of the State of Georgia (reference Georgia's Rules for Water Quality Control O.C.G.A. 391-3-6).

Sewage sludge incinerators are installed at domestic wastewater treatment plants to reduce the volume of sludge, which is the waste produced by the wastewater treatment process. The sludge consists primarily of biomass and water, but also typically contains small amounts of a number of metals and man-made organic compounds. An SSI unit uses a controlled flame to burn the combustible matter in the sludge. Combustion of sewage sludge produces a number of air pollutants, some of which are present in the incinerator feed and are vaporized but otherwise unchanged and some of which are formed by the combustion process.

The two types of incinerators used for SSI in Georgia are fluidized bed (FB) and multiple hearth (MH). In a FB incinerator combustion of the waste is achieved by injecting it into a fluidized bed of sand or alumina (that is, a bed of inorganic particles suspended in a heated air stream). In a MH, incinerator combustion of the waste is achieved by raking ignited waste across an upper level hearth into an opening. The waste falls through the opening to the hearth below, where it is raked to another opening, falls to the next lower hearth, and so on. Levels of regulated air pollutants emitted from the fluidized bed process are typically lower than levels emitted from the multiple hearth process.

2.0 Regulation of Air Pollutant Emissions from Existing SSI Units

Emissions of air pollutants from existing SSI units are regulated under the Clean Air Act (CAA) and the Clean Water Act (CWA). The CAA and CWA requirements are described below. The purpose of this State Plan is to ensure compliance of existing SSI units with the requirements of the CAA.

2.1 CAA Requirements

SSI units are regulated as solid waste incinerators under CAA section 129, Solid Waste Combustion, and also under CAA section 111, Standards of Performance for New Stationary Sources. Subsections 129(b) and 111(d) address emissions from existing units and provide for emissions

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guidelines for these units. These statutory requirements are implemented through the following Federal regulations:

- 40CFR60 Subpart B: New Source Performance Standards, Adoption and Submittal of State Plans; and
- 40CFR60 Subpart M: Emissions Guidelines and Compliance Times for Sewage Sludge Incinerators – Final rule promulgated March 21, 2011.

Under Subpart M, existing SSI units are those that are located at wastewater treatment facilities and that commenced construction on or before October 14, 2010 [reference 40CFR60.5005 (a)]. Emissions limits and requirements for a state plan for existing SSI units are discussed below.

2.1.1 Emissions Limits

The pollutant emissions limits for existing SSI units are expressed as emission rates in mass per volume of effluent gas. The limits are presented in Table 2-1. There are separate sets of limits for FB units and MH units, with the FB limits being more stringent. There is also a limit on fugitive emissions from ash handling: visible emissions from the ash conveying system for no more than 5% of the hourly observation period.

Table 2-1. Emission Limits for Existing SSI Units

| Pollutant | Measurement Units (at 7% O₂) | Limit – Fluidized Bed | Limit – Multiple Hearth |
|---------------------------------------|--|----------------------------------|----------------------------------|
| particulate matter (PM) | mg/dscm | 18 | 80 |
| hydrogen chloride (HCl) | ppmvd | 0.51 | 1.2 |
| carbon monoxide (CO) | ppmvd | 64 | 3,800 |
| dioxins/furans: total mass* | ng/dscm | 1.2 | 5.0 |
| dioxins/furans toxic equiv.* | ng/dscm | 0.10 | 0.32 |
| mercury (Hg) | mg/dscm | 0.037 | 0.28 |
| oxides of nitrogen (NO _x) | ppmvd | 150 | 220 |
| sulfur dioxide (SO ₂) | ppmvd | 15 | 26 |
| cadmium (Cd) | mg/dscm | 0.0016 | 0.095 |
| lead (Pb) | mg/dscm | 0.0074 | 0.30 |
| Fugitive emissions: ash handling | NA | 5% or less of observation period | 5% or less of observation period |

* Affected sources can comply with either the total mass basis or toxic equivalency basis emission limit for dioxins/furans.

2.1.2 Requirements for a State Plan

Requirements for state plans are included in both 40CFR60 Subpart B and in 40CFR60 Subpart M. 40CFR60 Subpart B contains more general requirements for all new and existing sources, whereas Subpart M is specific to existing SSI units. In two cases Subpart M requirements supersede Subpart B requirements per 40 CFR 60.5040. First, State plans must be as protective as the emissions guidelines, and they must require all SSI units to comply by the dates specified in 40 CFR 60.5035. This applies instead of the option for case-by-case less stringent emissions standards and longer compliance schedules in 40 CFR 60.24(f). Second, State plans are required to implement a minimum of two increments of progress: the final control plan submittal date and final compliance date in 40 CFR 60.21(h)(1) and 60.21(h)(5). This applies instead of the requirement of 60.24(e)(1) that would require a State plan to include all five increments of progress for all SSI units.

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The plan elements required by 40CFR60 Subpart Mmmm are listed in Table 2-2 along with cross-references to the corresponding sections of the Georgia State plan. This plan also includes the Subpart Mmmm requirements for Title V permits in Section 10.0, although this is not a required plan element.

Table 2-2. Required State Plan Elements

| Plan Element | Section of Georgia State Plan |
|---|--------------------------------------|
| Facility inventory | 3.1 |
| Unit-level emissions inventory | 3.2 |
| Compliance dates and increments of progress for affected units | 6.0 |
| Emissions limits and standards | 2.1.1 |
| Operating limits | 8.0 |
| Operator training and qualification requirements | 5.0 |
| Performance testing, recordkeeping, and reporting requirements | 7.0 |
| Documentation of public notification and participation | 11.1 |
| Provision for State progress reports to EPA | 9.0 |
| Identification of enforceable state mechanisms for implementing the emission guidelines | 11.2 |
| Demonstration of the State's legal authority to carry out the plan | 11.3 |

2.2 Georgia Rule 391-3-1-.02(2)(www)

Existing SSI units must comply with Georgia rule 391-3-1-.02(2)(www), Sewage Sludge Incineration Units Constructed On or Before October 14, 2010 (see Appendix A). This State rule was promulgated to ensure that affected SSI units comply with the requirements of the Federal EG rule (40 CFR Part 60, Subpart Mmmm). Georgia's rule adopts the Federal rule by reference, with the exception of some requirements primarily related to operating limits, performance testing and monitoring, demonstration of initial and continuous compliance, and reporting and record keeping. These requirements are addressed by revisions to the Air Branch's Procedures for Testing and Monitoring (PTM) Sources of Air Pollutants (see Appendix B) and are at least as protective as the corresponding Federal requirements.

23 CWA Requirements

Sewage sludge is also regulated under the Clean Water Act (CWA). Rule 40CFR503, Standards for the Use or Disposal of Sewage Sludge, establishes standards for the final use or disposal of sewage sludge generated by the treatment of domestic wastewater at a treatment works.

Subpart E of the rule regulates incineration of biosolids and includes limits on seven metals and on total hydrocarbons. Three of the metals – cadmium, lead, and mercury – are also regulated under the Clean Air Act's EG. It should be noted that, as of the cover date of this document, the requirements of the CAA's EG do not take the place of or otherwise affect the CWA's 40CFR503 requirements.

3.0 Facility and Emissions Inventories

There are eight operable existing SSI units in the State of Georgia. An inventory of the facilities and inventories of SSI unit emissions of the EG pollutants are presented below.

3.1 Facility Inventory

The State plan must include an inventory of existing SSI units. Georgia's existing SSI units are located at the following four wastewater treatment facilities: R.M. Clayton, Utoy Creek, R.L. Sutton, and City of Savannah. The first three facilities are located in the metropolitan Atlanta area and the fourth is located in coastal Georgia. The inventory of units by facility and location is presented in Table 3-1. The table also includes the current operating permits for the respective units and the dates that their operation was first permitted. Table 3-2 presents design and operating characteristics, as available, for the existing SSI units.

All units that are included in Georgia's inventory must comply with Georgia's rule (www) and meet the requirements that are outlined in this plan. If a facility no longer intends to operate an SSI unit, the unit may be removed from the State's inventory if the State determines that it is inoperable. A unit may be demonstrated to be inoperable by meeting one or more of the following criteria:

- Waste charge door welded shut
- Stack and bypass stack removed
- Combustion air blowers removed
- Burners or fuel supply removed

These criteria are based on Section 3.3.1 of EPA document EPA-453/B-10-001: "Hospital/Medical/Infectious Waste Incinerators: Summary of Requirements for Revised or New Section 111(d)/129 State Plans Following Amendments for the Emission Guidelines", dated October 2010.

A facility must request and receive written concurrence of removal from the inventory from Georgia EPD. The request must be made in writing to Branch Chief, Air Protection Branch, Environmental Protection Division, Georgia Department of Natural Resources, Suite 120, 4244 International Parkway, Atlanta, Georgia 30354. The facility should allow 45 days from the date of request for a written response from EPD. EPD will remove the unit from the inventory only if one of the inoperability criteria has been met and the facility has also submitted a permit application requesting that the unit be removed from the facility's operating permit. The official inventory will be updated on an annual basis and will be posted at the following EPD web page:

<http://www.georgiaair.org/airpermit/html/sscp>

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Table 3-1. Existing Sewage Sludge Incineration Units - Inventory

| Facility | AIRS No. | City (County) | No. of SSI Units | Current Air Permit No. (Water Permit No.) | Title V Permit ? | Start of Permitted Operation of SSI Unit |
|---------------------|-----------------|--------------------------|---------------------------------|--|-------------------------------------|---|
| RM Clayton | 04-13-121-00268 | Atlanta (Fulton) | 2 | 4952-121-0268-V-1-0 (GA0021482) | yes | 11-07-1977 |
| Utoy Creek | 04-13-121-00036 | Atlanta (Fulton) | 2 | 4952-121-0036-V-02-0 (GA0021458) | yes | 11-11-1977 INC 1 06-09-1988 INC 2 |
| RL Sutton | 04-13-067-00018 | Smyrna (Cobb) | 2 | 4952-067-0018-V-03-0 (GA0026140) | yes | 06-02-2005 |
| City of Savannah | 04-13-051-00049 | Savannah (Chatham) | 2 | 4952-051-0049-S-01-0 (GA0025348) | no | 12-17-1975 |

Table 3-2. Existing Sewage Sludge Incineration Units – Characteristics

| Facility | Unit ID | Type ¹ | Capacity (dry tons /hour) | Sludge/year in dry tons (year of record) | Auxiliary fuels burned | Air Pollution Control (per air permit) |
|------------------|----------|-------------------|---------------------------------|--|-----------------------------------|---|
| RM Clayton | INC1 | MH | 2.25 | No data | Natural gas | Impingement Scrubber with Venturi Scrubber |
| | INC2 | MH | 2.25 | No data | Natural gas | Impingement Scrubber with Venturi Scrubber |
| Utoy Creek | INC1 | MH | 1.75 | No data | Natural gas | Wet Impingement Plate Scrubber |
| | INC2 | MH | 1.75 | No data | Natural gas | Venturi Scrubber |
| RL Sutton | INC3 | FB | 2.2 | 5,102 (2011) | Natural gas, fuel oil for startup | Venturi Scrubber/ Impingement Scrubber |
| | INC4 | FB | 2.2 | 5,660 (2011) | Natural gas, fuel oil for startup | Venturi Scrubber/ Impingement Scrubber |
| City of Savannah | Incin. 1 | MH | 0.83 | 0 (2011) | Natural gas, propane | Venturi Scrubber ³ |
| | Incin. 2 | MH | 0.83 | 5,144 (2011) | Natural gas, propane | Venturi Scrubber ³ |

(1) MH = multiple hearth; FB = fluidized bed

(2) Permit limit is 6,900 tons/12-month period

(3) Facility personnel reported in April 2012 that there is a venturi scrubber and an impingement scrubber on the unit

3.2 Emissions Inventory

40CFR60.5015(a)(2) requires unit-level emissions inventories, in the units of the standard, for each of the designated pollutants. EPD performed the required inventories using two methods:

- EPA Basis - estimation of baseline emissions from existing SSI units (by EPA contractor)
- Performance Test Basis – historical test data

In addition to the above methods, AP-42 emissions factors were also examined (AP-42, Chapter 2.2). However, there are several disadvantages to using these factors: they are not expressed in (and not readily convertible to) the units of the SSI emissions limits, the majority of them are E-rated (low degree of confidence), and their associated control scenarios do not closely match the controls used with Georgia's SSI units. Therefore, emissions inventories based on AP-42 factors are not included with the State plan. The emission inventory methods and a summary of the results are presented below.

3.2.1 EPA Baseline Emissions Estimates Basis

The first method of calculating an emissions inventory for Georgia's SSI units is based on an estimation of nationwide baseline emissions performed by ERG, an EPA contractor¹. The purpose of the contractor's estimates was to establish a nationwide estimate of baseline emissions from existing SSI units, prior to the implementation of additional controls to achieve the emissions guidelines. Due to the nationwide focus and scope of the effort, it is reasonable to assume that the control and emissions scenarios attributed to individual SSI units may not be accurate in all cases.

To perform the nationwide baseline emissions estimate, emissions test data was gathered from 20 of the nationwide total of 144 MH SSI units and from six of the nationwide total of 60 FB SSI units. In all cases, the test measurements were performed on emissions streams after control. For each tested MH unit and each pollutant, an uncontrolled concentration was back-calculated assuming a standard control efficiency for each control on the specific unit. The uncontrolled concentrations from all 20 of the tested units were then averaged to produce a representative uncontrolled concentration that could be applied to the 124 SSI units that lacked test data. Then, representative controlled concentrations were calculated for each of the untested units by applying their actual control scenarios and assuming standard control efficiencies. These representative controlled concentrations, in conjunction with the actual controlled concentrations from the tested units, were used (along with flow rates and operating hours) to calculate total nationwide baseline emissions of the regulated pollutants from MH units. The same method was used to estimate nationwide baseline emissions from the FB units.

The emissions estimates using the "EPA Basis" method are presented in Tables 3-3 and 3-4 for Georgia's MH and FB SSI units, respectively. The calculated emissions rate is below the M MMM limit for all pollutants from all Georgia SSI units with the exception of cadmium and lead at the

¹ Eastern Research Group, Inc., "Revised Estimation of Baseline Emissions from Existing Sewage Sludge Incineration Units," memo to Amy Hambrick, USEPA, January 2011 (docket EPA-HQ-OAR-2009-0559-0154)

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R.M. Clayton units. It should be noted that, in the case of the R.M. Clayton and Utoy Creek units, the emissions controls that EPA assigned for estimating emissions do not match the controls that are documented in the air permits for these facilities.

Table 3-3. EPA Basis – Emissions Estimates for Multiple Hearth Units

| Pollutant | Meas. Units | MMMM Limit | R.M. Clayton INC1 | R.M. Clayton INC2 | Utoy Creek INC1 | Utoy Creek INC2 | City of Savannah Incin. 1 | City of Savannah Incin. 2 |
|---------------------------------------|-------------|------------|-------------------|-------------------|-----------------|-----------------|---------------------------|---------------------------|
| particulate matter (PM) | mg/dscm | 80 | 68 | 68 | 34 | 34 | 34 | 34 |
| hydrogen chloride (HCl) | ppmvd | 1.2 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 | 0.65 |
| carbon monoxide (CO) | ppmvd | 3,800 | 865 | 865 | 865 | 865 | 865 | 865 |
| dioxins/furans: total mass | ng/dscm | 5.0 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 | 0.69 |
| dioxins/furans toxic equiv. | ng/dscm | 0.32 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 | 0.05 |
| mercury (Hg) | mg/dscm | 0.28 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 | 0.10 |
| oxides of nitrogen (NO _x) | ppmvd | 220 | 133 | 133 | 133 | 133 | 133 | 133 |
| sulfur dioxide (SO ₂) | ppmvd | 26 | 9.2 | 9.2 | 9.2 | 9.2 | 9.2 | 9.2 |
| cadmium (Cd) | mg/dscm | 0.095 | 0.440* | 0.440* | 0.044 | 0.044 | 0.044 | 0.044 |
| lead (Pb) | mg/dscm | 0.30 | 1.14* | 1.14* | 0.11 | 0.11 | 0.11 | 0.11 |

* estimate is above the MMMM emissions limit

Table 3-4. EPA Basis – Emissions Estimates for Fluidized Bed Units

| Pollutant | Meas. Units | MMMM Limit | R.L. Sutton INC3 | R.L. Sutton INC4 |
|--|------------------------|-----------------------|---------------------------------|---------------------------------|
| particulate matter (PM) | mg/dscm | 18 | 12 | 12 |
| hydrogen chloride (HCl) | ppmvd | 0.51 | 0.17 | 0.17 |
| carbon monoxide (CO) | ppmvd | 64 | 19 | 19 |
| dioxins/furans: total mass | ng/dscm | 1.2 | 0.20 | 0.20 |
| dioxins/furans toxic equiv. | ng/dscm | 0.10 | 0.016 | 0.016 |
| mercury (Hg) | mg/dscm | 0.037 | 0.018 | 0.018 |
| oxides of nitrogen (NO _x) | ppmvd | 150 | 56 | 56 |
| sulfur dioxide (SO ₂) | ppmvd | 15 | 2.6 | 2.6 |
| cadmium (Cd) | mg/dscm | 0.0016 | 0.00045 | 0.00045 |
| lead (Pb) | mg/dscm | 0.0074 | 0.0010 | 0.0010 |

3.2.2 Performance Test Basis

The second method used to calculate an emissions inventory was based on EPD's records of performance tests conducted at the facilities to satisfy air permit requirements. Test data is available for a small number of the nine SSI guideline pollutants from the different facilities and can be found at EPA's AIRS Facility Subsystem (AFS). Particulate matter, carbon monoxide, mercury, and oxides of nitrogen are the only pollutants for which test data is available. A summary of the test data is presented in Table 3-5, with all test results converted to the units of the MMMM standard. It should be emphasized that the MMMM limits did not apply when these tests were performed.

Tests were performed on INC1 at R.M. Clayton for mercury, oxides of nitrogen, and particulate matter in 2003, 2007, and 2008, respectively. Tests were performed on INC2 at Utoy Creek for carbon monoxide and oxides of nitrogen in May 2007. All of these test results were below the respective MMMM limits. There is no test data for R.M. Clayton INC2 or Utoy Creek INC1.

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Tests were performed on both units at R.L. Sutton in March and April of 2008. Mercury test results for both incinerators were more than twice the MMMM mercury limit. Test results for particulate matter, carbon monoxide, and NO_x were below the respective MMMM limits.

Mercury and particulate matter tests were performed on both units at the City of Savannah in February 2005. All of these results were below the respective MMMM limits.

3.2.3 Summary

Under the "EPA Basis" method, the calculated emissions rate is below the MMMM limit for all pollutants from all Georgia SSI units with the exception of cadmium and lead at the R.M. Clayton units. However, the emissions controls that EPA assigned for estimating emissions are probably not correct in the case of the R.M. Clayton and Utoy Creek units. In addition, the "EPA Basis" methods are based on average test results from a select group of non-Georgia facilities, the sludge characteristics of these facilities may not match those of the Georgia facilities, and the standard control efficiencies that were used may not match those of the controls on Georgia's SSI units. Therefore, there is a high degree of uncertainty as to whether the "EPA Basis" estimates are representative of the actual emissions from any of Georgia's existing SSI units.

Under the "performance test basis" method, limited performance test data is available for some facilities for one or more of the following four pollutants: PM, CO, Hg, and NO_x. None of the five units tested exceeded the limit for PM. Neither of two units tested exceeded the limit for CO. Two of five units tested exceeded the limit for Hg. None of four units tested exceeded the limit for NO_x. These test results may be more representative of actual emissions from Georgia's facilities than the estimates from the "EPA Basis" method. However, because they are so limited in scope with respect to the SSI emissions guidelines pollutants, they do not give a comprehensive picture of the ability of Georgia's SSI units, with their current controls, to meet the emissions limits of the SSI emissions guidelines.

Table 3-5. Performance Test Results for Selected Pollutants

| Pollutant | Meas. Units | MMMM Limit - Mult. Hearth | R.M. Clayton INC1 | Utoy Creek INC2 | City of Savannah Incin. 1 | City of Savannah Incin. 2 | MMMM Limit - Fl. Bed | R.L. Sutton INC3 | R.L. Sutton INC4 |
|---------------------------------------|-------------|---------------------------|-------------------|-----------------|---------------------------|---------------------------|----------------------|------------------|------------------|
| particulate matter (PM) | mg/dscm | 80 | 0.079 | - | 30 | 18 | 18 | 0.205 | 14 |
| carbon monoxide (CO) | ppmvd | 3,800 | - | 2384 | - | - | 64 | 0.30 | 2.7 |
| mercury (Hg) | mg/dscm | 0.28 | 0.0040 | - | 0.069 | 0.062 | 0.037 | *0.082 | *0.085 |
| oxides of nitrogen (NO _x) | ppmvd | 220 | 108 | 153 | - | - | 150 | 51 | 62 |

* test result is above the MMMM emissions limit.

4.0 Model Rule

As part of the 40CFR60 Subpart M regulation, EPA has provided a model rule in sections 60.5085 through 60.5250. The model rule addresses the regulatory requirements applicable to SSI units. Specifically, it addresses the following components:

- Compliance schedules;
- Emission limits, emissions standards, operator training and qualification requirements, and operating limits ; and
- Performance testing, recordkeeping, and reporting requirements.

States are free to adopt the model rule or portions of it, or they may formulate their own regulations as long as they are not less stringent than the model rule. Georgia has adopted the model rule with the exception of the performance testing, recordkeeping, and reporting requirements. These requirements are addressed in Sections 2.130.2 through 2.130.4 of the Georgia EPD Air Branch's PTM.

5.0 Operator Training and Qualification

40 CFR 60 Subpart M requires existing SSI units to be operated by trained and qualified operators. Incinerator operators are required to complete both initial and annual refresher training. The initial training must include, at a minimum, the following topics:

- environmental concerns, including types of emissions and SSI emissions limits under Georgia rule 391-3-1-.02(www);
- basic combustion principles, including products of combustion;
- operation of the facility's specific type(s) of incinerator, including startup and shutdown procedures and sewage sludge feeding procedures;
- combustion controls and monitoring;
- operation of the facility's specific type(s) of air pollution control equipment, if applicable, and factors affecting performance;
- inspection and maintenance of the incinerator and, if applicable, air control devices;
- actions to prevent malfunctions or to prevent conditions that may lead to malfunctions;
- bottom and fly ash characteristics and handling procedures;
- applicable Federal, State, and local regulations, including OSHA workplace standards;
- pollution prevention ; and
- reporting and recordkeeping procedures.

In addition, the operator must take and pass an examination designed and administered by a State-approved program, per 40 CFR 60.5130(c)(2). The operator must be provided with written material covering the training topics that can be used as reference material.

To maintain operator qualification, annual refresher training is required. The training must include the following topics:

- update of regulations;
- operation of the facility's specific type(s) of incinerator, including startup and shutdown procedures, sewage sludge feeding procedures, and ash handling procedures;
- inspection and maintenance;
- prevention of malfunctions or conditions that may lead to malfunctions; and
- discussion of operating problems encountered by attendees.

Affected facilities must provide or arrange for the required training for operators that they will designate as qualified operators. The training examination(s) must be approved by Georgia EPD. Other elements of a facility's training and qualification program may require State approval at Georgia EPD's discretion. Detailed requirements for operator training and qualification will be stipulated by an amendment to the facility's Title V permit.

6.0 Compliance Dates and Increments of Progress

40 CFR 60.5035 requires the State plan to include compliance schedules for SSI units. The intent is for facilities to demonstrate compliance as expeditiously as practicable after approval of the State plan. Under Georgia's State plan, existing SSI units must achieve compliance not later than March 21, 2016, or three years after the effective date of state plan approval by EPA, whichever is earlier. Achievement of compliance includes demonstration that a unit is meeting the emissions limits and standards (see Section 2.1.1) and is also meeting operating limits and requirements. Compliance with the emissions limits and standards may be demonstrated by (1) performance testing or (2) by the use of a continuous emissions monitoring system (CEMS) or continuous automated sampling system (reference 40 CFR 60.5185).

If the owner/operator of an SSI unit does not demonstrate compliance within one year of the date of State plan approval or by September 21, 2014, whichever comes first, then the owner/operator must meet enforceable increments of progress. The increments of progress are as follows:

- Increment 1: submit a final control plan; and
- Increment 2: achieve final compliance.

The final control plan for each affected unit shall be submitted to Georgia EPD not later than September 21, 2014. This schedule allows a minimum of 18 months for design, purchase, contracting, installation, and testing of controls. Final compliance shall be demonstrated not later than March 21, 2016, or three years after State plan approval, whichever is earlier. The requirements for increments of progress are summarized below. All of the requirements are contained in 40 CFR 60.5085 through 40 CFR 60.5125.

The final control plan must include, for each SSI, a description of the air pollution control devices and/or process changes that will be used to achieve final compliance. It must also include a description of the types of waste to be burned, if waste other than sewage sludge will be burned, and

the maximum design sewage sludge burning capacity. If applicable, the control plan must also include the petition for site-specific operating limits (see 40 CFR 60.5175).

To comply with the final compliance increment of progress, the owner/operator must complete all process changes and construction/retrofit of control devices as specified in the control plan. All process changes and air pollution control devices must operate as designed.

A compliance timeline is presented in Table 6-1. The timeline was constructed assuming that the State plan will be approved after March 21, 2013. If approval comes earlier than that date, compliance with the EG emissions limits will be required three years from the date that plan approval is published in the Federal Register. The schedule for the various compliance elements will be incorporated into the Title V permit of each affected facility.

Table 6-1. SSI Compliance Timeline

| Compliance Element | 2014 | 2015 | 2016 | Comments |
|--|--------------------|-------------|--------------------------------|--|
| Control Plan (Incr. of Progress) | 9-21 | | | Required if compliance will be later than 1 yr after plan approval or after 9-21-2014, whichever is earlier |
| Compliance with EG Limits (Incr. of Progress) | | | 3-21 | Assumes approval of State plan after 3-21-2013; requires performance test; <u>facility not allowed to operate SSI</u> without a trained and qualified operator from this day forward |
| Title V permit application | 3-21 (Savannah) | | | Facilities with existing TV permits – TV renewal or permit mod to add controls |
| Facility initial compliance report | | | 60 days after performance test | |
| Facility annual compliance report | | | | Due with first regular Title V report that follows initial compliance report; annual thereafter |

7.0 Performance Testing, Record Keeping, and Reporting

Performance testing, monitoring, and calibration requirements are specified in 40 CFR 60.5220 and 60.5225, "Model Rule for Performance Testing, Monitoring, and Calibration Requirements". In lieu of these requirements, Sections 2.130.2 and 2.130.3 of Georgia EPD's PTM shall apply to each of Georgia's existing SSI units. Record keeping and reporting requirements are specified in 40 CFR 60.5230 and 60.5235d, e, g, h, and i, "Model Rule for Record Keeping and Reporting Requirements". In lieu of these requirements, Section 2.130.4 of the PTM shall apply to each of Georgia's existing SSI units. The PTM requirements are at least as protective as the Model Rule elements referenced above.

8.0 Operating Limits and Requirements

Operating limits and requirements for existing SSI units are specified in Section 2.130.2 of Georgia's PTM. Section 2.130.2 implements the emissions guideline requirements of 40 CFR 60.5170, 60.5175, and 60.5180. Operators of SSI units must establish operating limits/requirements that include, but may not be limited to, the following:

- Combustion chamber operating temperature,
- Fugitive emissions from ash handling,
- Sludge feed rate and moisture content,
- Wet scrubber operation,
- Fabric filter operation,
- Electrostatic precipitator operation,
- Activated carbon injection, and
- Afterburner operating temperature.

If a device or method other than those listed above is used to control emissions, the facility must establish appropriate operating limits for such device or method as required by Section 2.130.2 of the PTM.

9.0 State Progress Reports

40 CFR 60.5015(a)(7) and 40 CFR 60.25(e) require the State to submit reports on progress in plan enforcement to the Administrator on an annual basis. The reporting period is the calendar year. The first report must cover the first full calendar year after approval of the State plan. Each progress report must include:

-
- Enforcement actions taken against designated facilities;
 - Identification of the achievement of any increment of progress;
 - Identification of designated facilities that have ceased operation;
 - Emissions inventory data for designated facilities that were not in operation at the time of plan development but began operation during the reporting period;
 - Submission of additional data as necessary to update the plan's original facility or emissions inventories or to update information reported in previous progress reports; and
 - Copies of technical reports on all performance testing complete with concurrently recorded process data.

10.0 Title V Permits

Rule (www) requires each owner or operator of an existing SSI unit whose operation is not permitted in a Title V permit to submit a Title V application for the subject unit's operation. The application must be submitted to the Division no later than March 21, 2014. Those facilities that have Title-V permitted SSI units which need to add air pollution controls to comply with the emissions limits will need to submit Title V applications for the controls. These applications must be submitted in time to obtain a final permit modification prior to the compliance date for the SSI emissions guidelines. The permits of facilities that have Title V permits but do not need to add controls will be amended to address the SSI emissions guidelines in accordance with the typical practice of EPD's Stationary Source Permitting Program. Table 3-1 shows which facilities have Title V permits as of the cover date of this plan.

11.0 Other Plan Requirements

Other plan requirements include:

- Documentation of public notification and participation
- Identification of enforceable state mechanisms for implementing the emission guidelines
- Demonstration of the State's legal authority to carry out the plan

These requirements are addressed below.

11.1 Documentation of Public Notification and Participation

Public notice of the proposed State plan and the opportunity to comment on it was posted on September 17, 2012. A public hearing on the State plan was held at 1:00 p.m. on October 23, 2012, at the Environmental Protection Division Training Center, Atlanta Tradeport, 4244 International Parkway, Suite 116, Atlanta, GA 30354. No comments were received from the public.

11.2 Identification of enforceable state mechanisms for implementing the emission guidelines

40 CFR Part 60 Subpart M “Emissions Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units” were adopted as Rule 391-3-1-.02(2)(www) of the Georgia Rules for Air Quality Control. Rule (www) was submitted to EPA on July 26, 2012, for incorporation into Georgia’s State Implementation Plan. The rule became effective on August 9, 2012.

11.3 Demonstration of the State’s legal authority to carry out the plan

The Georgia Air Quality Act, Article 1: Air Quality (O.C.G.A. 12-9, et. seq.) provides the necessary legal authority under State law to adopt the emissions guidelines and to implement the State plan. The Act, in its entirety, is located at <http://www.lexis-nexis.com/hottopics/gacode/> under Title 12, Chapter 9, Article 1. A copy of Sections 1 through 6 of Article 1 is provided as Appendix C to this plan.

12.0 Plan Revisions by the State

Requirements for plan revisions by the State are addressed in 40 CFR 60.28. A revision of the plan is subject to public hearing [reference 40 CFR 60.23(c)] and to approval by USEPA [reference 40 CFR 60.28(c)].

13.0 References

Eastern Research Group, Inc., "Revised Estimation of Baseline Emissions from Existing Sewage Sludge Incineration Units," memo to Amy Hambrick, USEPA, January 2011 (docket EPA-HQ-OAR-2009-0559-0154)

Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Industrial Source Monitoring Program: Procedures for Testing and Monitoring of Sources of Air Pollution

State of Georgia, Rules for Air Quality Control, Rule 391-3-1-.02(www): Sewage Sludge Incineration Units Constructed On or Before October 14, 2010

Appendix A

**State of Georgia, Rules for Air Quality
Control, Rule 391-3-1-.02(www):**

**Sewage Sludge Incineration Units
Constructed On or Before October 14,
2010**

Current as of 8-9-2012

Rule 391-3-1-.02(2)(www) - Sewage Sludge Incineration Units Constructed On or Before October 14, 2010

1. The provisions of this subsection apply to each sewage sludge incineration (SSI) unit that is located at a wastewater treatment facility and that commenced construction on or before October 14, 2010 (hereinafter referred to as "existing SSI unit"). Physical or operational changes made at an existing SSI unit solely to comply with this subsection are not considered construction, reconstruction, or modification and would not subject an existing SSI unit to the requirements of 40 CFR Part 60, Subpart LLLL, which contains the "Standards of Performance for Sewage Sludge Incineration Units for Which Construction is Commenced After October 14, 2010".

2. For the purposes of implementing the requirements and provisions of 40 CFR Part 60, Subpart MMMM (Emission Guidelines and Compliance Times for Existing Sewage Sludge Incineration Units), each existing SSI unit shall comply with the standards, requirements, and provisions of 40 CFR Part 60, Subpart MMMM, as promulgated March 21, 2011, which are hereby incorporated and adopted by reference, with the following exceptions:

(i) Emission Limits, Emission Standards, and Operating Limits and Requirements. In lieu of 40 CFR 60.5170 through 60.5180, Sections 2.130.2 through 2.130.4 of the Georgia Department of Natural Resources **Procedures for Testing and Monitoring Sources of Air Pollutants** shall apply to each existing SSI unit.

(ii) Initial and Continuous Compliance Requirements. In lieu of 40 CFR 60.5185 through 60.5215, Sections 2.130.2 through 2.130.4 of the Georgia Department of Natural Resources **Procedures for Testing and Monitoring Sources of Air Pollutants** shall apply to each existing SSI unit.

(iii) Performance Testing, Monitoring, and Calibration Requirements. In lieu of 40 CFR 60.5220 through 60.5225, Sections 2.130.2 through 2.130.4 of the Georgia Department of Natural Resources **Procedures for Testing and Monitoring Sources of Air Pollutants** shall apply to each existing SSI unit.

(iv) Record keeping and Reporting Requirements. In lieu of 40 CFR 60.5230 and 60.5235 (d, e, and g), Sections 2.130.2 through 2.130.4 of the Georgia Department of Natural Resources **Procedures for Testing and Monitoring Sources of Air Pollutants** shall apply to each existing SSI unit.

3. In keeping with subparagraph 2., owners and operators of existing SSI units must comply with Georgia's state plan for existing SSI units, which is required by 40 CFR Part 60, Subpart MMMM. The owner or operator of each existing SSI unit shall comply with the requirements of 391-3-1-.02(2)(www)(2) by March 21, 2016 or three years after the effective date of state plan approval by U.S. EPA, whichever is earlier.

4. Each existing SSI unit is subject to the permitting requirements of 391-3-1-.03(10) "Title V Operating Permits". Each owner or operator of an existing SSI unit shall submit a Title V application to the Division no later than March 21, 2014.

5. Definitions of all terms used but not defined in this subsection shall have the meaning given to them in 40 CFR Part 60, Subpart MMMM, as amended. Terms not defined therein shall have

the meaning given to them in the federal Clean Air Act or 40 CFR Part 60, Subparts A and B. For the purposes of this subsection the following definitions also apply:

- (i) The term "Administrator" as used in regulations adopted in this subsection shall mean the Director of the Georgia Environmental Protection Division.
- (ii) The term "EPA" as used in regulations adopted in this subsection shall mean the Georgia Environmental Protection Division.

Appendix B

**Georgia Department of Natural
Resources, Environmental Protection
Division, Air Protection Branch,
Industrial Source Monitoring
Program:**

**Procedures for Testing and
Monitoring of Sources of Air Pollution**

**Section 2.130 Sewage Sludge
Incineration Units (Constructed on or
before October 14, 2010)**

Current as of 8-31-2012

2.130**Sewage Sludge Incineration Units (Constructed on or before October 14, 2010)****2.130.1****Applicability and Definition of Affected Facility**

- (a) The provisions of this source category shall apply to each Sewage Sludge Incineration (SSI) unit as defined in Georgia Department of Natural Resources Rules for Air Quality Control (Georgia Rule) 391-3-1-.02(2)(www) for which construction is commenced on or before October 14, 2010, except as provided in paragraph (b) of this section.

(b) Any combustion unit that incinerates sewage sludge and is not located at a wastewater treatment facility designed to treat domestic sewage sludge is exempt from this section.

2.130.2**Test Methods and Procedures and Compliance Provisions**

- (a) The operating limits under this section shall apply at all times the unit is operating and during periods of malfunction. The emission limits and standards shall apply to emissions from a bypass stack or vent while sewage sludge is in the combustion chamber (i.e., until the sewage sludge feed to the combustor has been cut off for a period of time not less than the sewage sludge incineration residence time). For determining compliance with the Carbon Monoxide (CO) concentration limit using a CO Continuous Emissions Monitoring System (CEMS), the correction to 7 percent oxygen (O₂) shall not apply during periods of startup or shutdown. The owner or operator of the affected facility shall use the measured CO concentration without correcting for oxygen concentration in averaging with other CO concentrations (corrected to 7 percent O₂) to determine the twenty-four hour average value.
- (b) The owner or operator of an affected facility shall meet, as applicable, the operating limits and requirements in paragraphs 2.130.2(f)(1) through (f)(4) and (f)(8) of this section and according to the schedule specified in paragraph 2.130.2(f)(5) of this section. The operating parameters for which the operating limits will be established for a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection are listed in Table 2 of this section. The owner or operator of an affected facility shall comply with the operating requirements in paragraph 2.130.2(f)(6) of this section and the requirements in paragraph 2.130.2(f)(7) of this section for meeting any new operating limits, re-established in Section 2.130.3(b) of this text.
- (c) The owner or operator of an affected facility shall demonstrate initial compliance with the emission limits and standards in Georgia Rule (www) using the procedures specified in this paragraph. In lieu of using the procedures specified in this paragraph, the owner or operator of an affected facility may demonstrate initial compliance following the procedures specified in paragraph 2.120.2(e) of this section for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling. The owner or operator shall meet the requirements of this paragraph and paragraph 2.120.2(e), as applicable, and paragraphs (c)(13) and 2.130.4(b)(2) of this section, according to the performance testing, monitoring, and calibration requirements in paragraphs 2.130.2(c) and 2.130.3(d) of this section. All performance tests shall consist of a minimum of three test runs conducted under conditions representative of normal operations, as specified in Section 1.2 of this text. Emissions in excess of the emission standards of Georgia Rule (www)

during periods of startup, shutdown, and malfunction are considered deviations from the applicable emission limits or standards.

- (1) The owner or operator shall demonstrate initial compliance using the performance test required in Section 1.2 of this text. The owner or operator shall demonstrate initial compliance for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury, cadmium, lead, and fugitive emissions from ash handling using the performance test. The initial performance test shall be conducted using the test methods, averaging methods, and minimum sampling volumes or durations specified in this section and according to the testing, monitoring, and calibration requirements specified in this paragraph.
 - (i) The owner or operator of an affected facility shall demonstrate compliance as required in Section 1.2 of this text by the compliance date specified in Georgia Rule (www).
 - (ii) The owner or operator of an affected facility may use the results from a performance test conducted within the two previous years that was conducted under the same conditions and demonstrated compliance with the emission limits and standards in Georgia Rule (www), provided no process changes have been made since the conduct of the performance test. However, the owner or operator shall continue to meet the operating limits established during the most recent performance test that demonstrated compliance with the emission limits and standards of Georgia Rule (www). The performance test must have used the test methods specified in this paragraph.
- (2) The owner or operator of an affected facility shall document that the dry sludge burned during the performance test is representative of the sludge burned under normal operating conditions as follows:
 - (i) A log shall be maintained of the quantity of sewage sludge burned by continuously monitoring and recording the average hourly rate that the sewage sludge is fed to the incinerator.
 - (ii) A log shall be maintained of the moisture content of the sewage sludge burned by taking grab samples of the sewage sludge fed to the incinerator for each eight (8) hour period that the performance test is conducted.
- (3) The minimum sample time shall be 1 hour (60 minutes) per test run unless otherwise indicated.
- (4) During each test run specified in this section, the owner or operator of an affected facility must operate the SSI at a minimum of eighty-five (85) percent of the unit's maximum capacity.
 - (5) Method 1 of Appendix A of this text shall be used to select the sampling location and number of traverse points.
 - (6) Method 3A or 3B of Appendix A of this text shall be used for gas composition analysis, including measurement of oxygen concentration. Method 3A or 3B of Appendix A of this text shall be used simultaneously with each reference method.

- (7) All pollutant concentrations shall be adjusted to 7 percent oxygen using the following equation:

$$C_{adj} = C_{meas} (20.9-7)/(20.9-\%O_2) \quad (\text{Eq. 1})$$

where:

C_{adj} = pollutant concentration adjusted to 7 percent oxygen;

C_{meas} = pollutant concentration measured on a dry basis;

$(20.9-7)$ = 20.9 percent oxygen - 7 percent oxygen (defined oxygen correction basis);

20.9 = oxygen concentration in air, percent; and

$\%O_2$ = oxygen concentration measured on a dry basis, percent.

- (8) Method 5, 26A, or 29 of Appendix A of this text shall be used to measure the particulate matter (PM) emissions.

(i) For tests conducted on fluidized bed units, the minimum sample volume of each test run shall be one (1) dry standard cubic meter.

(ii) For tests conducted on multiple hearth units, the minimum sample volume shall be 0.75 dry standard cubic meters per run.

- (9) Method 6 or 6C of Appendix A of this text shall be used to measure the sulfur dioxide (SO_2) emissions.

(i) For Method 6 of Appendix A of this text conducted on fluidized bed units, the minimum sample volume for each test run shall be 60 liters.

(ii) For Method 6 of Appendix A of this text conducted on multiple hearth units, the minimum sample volume shall be 200 liters.

- (10) Method 7 or 7E of Appendix A of this text shall be used to measure the nitrogen oxide (NO_x) emissions.

- (11) Method 10, 10A, or 10B of Appendix A of this text shall be used to measure the carbon monoxide (CO) emissions.

- (12) Method 22 of Appendix A of this text shall be used to determine the fugitive emissions from ash handlings. The test shall consist of three 1-hour observation periods.

- (13) Method 23 of Appendix A of this text shall be used to measure dioxin/furan emissions. The minimum sample volume for each test run shall be one (1) dry standard cubic meter. The dioxin/furan toxic equivalency shall be determined using the following procedures:

(i) Measure the concentration of each dioxin/furan tetra- through octachlorinated-isomer emitted using Method 23 of Appendix A of this text.

- (ii) For each dioxin/furan congener measured in accordance with (c)(13)(i) of this paragraph, multiply the concentration of each congener by its corresponding toxic equivalency factor specified in Table 1 of this section.

TABLE 1. TOXIC EQUIVALENCY FACTORS

| Dioxin/furan congener | Toxic equivalency factor |
|---|--------------------------|
| 2,3,7,8-tetrachlorinated dibenzo-p-dioxin | 1 |
| 1,2,3,7,8-pentachlorinated dibenzo-p-dioxin | 0.5 |
| 1,2,3,4,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzo-p-dioxin | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzo-p-dioxin | 0.01 |
| octachlorinated dibenzo-p-dioxin | 0.001 |
| 2,3,7,8-tetrachlorinated dibenzofuran | 0.1 |
| 2,3,4,7,8-pentachlorinated dibenzofuran | 0.5 |
| 1,2,3,7,8-pentachlorinated dibenzofuran | 0.05 |
| 1,2,3,4,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,7,8,9-hexachlorinated dibenzofuran | 0.1 |
| 2,3,4,6,7,8-hexachlorinated dibenzofuran | 0.1 |
| 1,2,3,4,6,7,8-heptachlorinated dibenzofuran | 0.01 |
| 1,2,3,4,7,8,9-heptachlorinated dibenzofuran | 0.01 |
| octachlorinated dibenzofuran | 0.001 |

- (iii) Sum the products calculated in accordance with (c)(13)(ii) of this paragraph to obtain the total concentration of dioxins/furans emitted in terms of toxic equivalency.

- (14) Method 26A of Appendix A of this text shall be used to measure hydrogen chloride (HCl) emissions. The minimum sample volume shall be one (1) dry standard cubic meter per run.
 - (i) For tests conducted on multiple hearth units, Method 26 of Appendix A of this text may also be used to measure the hydrogen chloride (HCl) emissions. Each test run shall have a minimum sample volume of 200 liters.
 - (15) Method 29 of Appendix A of this text shall be used to measure lead (Pb) and Cadmium (Cd) emissions. The minimum sample volume of each run shall be one (1) dry standard cubic meter.
 - (16) Method 29 or 30B of Appendix A of this text shall be used to determine mercury (Hg) emissions.
 - (i) For tests conducted using Method 29 of Appendix A of this text, the minimum sample volume of each run shall be one dry standard cubic meter.
 - (ii) For tests conducted using Method 30B of Appendix A of this text, the minimum sample volume for each run shall be collected as specified in Method 30B of Appendix A of this text.
 - (17) The owner or operator of an affected facility shall provide the Director with at least 30 days prior notice of any performance test, except as specified under other sections of this text, to afford the Director the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator shall notify the Director as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the Director by mutual agreement.
- (d) Continuous compliance with the emission limits and standards specified in Georgia Rule (www) shall be demonstrated using the procedures specified in this paragraph. In lieu of the procedures specified in this paragraph, the owner or operator of an affected facility may demonstrate compliance with the procedures specified in paragraph 2.130.2(e) of this section for particulate matter, hydrogen chloride, carbon monoxide, dioxin/furans (total mass basis or toxic equivalency basis), mercury, nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions from ash handling. The owner or operator shall meet the requirements of this paragraph and paragraph 2.130.2(e), as applicable, and paragraphs 2.130.2(c)(13) and 2.130.4(b)(3) of this section, according to the performance testing, monitoring, and calibration requirements in paragraphs 2.130.2(c) and 2.130.3(d) of this section. The owner or operator may petition the Director for alternative monitoring parameters as specified in paragraphs 2.130.3(a)(5) and 2.130.4(f) of this section.
- (1) Continuous compliance shall be demonstrated through a performance test. Except as provided in (d)(4) of this paragraph, following the date that the initial performance test for each pollutant is completed, the owner or operator of an affected facility shall demonstrate compliance with the particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis), mercury,

nitrogen oxides, sulfur dioxide, cadmium, lead, and fugitive emissions limits by conducting a performance test for each SSI unit on an annual basis (between 11 to 13 months following the previous performance test). The performance test shall be conducted using the applicable test methods, averaging methods, and minimum sampling volumes or durations and the testing, monitoring, and calibration requirements specified in paragraph 2.130.2(c) of this section.

- (2) The owner or operator of an affected facility may conduct repeat performance test at any time to establish new values for the operating limits to apply from that point forward. The Director may request a repeat performance test at any time.
- (3) The owner or operator of an affected facility shall repeat the performance test within 60 days of a process change, as defined in 40 CFR 60.5250*.
- (4) Except as specified in (d)(2) and (3) of this paragraph, a performance test may be conducted less often for a given pollutant, as specified in (d)(4)(i) through (iii) of this paragraph.
 - (i) The owner or operator of an affected facility may conduct performance tests less often if the performance test for the pollutant for at least two consecutive years demonstrate that the SSI unit's emissions are at or below 75 percent of the applicable emission limit specified in Georgia Rule (www) and there are no changes in the operation of the affected source or air pollution control equipment that could increase emissions. The owner or operator of an affected facility may forego a performance test for that pollutant for the next 2 years. A performance test shall be conducted during the third year and no more than 37 months after the previous performance test.
 - (ii) If the SSI unit continues to demonstrate compliance for a pollutant at or below 75 percent of the applicable emissions limit in Georgia Rule (www) and there are not changes in the operation of the affected source or air pollution control equipment that could increase emissions, the owner or operator of an affected facility may conduct a performance test for these pollutants every third year, but each test shall be conducted within 37 months following the previous performance test.
 - (iii) If any performance test shows emissions exceeded 75 percent of the applicable emissions limit in Georgia Rule (www), the owner or operator of an affected facility shall conduct annual performance tests for that pollutant until all performance tests over a 2 year consecutive period indicate compliance.
- (e) The owner or operator of an affected facility may demonstrate initial and/or continuous compliance using a continuous emissions monitoring system (CEMS) or continuous automated sampling system. The option to use a CEMS for hydrogen chloride, dioxins/furans, cadmium, or lead is applicable on the date a performance specification is incorporated into this text. The option to use a continuous automated sampling system for dioxins/furans is applicable on the date a performance specification is incorporated into this text. The owner or operator shall collect data as specified in paragraph 2.130.3(d)(6) of this section and use the following procedures:

- (1) To demonstrate initial or continuous compliance with the emission limits specified in Georgia Rule (www) for particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans (total mass basis or toxic equivalency basis) mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead, the owner or operator of an affected facility may substitute the use of a continuous monitoring system in lieu of conducting the initial and/or annual performance tests required in paragraphs 2.130.2(c)(1) and (d) of this section as follows:
 - (i) The use of a CEMS may be substituted for any pollutants specified in paragraph 2.130.2(d) of this section in lieu of conducting the performance test for that pollutant in paragraphs 2.130.2(c)(1) or (d) of this section. For determining compliance with the carbon monoxide concentration limit using carbon monoxide CEMS, the correction to 7 percent oxygen does not apply during periods of startup or shutdown. The measured carbon monoxide concentration without correcting for oxygen concentration in averaging with other carbon monoxide concentrations (corrected to 7 percent oxygen) shall be used to determine the 24-hour average.
 - (ii) The owner or operator of an affected facility may substitute the use of a continuous automated sampling system for mercury or dioxins/furans in lieu of conducting the initial and/or annual performance test required by paragraphs 2.130.2(c)(1) and (d) of this section.
- (2) If the owner or operator of an affected facility uses a continuous emissions monitoring system to demonstrate compliance with an applicable emission limit of Georgia Rule (www), the CEMS must be used and the owner or operator of the affected facility must follow the requirements in paragraph 2.130.3(d) of this section. The emissions shall be measured according to Section 1.4 of this text to calculate 1-hour arithmetic averages, corrected to 7 percent oxygen (or carbon dioxide). Compliance shall be demonstrated using a 24-hour block average of these 1-hour arithmetic average emission concentrations, calculated according to Equation 19-19 in section 12.4.21 of Method 19 in Appendix A of this text.
- (3) If the owner or operator of an affected facility uses a continuous automated sampling system to demonstrate compliance with an applicable emission limit of Georgia Rule (www), the owner or operator shall:
 - (i) Use the continuous automated sampling system specified in 40 CFR 60.58b(p) and (q)*, and measure and calculate the average emissions corrected to 7 percent oxygen (or carbon dioxide) according to §60.58b(p)* and the monitoring plan described in paragraph 2.130.3.(a) of this section.
 - (A) The owner or operator of an affected facility shall use the procedures specified in §60.58b(p)* to calculate 24-hour block averages to determine compliance with the mercury emissions limit of Georgia (www).

- (B) The owner or operator of an affected facility shall use the procedures specified in §60.58b(p)* to calculate 2-week averages to determine compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limits of Georgia Rule (www).
 - (ii) The owner or operator of an affected facility shall comply with the provisions in 40 CFR 60.58(q)* to develop the monitoring plan specified in paragraph 2.130.3(a) of this section. For mercury continuous automated sampling systems, the owner or operator of an affected facility shall use Performance Specification 12B of Appendix B of this text and Procedure 5 of Appendix F of this text.
- (4) The owner or operator of an affected facility shall complete the initial performance evaluations required under the monitoring plan specified in paragraph 2.130.3(a) of this section for any continuous emissions monitoring systems and continuous automated sampling systems by the final compliance date of Georgia Rule (www). Subsequent performance evaluations shall be performed according to the schedule specified in the monitoring plan. If the owner or operator of an affected facility previously determined compliance by the conduct of an annual performance test (or according to the less frequent testing for a pollutant as provided in paragraph 2.130.2(d)(4) of this section), the owner or operator shall complete the initial performance evaluation required by the monitoring plan in Section 2.130.3(a) for the continuous emissions monitoring system or continuous automated sampling system to demonstrate compliance. The performance evaluation shall be conducted using the procedures and acceptance criteria specified in paragraph 2.130.3(a)(1)(iii) of this section.
- (f) The owner or operator of an affected facility shall meet, as applicable, the operating limits and requirements specified in (f)(1) through (f)(4) and (f)(8) of this paragraph. The operating parameters for which operating limits will be established for a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection are listed in Table 2 of this section. The owner or operator shall comply with the operating requirements in paragraph (f)(6) and the requirements in (f)(7) of this paragraph for meeting any new operating limits, re-established in paragraph 2.130.3(b). The operating limits apply at all times that sewage sludge is in the combustion chamber (*i.e.*, until the sewage sludge feed to the combustor has been cut off for a period of time not less than the SSI residence time).
 - (1) The owner or operator of an affected facility shall meet the site-specific operating limit for minimum operating temperature of the combustion chamber (or afterburner combustion chamber) established in paragraph 2.130.2(k) of this section.
 - (2) The owner or operator of an affected facility utilizing a wet scrubber, electrostatic precipitator, activated carbon injection, or afterburner to comply with the emission limits of Georgia Rule (www) shall meet the site-specific operating limits established in paragraphs 2.130.2(g) through (n) of this section for each operating parameter associated with each air pollution control device.
 - (3) The owner or operator of an affected facility utilizing fabric filter to comply with the emission limits of Georgia Rule (www) shall install the bag leak

detection system specified in paragraphs 2.130.3(a)(2) and 2.130.3(h)(3) of this section and operate the bag leak detection system such that the alarm does not sound more than 5 percent of the operating time during the 6-month period. The alarm time shall be calculated as specified in paragraph 2.130.3(b)(1)(ii)(A) of this section.

(4) The owner or operator of an affected facility shall meet the operating requirements of the site-specific fugitive emission monitoring plan submitted as specified in paragraph 2.130.3(a)(4) of this section to ensure the ash handling system shall meet the emission standard for fugitive emissions from ash handling as specified Georgia Rule (www).

(5) The owner or operator of an affected facility shall meet the operating limits and requirements specified in (f)(1) through (4) of this paragraph by the final compliance date under Georgia Rule (www).

(6) The owner or operator of an affected facility shall monitor the feed rate and moisture content of the sewage sludge fed to the SSI, as specified in (f)(6)(i) and (ii) of this paragraph.

(i) The owner or operator of an affected facility shall continuously monitor the sewage sludge feed rate and calculate a daily average for all hours of operation during each 24-hour period. The owner or operator shall maintain a record of the daily average feed rate, as specified in paragraph 2.130.4(a)(6)(iii)(2) of this section.

(ii) The owner or operator of an affected facility shall collect at least one grab sample per day of the sewage sludge fed to the SSI. If more than one grab sample per day is collected, the owner or operator shall calculate the daily average for the grab samples. A record of the daily average moisture content shall be kept, as specified in paragraph 2.130.4(a)(6)(iii)(2) of this section.

(7) For the operating limits and requirements specified in (f)(1) through (f)(4) and (f)(8) of this paragraph, the owner or operator of an affected facility shall meet any new operating limits and requirements, re-established according to paragraph 2.130.3(b)(4) of this section.

(8) If an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, or activated carbon injection is used to comply with the emission standards of Georgia Rule (www), the owner or operator of an affected facility shall meet any site-specific operating limits or requirements established in accordance with paragraph 2.130.2(o) of this section.

(g) The owner or operator of an affected facility shall establish the site-specific operating limits specified in paragraphs 2.130.2(h) through 2(n) of this section or established in 2.130.2(o), as applicable, during the initial performance test required by paragraph 2.130.2(c) of this section. The requirements of paragraph 2.130.3(b) of this section shall be met to confirm these operating limits or re-establish new operating limits using operating data recorded during any performance test or performance evaluations required in paragraphs 2.130.2(d) and (e) of this section. The owner or operator shall follow the data measurement and recording frequencies and data averaging times specified in Table 2 of this section or as established in paragraph 2.130.2(o) of this section, and the owner

or operator shall follow the testing, monitoring, and calibration requirements specified in Sections 2.130.2(c), 2.130.2(e), 2.130.3 or established in paragraph 2.130.2(o). The owner or operator of an affected facility is not required to establish operating limits for the operating parameters listed in Table 2 of this section if a continuous monitoring system is used to demonstrate compliance with the emission limits of Georgia Rule (www) for the applicable pollutants, as follows:

- (1) For a scrubber designed to control emissions of hydrogen chloride or sulfur dioxide, the owner or operator of an affected facility is not required to establish an operating limit and monitor scrubber liquid flow rate or scrubber liquid pH if the continuous monitoring system specified in paragraph 2.130.2(e) of this section is used to demonstrate compliance with the emission limit for hydrogen chloride or sulfur dioxide.
 - (2) For a scrubber designed to control emissions of particulate matter, cadmium, and lead, the owner or operator of an affected facility is not required to establish an operating limit and monitor pressure drop across the scrubber or scrubber liquid flow rate if the continuous monitoring system specified in paragraph 2.130.2(e) of this section is used to demonstrate compliance with the emission limit for particulate matter, cadmium, and lead.
 - (3) For an electrostatic precipitator designed to control emissions of particulate matter, cadmium and lead, the owner or operator of an affected facility is not required to establish an operating limit and monitor secondary voltage of the collection plates, secondary amperage of the collection plates or effluent water flow rate at the outlet of the electrostatic precipitator if the continuous monitoring system specified in paragraph 2.130.2(e) of this section is used to demonstrate compliance with the emission limit for particulate matter, cadmium, and lead.
 - (4) For an activated carbon injection system designed to control emissions of mercury, the owner or operator of an affected facility is not required to establish an operating limit and monitor sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) if the continuous monitoring system specified in paragraph 2.130.2(e) of this section is used to demonstrate compliance with the emission limit for mercury.
 - (5) For an activated carbon injection system designed to control emissions of dioxins/furans, the owner or operator of an affected facility is not required to establish an operating limit and monitor sorbent injection rate and carrier gas flow rate (or carrier gas pressure drop) if the continuous monitoring system specified in paragraph 2.130.2(e) of this section is used to demonstrate compliance with the emission limit for dioxins/furans (total mass basis or toxic equivalency basis).
- (h) The owner or operator of an affected facility shall establish the minimum pressure drop across each wet scrubber used to meet the particulate matter, lead, and cadmium emission limits of Georgia Rule (www) equal to the lowest 4-hour average pressure drop across each such wet scrubber measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits.
- (i) The owner or operator of an affected facility shall establish the minimum scrubber liquid flow rate (measured at the inlet to each wet scrubber) equal to the

lowest 4-hour average liquid flow rate measured during the most recent performance test demonstrating compliance with all applicable emission limits.

- (j) The owner or operator of an affected facility shall establish the minimum scrubber liquid pH for each wet scrubber used to meet the sulfur dioxide or hydrogen chloride emission limits of Georgia Rule (www) equal to the lowest 1-hour average scrubber liquid pH measured during the most recent performance test demonstrating compliance with the sulfur dioxide and hydrogen chloride emission limits.
- (k) The owner or operator of an affected facility shall establish the minimum combustion chamber operating temperature (or minimum afterburner temperature) equal to the lowest 4-hour average combustion chamber operating temperature (or minimum afterburner temperature) measured during the most recent performance test demonstrating compliance with all applicable emission limits.
- (l) The owner or operator of an affected facility shall establish the minimum power input to the electrostatic precipitator collection plates equal to the lowest 4-hour average secondary electric power measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits. Power input shall be calculated as the product of the secondary voltage and secondary amperage to the electrostatic precipitator collection plates. Both the secondary voltage and amperage must be recorded during the performance test.
- (m) The owner or operator of an affected facility shall establish the minimum effluent water flow rate at the outlet of the electrostatic precipitator equal to the lowest 4-hour average effluent water flow rate at the outlet of the electrostatic precipitator measured during the most recent performance test demonstrating compliance with the particulate matter, lead, and cadmium emission limits.
- (n) The owner or operator of an affected facility using activated carbon injection shall establish the site-specific operating limits specified in (n)(1) through (n)(3) of this paragraph.
 - (1) The minimum mercury sorbent injection rate shall be established equal to the lowest 4-hour average mercury sorbent injection rate measured during the most recent performance test demonstrating compliance with the mercury emission limit.
 - (2) The minimum dioxin/furan sorbent injection rate shall be established equal to the lowest 4-hour average dioxin/furan sorbent injection rate measured during the most recent performance test demonstrating compliance with the dioxin/furan (total mass basis or toxic equivalency basis) emission limit.
 - (3) The minimum carrier gas flow rate or minimum carrier gas pressure drop shall be established as follows:
 - (i) The minimum carrier gas flow rate shall be established equal to the lowest 4-hour average carrier gas flow rate measured during the most recent performance test demonstrating compliance with the applicable emission limit.
 - (ii) The minimum carrier gas pressure drop shall be established

equal to the lowest 4-hour average carrier gas pressure drop measured during the most recent performance test demonstrating compliance with the applicable emission limit.

- (o) The owner or operator of an affected facility using an air pollution control device other than a wet scrubber, fabric filter, electrostatic precipitator, activated carbon injection, or afterburner, or limit emissions in some other manner (e.g., materials balance), to comply with the emission limits under Georgia Rule (www) shall meet the requirements in (o)(1) and (o)(2) of this paragraph.
 - (1) The owner or operator of an affected facility shall meet the applicable operating limits and requirements in paragraphs 2.130.2(f) of this section and establish applicable operating limits according to paragraphs 2.130.2(g) through (n) of this section.
 - (2) The owner or operator of an affected facility shall petition the Director for specific operating parameters, operating limits, and averaging periods to be established during the initial performance test and continuously monitored thereafter. The owner or operator shall submit any supporting information in a timely manner to enable the Director to consider the application prior to the performance test. The owner or operator shall not conduct the initial performance test until after the petition has been approved by the Director, and the owner or operator must comply with the operating limits as written, pending approval by the Director. Neither submittal of an application nor the Director's failure to approve or disapprove the application relieves the owner or operator of an affected facility to comply with any provision of this section. The petition must include the five items listed in (o)(2)(i) through (v) of this paragraph:
 - (i) Identification of the specific parameters proposed to be monitored.
 - (ii) A discussion of the relationship between these parameters and emissions of regulated pollutants, identifying how emissions of regulated pollutants change with changes in these parameters, and how limits on these parameters will serve to limit emissions of regulated pollutants, including a discussion of the averaging periods associated with those parameters for determining compliance;
 - (iii) A discussion of how the upper and/or lower values for these parameters will be established to set the operating limits on these parameters;
 - (iv) A discussion identifying the methods that will be used for measurement and the instruments that will be used to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
 - (v) A discussion identifying the frequency and methods for recalibrating the instruments that will be used for monitoring these parameters.
- (p)
 - (1) The owner or operator of an affected facility shall conduct an air pollution control device inspection according to paragraph 2.130.3(e) by the final compliance date of Georgia Rule (www). For air pollution

control devices installed after the final compliance date, the owner or operator of an affected facility shall conduct the air pollution control device inspection within 60 days after installation of the control device.

- (2) Within 10 operating days following the air pollution control device inspection under (p)(1) of this paragraph, all necessary repairs shall be completed unless the owner or operator of an affected facility obtains written approval from the Director establishing a date whereby all necessary repairs of the SSI unit shall be completed.

2.130.3

Monitoring of operations

- (a) The owner or operator of an affected facility shall develop and submit to the Director for approval a site-specific monitoring plan for each continuous monitoring system required by this section, according to the requirements in (a)(1) through (3) of this paragraph. This section also applies if the owner or operator of an affected facility petitioned the Director for alternative monitoring parameters under Section 1.4(i) of this text and (a)(5) of this paragraph. If a continuous automated sampling system is utilized to comply with the mercury or dioxin/furan (total mass or toxic equivalency basis) emission limits of Georgia Rule (www), the owner or operator shall develop a monitoring plan as specified in 40 CFR 60.58b(q)* and the requirements of (a)(1) and (2) of this paragraph shall not apply. The owner or operator shall also submit a site-specific monitoring plan for the ash handling system, as specified in (a)(4) of this paragraph. The monitoring plan shall be submitted and updated as specified in (a)(6) through a(8) of this paragraph.
 - (1) For each continuous monitoring system, the owner or operator of an affected facility shall develop a monitoring plan that shall address the elements and requirements specified in (a)(1)(i) through (viii) of this paragraph. The owner or operator shall operate and maintain the continuous monitoring system in continuous operation according to the site-specific monitoring plan.
 - (i) Installation of the continuous monitoring system sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (e.g., on or downstream of the last control device).
 - (ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer and the data collection and reduction systems.
 - (iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations).
 - (A) For continuous emissions monitoring systems, the performance evaluation and acceptance criteria shall include, but is not limited to, the following:
 - (1) The applicable requirements for continuous emissions monitoring systems specified in Section 1.4 of this text.
 - (2) The applicable performance specifications (e.g., relative accuracy tests) in Appendix B of this text.
 - (3) The applicable procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) in Appendix F of this text.
 - (4) A discussion of how the occurrence and duration

of out-of-control periods will affect the suitability of CEMS data, where out-of-control has the meaning given in (a)(1)(vii)(A) of this paragraph.

(B) For continuous parameter monitoring systems, the performance evaluation and acceptance criteria shall include, but is not limited to, the following:

(1) If the owner or operator of an affected facility is subject to an operating limit that requires the use of a flow monitoring system, the requirements of (a)(1)(iii)(B)(1)(i) through (iv) of this paragraph shall be met.

(i) The flow sensor and other necessary equipment shall be installed in a position that provides representative flow.

(ii) The flow sensor used shall have a measurement sensitivity of no greater than 2 percent of the expected process flow rate.

(iii) The owner or operator shall minimize the effects of swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(iv) The owner or operator shall conduct a flow monitoring system performance evaluation in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

(2) If the owner or operator of an affected facility is subject to an operating limit that requires the use of a pressure monitoring system, the requirements of (a)(1)(iii)(B)(2)(i) through (vi) of this paragraph shall be met.

(i) The pressure sensor(s) shall be installed in a position that provides a representative measurement of the pressure (e.g., particulate matter scrubber pressure drop).

(ii) The owner or operator shall minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(iii) The owner or operator shall use a pressure sensor with a minimum tolerance of 1.27 centimeters of water or a minimum tolerance of 1 percent of the pressure monitoring range, whichever is

less.

- (iv) The owner or operator shall perform checks at least once each day to ensure pressure measurements are not obstructed (e.g., check for pressure tap pluggage daily).
 - (v) The owner or operator shall conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.
 - (vi) If at any time the measured pressure exceeds the manufacturer's specified maximum operating pressure range, the owner or operator shall conduct a performance evaluation of the pressure monitoring system in accordance with the monitoring plan and confirm that the pressure monitoring system continues to meet the performance requirements in the monitoring plan. Alternatively, the owner or operator may install and verify the operation of a new pressure sensor.
- (3) If the owner or operator of an affected facility is subject to an operating limit that requires the use of a pH monitoring system, the requirements of (a)(1)(iii)(B)(3)(i) through (iv) of this paragraph shall be met.
- (i) The owner or operator shall install the pH sensor in a position that provides a representative measurement of scrubber effluent pH.
 - (ii) The owner or operator shall ensure the sample is properly mixed and representative of the fluid to be measured.
 - (iii) The owner or operator shall conduct a performance evaluation of the pH monitoring system in accordance with the monitoring plan at least once each process operating day.
 - (iv) The owner or operator shall conduct a performance evaluation (including a two-point calibration with one of the two buffer solutions having a pH within 1 of the operating limit pH level) of the pH monitoring system in accordance with

the monitoring plan at the time of each performance test but no less frequently than quarterly.

- (4) If the owner or operator of an affected facility is subject to an operating limit that requires the use of a temperature measurement device, the requirements of (a)(1)(iii)(B)(4)(i) through (iv) of this paragraph shall be met.
 - (i) The owner or operator shall install the temperature sensor and other necessary equipment in a position that provides a representative temperature.
 - (ii) The owner or operator shall use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.
 - (iii) The owner or operator shall use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.
 - (iv) The owner or operator shall conduct a temperature measurement device performance evaluation at the time of each performance test but no less frequently than annually.
- (5) If the owner or operator of an affected facility is subject to an operating limit that requires the use of a secondary electric power monitoring system for an electrostatic precipitator, the requirements of (a)(1)(iii)(B)(5)(i) and (ii) of this paragraph shall be met.
 - (i) The owner or operator shall install sensors to measure (secondary) voltage and current to the electrostatic precipitator collection plates.
 - (ii) The owner or operator shall conduct a performance evaluation of the electric owner monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.

- (6) If the owner or operator of an affected facility is subject to an operating limit that requires the use of a monitoring system to measure sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), the requirements of (a)(1)(iii)(B)(6)(i) and (ii) of this paragraph shall be met.
 - (i) The owner or operator shall install the system in a position(s) that provides a representative measurement of the total sorbent injection rate.
 - (ii) The owner or operator shall conduct a performance evaluation of the sorbent injection rate monitoring system in accordance with the monitoring plan at the time of each performance test but no less frequently than annually.
- (iv) Ongoing operation and maintenance procedures in accordance with the general requirements of Section 1.3(d) of this text.
- (v) Ongoing data quality assurance procedures in accordance with the general requirements of Section 1.4 of this text.
- (vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of Sections 1.5(b), (c), (d), (e), (f) and (g) of this text.
- (vii) Provisions for periods when the continuous monitoring system is out of control, as follows:
 - (A) A continuous monitoring system is out of control if the conditions of (a)(1)(vii)(A)(1) or (2) of this paragraph are met.
 - (1) The zero (low-level), mid-level (if applicable), or high-level calibration drift exceeds two times the applicable calibration drift specification in the applicable performance specification or in the relevant standard.
 - (2) The continuous monitoring system fails a performance test audit (e.g., cylinder gas audit), relative accuracy test audit, or linearity test audit.
 - (B) When the continuous monitoring system is out of control as specified in (a)(1)(vii)(A) of this paragraph, the owner or operator of an affected facility shall take the necessary corrective action and shall repeat all necessary tests that indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The

beginning of the out-of-control periods is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this section. The end of the out-of-control period is the hour following the completion of correction action and successful demonstration that the system is within the allowable limits.

- (viii) Schedule for conducting initial and periodic performance evaluations of the continuous monitoring systems.
- (2) If a bag leak detection system is used to comply with the emission limitations of Georgia Rule (www), the monitoring plan shall include a description of the following items:
- (i) Installation of the bag leak detection system in accordance with paragraphs 2.130.3(a)(2)(i)(A) and (B) of this section.
 - (A) The bag leak detection sensor(s) shall be installed in a position(s) that will be representative of the relative or absolute particulate matter loadings for each exhaust stack, roof vent, or compartment (e.g., for a positive pressure fabric filter) of the fabric filter.
 - (B) The owner or operator shall use a bag leak detection system certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.
 - (ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established. The owner or operator of an affected facility shall use a bag leak detection system equipped with a system that will sound an alarm when the system detects an increase in relative particulate matter emissions over a preset level. The alarm shall be located where it is observed readily and any alert is detected and recognized easily by plant operating personnel.
 - (iii) Evaluations of the performance of the bag leak detection system, performed in accordance with the monitoring plan and consistent with the guidance provided in Fabric Filter Leak Detection Guidance, EPA-454/R-98-015, September 1997.
 - (iv) Operation of the bag leak detection system, including quality assurance procedures.
 - (v) Maintenance of the bag leak detection system, including a routine maintenance schedule and spare parts inventory list.
 - (vi) Recordkeeping (including record retention) of the bag leak detection system data. The owner or operator of an affected facility shall use a bag leak detection system equipped with a device to continuously record the output signal from the sensor.
- (3) The owner or operator of an affected facility shall conduct an initial

performance evaluation of each continuous monitoring system and bag leak detection system, as applicable, in accordance with the monitoring plan and to Section 1.4(c) of this text. For the purpose of this section, the provisions of Section 1.4(c) also apply to the bag leak detection system. The owner or operator shall conduct the initial performance evaluation of each continuous monitoring system within 60 days of installation of the monitoring system.

- (4) The owner or operator of an affected facility shall submit a monitoring plan specifying the ash handling system operating procedures that shall be followed to ensure that the fugitive emissions limit specified in Georgia Rule (www) are met.

- (5) The owner or operator of an affected facility may submit an application to the Director for approval of the alternate monitoring requirements to demonstrate compliance with the standards of Georgia Rule (www), subject to the provisions of (a)(5)(i) through (vi) of this paragraph.

- (i) The Director may not approve averaging periods other than those specified in this section, unless documentation is provided, using data or information, that the longer averaging period should ensure that the emissions do not exceed levels achieved over the duration of three performance test runs.

- (ii) If the application to use an alternate monitoring requirement is approved, the owner or operator of an affected facility shall continue to use the original monitoring requirement until approval is received to use another monitoring requirement.

- (iii) The owner or operator of an affected facility shall submit the application for approval of alternate monitoring requirements no later than the notification of performance test. The application should contain the information specified in paragraphs 2.130.3(a)(5)(iii)(A) through (C) of this section.

- (A) Data or information justifying the request, such as the technical or economic infeasibility, or the impracticality of using the required approach.

- (B) A description of the proposed alternative monitoring requirement, including the operating parameter to be monitored, the monitoring approach and technique, the averaging period for the limit, and how the limit is to be calculated.

- (C) Data or information documenting that the alternative monitoring requirement would provide equivalent or better assurance of compliance with the relevant emission standard.

- (iv) The Director should notify the owner or operator of an affected facility of the approval or denial of the application within 90 calendar days after receipt of the original request, or within 60 calendar days of the receipt of any supplementary information, whichever is later. The Director should not approve an alternate monitoring application unless it would provide equivalent or

better assurance of compliance with the relevant emission standard. Before disapproving any alternate monitoring application, the Director should provide the following:

- (A) Notice of the information and findings upon which the intended disapproval is based.
 - (B) Notice of opportunity for the owner or operator of an affected facility to present additional supporting information before final action is taken on the application. This notice should specify how much additional time is allowed for the owner or operator to provide additional supporting data.
- (v) The owner or operator of an affected facility is responsible for submitting any supporting information in a timely manner to enable the Director to consider the application prior to the performance test. Neither submittal of an application, nor the Director's failure to approve or disapprove the application relieves the owner or operator of the responsibility to comply with any provision of this section.
 - (vi) The Director may decide at any time, on a case-by-case basis, that additional or alternative operating limits, or alternative approaches to establishing operating limits, are necessary to demonstrate compliance with the emission standards of Georgia Rule (www).
- (6) The owner or operator of an affected facility shall submit the monitoring plans required in paragraphs 2.130.3(a)(1) and (2) of this section at least 60 days before the initial performance evaluation of the continuous monitoring system(s).
 - (7) The owner or operator of an affected facility shall submit the monitoring plan for the ash handling system, as required in (a)(4) of this paragraph, at least 60 days before the initial compliance test date.
 - (8) The owner or operator of an affected facility shall update and resubmit the monitoring plan if there are any changes or potential changes in the monitoring procedures or if there is a process change as defined in 40 CFR 60.5250*.
- (b) The owner or operator of an affected facility shall continuously monitor the operating parameters as specified in (b)(1) of this paragraph and shall meet the requirements of (b)(2) and (3) of this paragraph, according to the monitoring and calibration requirements in paragraphs 2.130.3(g) through (j) of this section. The owner or operator must confirm and re-establish the operating limits as specified in (b)(4) of this paragraph.
- (1) The owner or operator of an affected facility shall continuously monitor the operating parameters specified in paragraphs (b)(1)(i) and (ii) of this section using the continuous monitoring equipment and according to the procedures specified in paragraphs 2.130.3(g) through (j) of this section or established in paragraph 2.130.2(o) of this section. Compliance shall be determined using the data averaging period specified in Section 2.120.2(c) (except for the alarm time of the baghouse leak detection

system) unless a different averaging period is established under paragraph 2.130.2(o).

(i) The owner or operator of an affected facility shall demonstrate that the SSI unit meets the operating limits established according to paragraphs 2.130.2(g) through (o) and paragraph 2.130.3(b)(4) of this section for each applicable operating parameter.

(ii) The owner or operator of an affected facility shall demonstrate that the SSI unit meets the operating limit for bag leak detection systems as follows:

(A) For a bag leak detection system, the owner or operator shall calculate the alarm time as follows:

(1) If inspection of the fabric filter demonstrates that no correction action is required, no alarm time shall be counted.

(2) If correction action is required, each alarm time shall be counted as a minimum of 1 hour.

(3) If the owner or operator takes longer than 1 hour to initiate corrective action, each alarm time (*i.e.*, time that the alarm sounds) shall be counted as the actual amount of time taken to initiate corrective action.

(B) The maximum alarm time shall be equal to 5 percent of the operating time during a 6-month period, as specified in paragraph 2.130.2(f)(3) of this section.

(2) Operation above the established maximum, below the established minimum, or outside the allowable range of the operating limits specified in (b)(1) of this paragraph shall constitute a deviation from the operating limits established under this section, except during performance tests conducted to determine compliance with the emission and operating limits or to establish new operating limits. The owner or operator of an affected facility shall submit the deviation report specified in paragraph 2.130.4(b)(4) of this section for each instance that one of the operating limits established under this section was not met.

(3) The owner or operator of an affected facility shall submit the annual compliance report specified in paragraph 2.130.4(b)(3) of this section to demonstrate continuous compliance.

(4) The owner or operator of an affected facility shall confirm the operating limits according to (b)(4)(i) of this paragraph or re-establish operating limits according to (b)(4)(ii) of this paragraph. The operating limits shall be established to assure ongoing compliance with the emission limits. These requirements shall apply to the operating requirements in the fugitive emissions monitoring plan specified in paragraph 2.130.2(f)(4) of this section.

- (i) The operating limits shall be based on operating data recorded during any performance test required by paragraph 2.130.2(d) of this section or any performance evaluation required by 2.130.2(e)(4) this section.
 - (ii) The owner or operator of an affected facility may conduct a repeat performance test at any time to establish new values for the operating limits to apply from that point forward.
- (c)
 - (1) The owner or operator of an affected facility shall conduct an annual inspection of each air pollution control device used to comply with the emission standards of Georgia Rule (www), according to paragraph 2.130.3(e) of this section, no later than 12 months following the previous annual air pollution control device inspection.
 - (2) Within 10 operating days following an air pollution control device inspection, all necessary repairs shall be completed unless written approval from the Director has been obtained establishing a date whereby all necessary repairs of the affected SSI unit shall be completed.
- (d) The owner or operator of an affected facility shall meet the following requirements, as applicable, when a continuous monitoring system is used to demonstrate compliance with the emission limits of Georgia Rule (www). The option to utilize a continuous emissions monitoring system for emissions monitoring system for hydrogen chloride, dioxins/furans, cadmium, or lead becomes effective upon the date a final performance specification applicable to hydrogen chloride, dioxins/furans, cadmium, or lead is incorporated into this text. If a continuous emissions monitoring system is used in lieu of conducting annual performance tests, the owner or operator shall meet the requirements of (d)(1) through (d)(6) of this paragraph. If a continuous automated sampling system is used in lieu of conducting annual performance tests, the owner or operator shall meet the requirements of (d)(7) of this paragraph. The option to utilize a continuous automated sampling system for dioxins/furans shall be effective upon the incorporation of the final applicable performance specification in this text.
 - (1) The owner or operator of an affected facility shall notify the Director one month prior to beginning the use of the CEMS.
 - (2) The owner or operator of an affected facility shall notify the Director one month prior to ceasing the use of the CEMS, in which case the owner or operator shall conduct a performance test prior to ceasing operation of the system.
 - (3) The owner or operator of an affected facility shall install, operate, calibrate, and maintain an instrument for continuously measuring and recording the emissions to the atmosphere in accordance with the following:
 - (i) Section 1.4 of this text.
 - (ii) The following performance specifications of Appendix B of this text, as applicable:

(A) For particulate matter, Performance Specification 11 in Appendix B of this text.

(B) For hydrogen chloride, Performance Specification 15 in Appendix B of Part 60 of the Code of Federal Regulations*.

(C) For carbon monoxide, Performance Specification 4B in Appendix B of this text with spans appropriate to the applicable emissions limit.

(D) [Reserved]

(E) For mercury, Performance Specification 12A in Appendix B of this text.

(F) For nitrogen oxides, Performance Specification 2 in Appendix B of this text.

(G) For sulfur dioxide, Performance Specification 2 in Appendix B of this text.

(iii) For continuous emissions monitoring systems, the quality assurance procedures (e.g., quarterly accuracy determinations and daily calibration drift tests) of Appendix F of this text specified in (d)(3)(iii)(A) through (d)(3)(iii)(G) of this paragraph. For each pollutant, the span value of the continuous emissions monitoring system shall be two times the applicable emission limit, expressed as a concentration.

(A) For particulate matter, Procedure 2 in Appendix F of this text.

(B) For hydrogen chloride, Procedure 1 in Appendix F of this text except that the Relative Accuracy Test Audit requirements of Procedure 1 shall be replaced with the validation requirements and criteria of Sections 11.1.1 and 12.0 of Performance Specification 15 in Appendix B of Part 60 in the Code of Federal Regulations.

(C) For carbon monoxide, Procedure 1 in Appendix F of this

text.

(D) [Reserved]

(E) For mercury, Procedure 5 in Appendix F of this text.

(F) For nitrogen oxides, Procedure 1 in Appendix F of this text.

(G) For sulfur dioxide, Procedure 1 in Appendix F of this text.

(iv) If the monitoring system has a malfunction or out-of-control period, the owner or operator of an affected facility must

complete repairs and resume operation of the monitoring system as soon as possible.

- (4) During each relative accuracy test run of the continuous emission monitoring system using the performance specifications in paragraph (d)(3)(ii) of this section, emission data for each regulated pollutant and oxygen (or carbon dioxide as established in (d)(5) of this paragraph) shall be collected concurrently (or within a 30- to 60- minute period) by both the continuous emission monitoring system and the applicable test methods specified in (d)(4)(i) through (d)(4)(viii) of this paragraph. Relative accuracy testing shall be conducted at representative operating conditions while the SSI unit is charging sewage sludge.
- (i) For particulate matter, Method 5, Method 26A, or 29 of Appendix A of this text shall be used.
 - (ii) For hydrogen chloride, Method 26 or 26A of Appendix A of this text shall be used.
 - (iii) For carbon monoxide, Method 10, 10A or 10B of Appendix A of this text shall be used.
 - (iv) For dioxins/furans, Method 23 of Appendix A of this text shall be used.
 - (v) For mercury, cadmium, and lead, Method 29 of Appendix A of this text shall be used. Alternatively for mercury, Method 30B of Appendix A of this text may be used.
 - (vi) For nitrogen oxides, Method 7 or 7E of Appendix A of this text shall be used.
 - (vii) For sulfur dioxide, Method 6 or 6C of Appendix A of this text shall be used. For sources that have an actual inlet emissions less than 100 parts per millions dry volume, the relative accuracy criterion for the inlet of the sulfur dioxide continuous emissions monitoring system shall be no greater than 20 percent of the mean value of the method test data in terms of the emissions standard, or 5 parts per million dry volume absolute value of the mean difference between the method and the continuous emissions monitoring system, whichever is greater.
 - (viii) For oxygen (or carbon dioxide as established in paragraph (d)(5) of this section), Method 3A or 3B of Appendix A of this text shall be used.
- (5) The owner or operator of an affected facility may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. If carbon dioxide is selected for use in diluent corrections, the owner or operator shall establish the relationship between oxygen and carbon dioxide levels during the initial performance test according to the procedures in (d)(5)(i) through (iv) of this paragraph. This relationship may be re-established during subsequent performance tests.

- (i) The fuel factor equation in Method 3B of Appendix A of this text shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3A or 3B of Appendix A of this text shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.
 - (ii) Samples shall be taken for at least 30 minutes in each hour.
 - (iii) Each sample shall represent a 1-hour average.
 - (iv) A minimum of three runs shall be performed.
- (6) The owner or operator of an affected facility shall operate the continuous monitoring system and collect data with the continuous monitoring system as follows:
- (i) The owner or operator of an affected facility shall collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in (d)(6)(ii) of this paragraph, except for periods of monitoring system malfunctions that occur during periods specified in paragraph 2.130.3(a)(1)(vii)(A) of this section, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that the owner or operator of an affected facility does not collect data using the continuous emissions monitoring system shall constitute a deviation from the monitoring requirements and shall be reported in a deviation report.
 - (ii) The owner or operator of an affected facility shall collect continuous emissions monitoring system data in accordance with Section 1.4(e)(2) of this text.
 - (iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions, or required monitoring system quality assurance or control activities shall not be included in calculations used to report emissions or operating levels. Any such periods shall be reported in a deviation report.
 - (iv) Any data collected during periods when the monitoring system is out of control as specified in paragraph 2.130.3(a)(1)(vii)(A) of this section, repairs associated with periods when the monitoring system is out of control, or required monitoring system quality assurance or control activities conducted during out-of-control periods shall not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction as defined in 40 CFR 60.5250*, shall constitute a deviation from the monitoring requirements and shall be reported in a deviation report.
 - (v) The owner or operator of an affected facility shall use all the data collected during all periods except those periods specified in

6)(iii) and (iv) of this paragraph in assessing the operation of the control device and associated control system.

- (7) If the owner or operator of an affected facility elects to use a continuous automated sampling system instead of conducting annual performance testing, the owner or operator of an affected facility shall:
 - (i) Install, calibrate, maintain, and operate a continuous automated sampling system according to the site-specific monitoring plan developed in 40 CFR 60.58b(p)(1) through (p)(6), (p)(9), (p)(10), and (q)*.
 - (ii) Collect data according to 40 CFR 60.58b(p)(5)* and paragraph 2.130.3(d)(6) of this section.
- (e) The owner or operator of an affected facility shall conduct air pollution control device inspections that include, at a minimum, the following:
 - (1) Inspections of the air pollution control device(s) for proper operation.
 - (2) General observations that the equipment is maintained in good operating condition.
 - (3) Development of a site-specific monitoring plan in accordance with the requirements in paragraph 2.130.3(a). This requirement shall also apply if the owner or operator of an affected facility petitions the Director for alternative monitoring parameters under Section 1.4(i) of this text.
- (f) The use of the bypass stack at any time that sewage sludge is being charged to the SSI unit shall be an emissions standard deviation for all pollutants of Georgia Rule (www). The use of the bypass stack during a performance test shall invalidate the performance test.
- (g) The owner or operator shall install, operate, calibrate, and maintain the continuous parameter monitoring systems according to the requirements of (g)(1) and (2) of this paragraph.
 - (1) The following general requirements for flow, pressure, pH, and operating temperature measurement devices shall be met:
 - (i) The owner or operator of an affected facility shall collect data using the continuous monitoring system at all times the affected SSI unit is operating and at the intervals specified in (g)(1)(ii) of this paragraph, except for periods of monitoring system malfunctions that occur during periods specified defined in 2.130.3(a)(1)(vii)(A) of this section, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities (including, as applicable, calibration checks and required zero and span adjustments). Any such periods that data is not collected using the continuous monitoring system shall constitute a deviation from the monitoring requirements and shall be reported in a deviation report.

- (ii) The owner or operator of an affected facility shall collect continuous parameter monitoring system data in accordance with Section 1.4(e)(2) of this text.
 - (iii) Any data collected during monitoring system malfunctions, repairs associated with monitoring system malfunctions or required monitoring system quality assurance or control activities shall not be included in calculations used to report emissions or operating levels. Any such periods shall be reported in the annual deviation report.
 - (iv) Any data collected during periods when the monitoring system is out of control as specified in paragraph 2.130.3(a)(1)(vii)(A) of this section shall not be included in calculations used to report emissions or operating levels. Any such periods that do not coincide with a monitoring system malfunction as defined in as defined in 40 CFR 60.5250*, shall constitute a deviation from the monitoring requirements and shall be reported in a deviation report.
 - (v) The owner or operator of an affected facility shall use all the data collected during all periods except those periods specified in (g)(1)(iii) and (g)(1)(iv) of this paragraph in assessing the operation of the control device and associated control system.
 - (vi) The owner or operator of an affected facility shall record the results of each inspection, calibration, and validation check.
- (2) The owner or operator of an affected facility shall operate and maintain the continuous monitoring system according to the monitoring plan required under Section 2.130.3(a). Additionally:
- (i) For carrier gas glow rate monitors (for activated carbon injection), during the performance test conducted pursuant to Section 2.130.2, the owner or operator of an affected facility shall demonstrate that the system is maintained within ± 5 percent accuracy, according to the procedures in Appendix A of 40 CFR 75**.
 - (ii) For carrier gas pressure drop monitors (for activated carbon injection), during the performance test conducted pursuant to Section 2.130.2, the owner or operator of an affected facility shall demonstrate that the system is maintained within ± 5 percent accuracy.
- (h) The owner or operator of an affected facility shall operate and maintain the bag leak detection system in continuous operation according to the monitoring plan required under Section 2.130.3(a). Additionally:
- (1) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system shall be installed in each baghouse compartment or cell.
 - (2) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

- (3) The owner or operator of an affected facility shall initiate procedures to determine the cause of every alarm within 8 hours of the alarm, and shall alleviate the cause of the alarm within 24 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:
 - (i) Inspection of the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that could cause an increase in particulate matter emissions.
 - (ii) Sealing off defective bags or filter media.
 - (iii) Replacing defective bags or filter media or otherwise repairing the control device.
 - (iv) Sealing off a defective fabric filter compartment.
 - (v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system.
 - (vi) Shutting down the process producing the particulate matter emissions.
- (i) The owner or operator of an affected facility shall operate and maintain the continuous parameter monitoring systems specified in paragraphs 2.130.3(g) and (h) of this section in continuous operation according to the monitoring plan required under Section 2.130.3(a).
- (j) If the affected SSI unit is equipped with a bypass stack, the owner or operator of the affected facility shall install, calibrate (to manufacturer's specifications), maintain, and operate a device or method for measuring the use of the bypass stack including date, time, and duration.

2.130.4 Record keeping and Reporting requirements

- (a) The owner or operator of an affected facility shall maintain the items (as applicable) specified in paragraphs 2.130.4(a)(1) through (19) of this section for a period of at least 5 years. All records shall be available onsite in either paper copy or computer-readable format that can be printed upon request, unless an alternative format is approved by the Director.
 - (1) *Date.* Calendar date of each record.
 - (2) *Increments of progress.* Copies of the final control plan and any additional notifications, reported under paragraph 2.130.4(b)(1) of this section.
 - (3) *Operator Training.* Documentation of the operator training procedures and records specified in (3)(i) through (iv) of this paragraph. The owner or operator of an affected facility shall make available and readily accessible at the facility at all time for all SSI unit operators the documentation specified in (a)(3)(i) of this paragraph.
 - (i) Documentation of the following operator training procedures and

information:

- (A) Summary of the applicable standards under Georgia Rule (www).
 - (B) Procedures for receiving, handling, and feeding sewage sludge.
 - (C) Incinerator startup, shutdown, and malfunction preventative and corrective procedures.
 - (D) Procedures for maintaining proper combustion air supply levels.
 - (E) Procedures for operating the incinerator and associated air pollution control systems within the standards established under this section.
 - (F) Monitoring procedures for demonstrating compliance with the incinerator operating limits.
 - (G) Reporting and recordkeeping procedures.
 - (H) Procedures for handling ash.
 - (I) A list of the materials burned during the performance test, if in addition to the sewage sludge.
 - (J) For each qualified operator and other plant personnel who operate the unit according to the provisions of §60.5155(a)*, the phone and/or page number at which they can be reached during operating hours.
- (ii) Records showing the names of SSI unit operators and other plant personnel who may operate the unit according to the provisions of §60.5155(a)*, as follows:
- (A) Records showing the names of SSI unit operators and other plant personnel who have completed review of the information in paragraph 2.130.4(a)(3)(i) of this section as required by §60.5160*, including the date of the initial review and all subsequent annual reviews.
 - (B) Records showing the names of the SSI operators who have completed the operator training requirements under §60.5130*, met the criteria for qualification under §60.5140*, and maintained or renewed their qualification under §60.5145* or §60.5150*. Records must include documentation of training, including the dates of their initial qualification and all subsequent renewals of such qualifications.
 - (C) Records showing the periods when no qualified operators were accessible for more than 8 hours, but less than 2 weeks, as required in §60.5155(a)*.

- (D) Records showing the periods when no qualified operators were accessible for 2 weeks or more along with copies of reports submitted as required in §60.5155(b)*.
- (4) *Air pollution control device inspections.* Records of the results of initial and annual air pollution control device inspections conducted as specified in paragraphs 2.130.2(p) and 2.130.3(e) of this section, including any required maintenance and any repairs not completed within 10 days of an inspection or timeframe established by the Director.
- (5) *Performance test reports.*
 - (i) The results of the initial, annual, and any subsequent performance tests conducted to determine compliance with the emission limits and/or to establish operating limits, as applicable of Georgia Rule (www).
 - (ii) The owner or operator of an affected facility shall retain a copy of the complete performance test report, including calculations.
 - (iii) The owner or operator of an affected facility shall keep a record of the hourly dry sludge feed rate measured during the performance test runs as specified in paragraph 2.130.2(c)(2)(i) of this section.
 - (iv) The owner or operator of an affected facility shall keep any necessary records to demonstrate that the performance test was conducted under conditions representative of normal operations, including a record of the moisture content measured as required in paragraph 2.130.2(c)(2)(ii) of this section for each grab sample taken of the sewage sludge burned during the performance test.
- (6) *Continuous monitoring data.* Records of the following data, as applicable:
 - (i) For continuous emissions monitoring systems, all 1-hour average concentrations of particulate matter, hydrogen chloride, carbon monoxide, dioxins/furans total mass basis, mercury, nitrogen oxides, sulfur dioxide, cadmium, and lead emissions.
 - (ii) For continuous automated sampling systems, all average concentrations measured for mercury and dioxins/furans total mass basis at the frequencies specified in the monitoring plan.
 - (iii) For continuous parameter monitoring systems:
 - (A) All 1-hour average values recorded for the following operating parameters as applicable:
 - (1) Combustion chamber operating temperature (or afterburner temperature).
 - (2) If a wet scrubber is used to comply with the emission standards of Georgia Rule (www),

pressure drop across each wet scrubber system and liquid flow rate to each wet scrubber used to comply with the emission limit for particulate matter, cadmium, or lead, and scrubber liquid flow rate and scrubber pH for each wet scrubber used to comply with an emission limit for sulfur dioxide or hydrogen chloride.

- (3) If an electrostatic precipitator is used to comply with the emission standards of Georgia Rule (www), secondary voltage of the electrostatic precipitator collection plates and secondary amperage of the electrostatic precipitator collection plates, and effluent water flow rate at the outlet of the wet electrostatic precipitator.
 - (4) If activated carbon injection is used to comply with the emission standards of Georgia Rule (www), sorbent flow rate and carrier gas flow rate or pressure drop, as applicable.
 - (B) All daily values recorded for the feed rate and moisture content of the sewage sludge fed to the SSI, monitored and calculated as specified in paragraph 2.130.2(f)(6) of this section.
 - (C) If a fabric filter is used to comply with the emission standards of Georgia Rule (www), the date, time, and duration of each alarm and the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the correction action taken. The owner or operator of an affected facility shall also record the percent of operating time during each 6-month period that the alarm sounds, calculated as specified in paragraph 2.130.3(b) of this section.
 - (D) For other control devices for which operating limits shall be established under paragraph 2.130.2(o) of this section, the owner or operator of an affected facility shall maintain data collected for all operating parameters used to determine compliance with the operating limits, at the frequencies specified in the monitoring plan.
- (7) *Other records for continuous monitoring systems.* The owner or operator of an affected facility shall keep the following records, as applicable:
 - (i) Records of any notifications to the Director in paragraph 2.130.4(b)(6) of this section of starting or stopping use of a continuous monitoring system for determining compliance with any emission limit.
 - (ii) Records of any requests under paragraph 2.130.3(d)(5) of this section that compliance with the emission limits be determined using the carbon dioxide measurements corrected to an equivalent of 7 percent oxygen.

- (iii) If activated carbon injection is used to comply with the rule, the type of sorbent used and any changes in the type of sorbent used.
- (8) *Deviation Reports.* Records of any deviation reports submitted under paragraphs 2.130.4(b)(4) and (b)(5) of this section.
- (9) *Equipment specifications and operation and maintenance requirements.* Equipment specifications and related operation and maintenance requirements received from vendors for the incinerator, emission controls, and monitoring equipment.
- (10) *Inspections, calibrations, and validation checks of monitoring devices.* Records of inspections, calibration, and validation checks of any monitoring devices as required under Sections 2.130.2 and 2.130.3.
- (11) *Monitoring plan and performance evaluations for continuous monitoring systems.* Records of the monitoring plans required under paragraph 2.130.3(a) of this section and records of performance evaluations required under paragraph 2.130.3(a)(1)(iii).
- (12) *Less frequent testing.* If, consistent with Section 2.130.2(d), the owner or operator of an affected facility elects to conduct performance tests less frequently than annually, the owner or operator shall keep annual records that document that the emissions in the two previous consecutive years were at or below 75 percent of the applicable emission limit of Georgia Rule (www), and document that there have been no changes in source operations or air pollution control equipment that would cause emissions of the relevant pollutant to increase within the past two years.
- (13) *Use of the bypass stack.* Records indicating use of the bypass stack, including dates, time, and durations as required under paragraph 2.130.3(f) of this section.
- (14) If a malfunction occurs, the owner or operator of an affected facility shall keep a record of the information submitted in the annual report in paragraph 2.130.4(b)(3)(xvi) of this section.
- (b) The owner or operator of an affected facility shall submit the reports specified in paragraphs 2.130.4(b)(1) through (b)(9) of this section.
 - (1) *Increments of progress report.* If the owner or operator of an affected facility plans to achieve compliance more than 1 year following the effective date of Georgia Rule (www), the following reports shall be submitted, as applicable:
 - (i) A final control plan as specified in §§60.5085(a) and 60.5110*.
 - (ii) Notification of achievement of increments of progress shall be submitted no later than 10 business days after the compliance date for the increment as specified in §§60.5095 and 60.5100*.
 - (iii) If the owner or operator of an affected facility fails to meet an increment of progress, a notification to the Director postmarked

10 business days after the date for that increment shall be submitted as specified in §§60.5095 and 60.5100*.

- (iv) If an owner or operator of an affected facility plans to close the SSI unit rather than comply with the requirements of Georgia Rule (www) and this section, a closure notification shall be submitted as specified in §60.5125*.
- (2) *Initial compliance report.* The owner or operator of an affected facility shall submit the following information no later than 60 days following the initial performance test.
- (i) Company name, physical address, and mailing address.
 - (ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (iii) Date of the report.
 - (iv) The compliance test report for the initial performance test results obtained by using the test methods specified in paragraph 2.130.2(c) of this section.
 - (v) If an initial performance evaluation of a continuous monitoring system was conducted, the results of that initial performance evaluation.
 - (vi) The values for the site-specific operating limits established pursuant to Section 2.130.2 and the calculations and methods, as applicable, used to establish each operating limit.
 - (vii) If a fabric filter is used to comply with the emission limits of Georgia Rule (www), documentation that a bag leak detection system has been installed and is being operated, calibrated, and maintained as required by paragraph 2.130.2(f) of this section.
 - (viii) The results of the initial air pollution control device inspection required in paragraphs 2.130.3(c) and (d) of this section, including a description of all repairs.
 - (ix) The site-specific monitoring plan required under paragraph 2.130.3(a) of this section, at least 60 days before the initial performance evaluation of the continuous monitoring system
 - (x) The site-specific monitoring plan for the ash handling system required under Section 2.130.3, at least 60 days prior to the initial performance test to demonstrate compliance with the fugitive ash emission limit.
- (3) *Annual compliance report.* The owner or operator of an affected facility shall submit an annual compliance report that includes the items listed in (b)(3)(i) through (b)(3)(xvi) of this paragraph for the reporting period specified in b)(3)(iii) of this paragraph. The first annual compliance report shall be submitted no later than 12 months following the submission of the initial compliance report in paragraph 2.130.4(b)(2) of

this section. The subsequent annual compliance reports shall be submitted no more than 12 months following the previous annual compliance report. (The owner or operator of an affected facility may submit these reports (or additional compliance information) on the schedule specified in the title V operating permit required in Georgia Rule (www).)

- (i) Company name, physical address, and mailing address.
- (ii) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (iii) Date of the report and beginning and ending dates of the reporting period.
- (iv) If a performance test was conducted during the reporting period, the results of that performance test.
 - (1) If operating limits were established during the performance test, include the value for each operating limit and, as applicable, the method used to establish each operating limit, including calculations.
 - (2) If activated carbon was used during the performance test, include the type of activated carbon used.
- (v) For each pollutant and operating parameter recorded using a continuous monitoring system, the highest average value and lowest average value recorded during the reporting period, as follows:
 - (A) For continuous emission monitoring systems and continuous automated sampling system, report the highest and lowest 24-hour average emission value.
 - (B) For continuous parameter monitoring systems, report the following values:
 - (1) For all operating parameters except scrubber liquid pH, the highest and lowest 12-hour average values.
 - (2) For scrubber liquid pH, the highest and lowest 3-hour average values.
- (vi) If there are no deviations during the reporting period from any emission limit, emission standard, or operating limit that applies to the affected facility, a statement that there were no deviations from the emission limits, emission standard, or operating limits.
- (vii) Information for bag leak detection systems recorded under paragraph 2.130.4(a)(6)(iii)(C) of this section.

- (viii) If a performance evaluation of a continuous monitoring system was conducted, the results of that performance evaluation. If new operating limits were established during the performance evaluation, include the calculations for establishing those operating limits.
- (ix) If the owner or operator of an affected facility elects to conduct performance tests less frequently as allowed in Section 2.130.2(d) and did not conduct a performance test during the reporting period, the dates of the last two performance test shall be included along with a comparison of the emission levels achieved during the last two performance tests to the 75 percent emission limit threshold specified in paragraph 2.130.2(d)(4) of this section and a statement as to whether there have been any process changes and whether the process change resulted in an increase in emissions.
- (x) Documentation of periods when all qualified sewage sludge incineration unit operators were unavailable for more than 8 hours, but less than 2 weeks.
- (xi) Results of annual air pollution control device inspections recorded under paragraph 2.130.4(a)(4) of this section for the reporting period, including a description of the repairs.
- (xii) If there were no periods during the reporting period when the continuous monitoring systems had a malfunction, a statement that there were no periods during which the continuous monitoring systems had a malfunction.
- (xiii) If there were no periods during the reporting period when a continuous monitoring system was out of control, a statement that there were no periods during which the continuous monitoring system was out of control.
- (xiv) If there were no operator training deviations, a statement that there were no such deviations during the reporting period.
- (xv) If no revisions to the site-specific monitoring plan were made during the reporting period, a statement that there were not any revisions made to the site-specific monitoring plan during the reporting period. If revisions were made to the site-specific monitoring plan during the reporting period, a copy of the revised plan.
- (xvi) If a malfunction occurred during the reporting period, the compliance report shall include the number, duration, and a brief description for each type of malfunction that occurred during the reporting period and that caused or may have caused any applicable emission limit to be exceeded. The report shall also include a description of actions taken by the owner or operator of an affected facility during a malfunction to an affected source to minimize emissions in accordance with Section 1.3(d) of this text, including actions taken to correct a malfunction.

(4) *Deviation reports.*

- (i) A deviation report shall be submitted if:
 - (A) Any recorded operating parameter level, based on the averaging time specified in Table 2 of this section, is above the maximum operating limit or below the minimum operating limit established under this section.
 - (B) The bag leak detection system alarm sounds for more than 5 percent of the operating time for the 6-month reporting period.
 - (C) Any recorded 24-hour block average emissions level is above the emission limit, if a continuous monitoring system is used to comply with the emission limit.
 - (D) There are visible emissions of combustion ash from an ash conveying system for more than 5 percent of the hourly observation period.
 - (E) A performance test was conducted that deviated from any emission limit in Georgia Rule (www).
 - (F) A continuous monitoring system was out of control.
 - (G) A malfunction (e.g., continuous monitoring system malfunction) occurred that caused or may have caused any applicable emission limit to be exceeded.
- (ii) The deviation report shall be submitted by August 1 of that year for data collected during the first half of the calendar year (January 1 to June 30), by February 1 of the following year for the data collected during the second half of the calendar year (July 1 to December 31), unless the permit specifies a different reporting frequency.
- (iii) For each deviation where a continuous monitoring system was used to comply with the associated emission limit or operating limit, report the items described in paragraphs 2.130.4(b)(4)(iii)(A) through (b)(4)(iii)(H) of this section.
 - (A) Company name, physical address, and mailing address,
 - (B) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (C) The calendar dates and times the affected unit deviated from the emission limits, emission standards, or operating limits requirements.
 - (D) The averaged and recorded data for those dates.
 - (E) Duration and cause of each deviation from the following:
 - (1) Emission limits, emission standards, operating

limits, and the corrective actions taken.

(2) Bypass events and correction actions taken.

(F) Dates, times, and causes for monitor downtime incidents.

(G) A copy of the operating parameter monitoring data during each deviation and any test report that documents the emission levels.

(H) If there were periods during which the continuous monitoring system malfunctioned or was out of control, the following information for each deviation from an emission limits or operating limit shall be included:

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each continuous monitoring system was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each continuous monitoring system was out of control, including start and end dates and hours and descriptions of corrective actions taken.

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction, during a period when the system was out of control, or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during the reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of continuous monitoring system downtime as a percent of the total operating time of the SSI unit at which the continuous monitoring system downtime occurred during the reporting period.

(8) An identification of each parameter and pollutant that was monitored at the SSI unit.

(9) A brief description of the SSI unit.

- (10) A brief description of the continuous monitoring system.
 - (11) A description of any changes in continuous monitoring system, processes, or controls since the last reporting period.
- (iv) For each deviation where a continuous monitoring system is not used to comply with the associated emission limit or operating limit, report the following items:
 - (A) Company name, physical address, and mailing address,
 - (B) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
 - (C) The total operating time of each affected source during the reporting period.
 - (D) The calendar dates and times the unit deviated from the emission limits, emission standards, or operating limits requirements.
 - (E) The averaged and recorded data for those dates.
 - (F) Duration and cause of each deviation from the following:
 - (1) Emission limits, emission standards, operating limits, and the corrective actions taken.
 - (2) Bypass events and the corrective actions taken.
 - (G) A copy of any performance test report that showed a deviation from the emission limits or standards.
 - (H) A brief description of any malfunction reported in paragraph 2.130.4(b)(4)(i)(G) of this section, including a description of actions taken to minimize emissions in accordance with Section 1.3(d) of this text and to correct the malfunction.
- (5) *Qualified operator deviation.*
 - (i) If all qualified operators are not accessible for 2 weeks or more, the owner or operator of an affected facility shall take the two actions in (b)(5)(i)(A) and (b)(5)(i)(B) of this paragraph.
 - (A) Submit a notification of the deviation within 10 days that includes the three items in (b)(5)(i)(A)(1) through (b)(5)(i)(A)(3) of this paragraph.
 - (1) A statement of what caused the deviation.
 - (2) A description of actions taken to ensure that a qualified operator is accessible.

- (3) The date when the owner or operator of an affected facility anticipates that a qualified operator will be available.
- (B) Submit a status report to the Director every 4 weeks that includes the three items in (b)(5)(i)(B)(1) through (b)(5)(i)(B)(3) of this paragraph.
 - (1) A description of actions taken to ensure that a qualified operator is accessible.
 - (2) The date when the owner or operator of an affected facility anticipates that a qualified operator will be available.
 - (3) Request for approval from the Director to continue operation of the SSI unit.
- (ii) If the SSI unit was shut down by the Director, under the provisions of §60.5155(b)(2)(i)*, due to a failure to provide an accessible qualified operator, the owner or operator of an affected facility shall notify the Director within five days of meeting §60.5155(b)(2)(ii)* that the owner or operator is resuming operation.
- (6) *Other notifications and reports required.* The owner or operator of an affected facility shall submit other notifications as provided by Section 1.5 of this text and as follows:
 - (i) The owner or operator of an affected facility shall notify the Director one month prior to starting or stopping use of a continuous monitoring system for determining compliance with any emission limit.
 - (ii) The owner or operator of an affected facility shall notify the Director at least 30 days prior to any performance test conducted to comply with the provisions of this section, to afford the Director the opportunity to have an observer present.
 - (iii) As specified in paragraph 2.130.2(c)(17) of this text, the owner or operator of an affected facility shall notify the Director at least 7 days prior to the date of a rescheduled performance test for which notification was previously made in paragraph 2.130.4(b)(6)(ii) of this section.
- (7) *Report submission form.* Submit initial, annual, and deviation reports, postmarked on or before the submittal due dates.
- (c) The owner or operator of an affected facility shall apply for and obtain a Title V operating permit for the existing SSI unit unless the relevant requirements in Georgia Rule (www) are met.
- (d) The owner or operator of an affected facility shall submit an initial compliance report as specified in paragraph 2.130.4(b)(2) of this section.

- (e) The owner or operator of an affected facility shall submit an annual compliance report as specified in paragraph 2.130.4(b)(3) of this section. The owner or operator shall submit a deviation report as specified in 2.130.4(b)(4) of this section for each instance that the emission limits of Georgia Rule (www) were not met.
- (f) After any initial requests in 2.130.2 for alternative monitoring, the owner or operator of an affected facility may subsequently petition the Director for alternative monitoring parameters as specified in Section 1.4(i) of this text and paragraph 2.130.3.(a)(5) of this section.

TABLE 2. OPERATING PARAMETERS FOR SEWAGE SLUDGE INCINERATION UNITS^a

| For these operating parameters | the following operating limits shall be established | And monitored at these minimum frequencies | | |
|---|--|--|-----------------------------|--------------------------------------|
| | | Data measurement | Data recording ^b | Data averaging period for compliance |
| All Sewage Sludge Incineration Units | | | | |
| Combustion chamber operating temperature (not required if afterburner temperature is monitored) | Minimum combustion chamber operating temperature or afterburner temperature | Continuous | Every 15 minutes | 12-hour block |
| Fugitive emissions from ash handling | Site-specific operating requirements | Not applicable | Not applicable | Not applicable |
| Scrubber | | | | |
| Pressure drop across each wet scrubber.\ | Minimum pressure drop | Continuous | Every 15 minutes | 12-hour block |
| Scrubber liquid flow rate | Minimum flow rate | Continuous | Every 15 minutes | 12-hour block |
| Scrubber liquid pH | Minimum pH | Continuous | Every 15 minutes | 3-hour block |
| Fabric Filter | | | | |
| Alarm time of the bag leak detection system alarm | Maximum alarm time of the bag leak detection system alarm (this operating limit is provided in paragraph 2.130.2(f) of this section and is not established on a site specific basis. | | | |
| Electrostatic Precipitator | | | | |
| Secondary voltage of the electrostatic precipitator collection plates | Minimum power input to the electrostatic precipitator collection plates | Continuous | Hourly | 12-hour block |
| Secondary amperage of the electrostatic precipitator collection plates | | | | |
| Effluent water flow rate at the outlet of the electrostatic precipitator | Minimum effluent water flow rate at the outlet of the electrostatic precipitator | Hourly | Hourly | 12-hour block |
| Activated Carbon Injection | | | | |
| Mercury sorbent injection rate | Minimum mercury sorbent injection rate | Hourly | Hourly | 12-hour block |
| Dioxin/furan sorbent injection rate | Minimum dioxin/furan sorbent injection rate | | | |
| Carrier gas flow rate or carrier gas pressure drop | Minimum carrier gas flow rate or minimum carrier gas pressure drop | Continuous | Every 15 minutes | 12-hour block |
| Afterburner | | | | |
| Temperature of the afterburner combustion chamber | Minimum temperature of the afterburner combustion chamber | Continuous | Every 15 minutes | 12-hour block |

^a As specified in paragraph 2.130.2(e) of this text, a continuous emissions monitoring system or a continuous automated sampling system may be used in lieu of establishing certain operating limits.

^b The recording time shall be the minimum frequency that the continuous monitor or other measuring device initially records data. For all data recorded every 15 minutes, the owner or operator of an affected facility shall calculate hourly arithmetic averages. For all parameters, hourly averages shall be used to calculate the 12-hour or 3-hour block average specified in this table for demonstrating compliance. Records of the 1-hour averages shall be maintained.

* Code of Federal Regulations, Title 40, Part 60

** Code of Federal Regulations, Title 40, Part 75

Appendix C

**Official Code of Georgia Annotated,
Title 12, Chapter 9, Article 1:**

**Georgia Air Quality Act
(Sections 1 – 6)**

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TITLE 12. CONSERVATION AND NATURAL RESOURCES
CHAPTER 9. PREVENTION AND CONTROL OF AIR POLLUTION
ARTICLE 1. AIR QUALITY

O.C.G.A. § 12-9-1 (2012)

§ 12-9-1. Short title

This article shall be known and may be cited as "The Georgia Air Quality Act."

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§ 12-9-2. Declaration of public policy

It is declared to be the public policy of the State of Georgia to preserve, protect, and improve air quality and to control emissions to prevent the significant deterioration of air quality and to attain and maintain ambient air quality standards so as to safeguard the public health, safety, and welfare consistent with providing for maximum employment and full industrial development of the state.

HISTORY: (Code 1933, 88-901, enacted by Ga. L. 1967, p. 581, § 1; Ga. L. 1978, p. 275, § 1; Ga. L. 1992, p. 918, § 2; Ga. L. 1992, p. 2886, § 1.

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O.C.G.A. § 12-9-3 (2012)

§ 12-9-3. Definitions

(a) As used in this article, the term:

(1) "Administrator" means the administrator of the United States Environmental Protection Agency.

(2) "Air-cleaning device" means any method, process, or equipment which removes, reduces, or renders less noxious air contaminants discharged into the atmosphere.

(3) "Air contaminant" means solid or liquid particulate matter, dust, fumes, gas, mist, smoke, or vapor or any matter or substance either physical, chemical, biological, radioactive, including without limitation source material, special nuclear material, and by-product material, or any combination of any of the above.

(4) "Air pollution" means the presence in the outdoor atmosphere of one or more air contaminants.

(5) "Ambient air" means that portion of the atmosphere external to facilities to which the general public has access.

(6) "Area of the state" means any city or county or portion thereof or other substantial geographical area of the state as may be designated by the division.

(7) "Board" means the Board of Natural Resources of the State of Georgia.

(8) "Compliance plan" means a plan which outlines the methods, procedures, or other means by which the owner, operator, or applicant intends to achieve or maintain compliance with the requirements of this article or the rules and regulations promulgated pursuant to this article.

(9) "Construction" means any fabrication, erection, or installation and includes any modification as defined in paragraph (22) of this Code section.

(10) "Control measure" means any equipment, device, process, procedure, material, or method used to reduce emissions from a source in such a manner that the emission reduction can be verified by the director.

(11) "Director" means the director of the Environmental Protection Division of the Department of Natural Resources of the State of Georgia or his designee.

(12) "Division" means the Environmental Protection Division of the Department of Natural Resources of the State of Georgia.

(13) "Effects on welfare" includes, but is not limited to, effects on soils, water, crops, vegetation, man-made materials, animals, wildlife, weather, visibility, and climate, damage to and deterioration of property, public safety, and hazards to transportation, as well as effects on economic values or development and on personal comfort and well-being.

(14) "Emission" or "emitting" means any discharging, giving off, sending forth, placing, dispensing, scattering, issuing, circulating, releasing, or any other emanation of any air contaminant or contaminants into the atmosphere.

(15) "Emission limitation" means a requirement established which limits the quantity, rate, type, or concentration of emissions of air contaminants, including all means of emission limitation, supplemental or intermittent means of emission limitation, and any requirement relating to the equipment or operation or maintenance of a source to assure emission reduction.

(16) "Emission offset" means a requirement providing for a proportional decrease in the emissions of a quantity or type of air contaminant from a source, facility, or area of the state in order to compensate or counteract the effects of an emission increase from such source, facility, or area of the state.

(17) "Facility" means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit any air contaminants.

(18) "Federal act" means 42 U.S.C. Section 7401, et seq., as amended.

(19) "Indirect source" means a source or facility which attracts or tends to attract activity that results in emission of any air pollutant for which there is an ambient air standard.

(20) "Manager" means the person appointed, employed, or delegated to the position of small business stationary source technical and environmental compliance office manager.

(21) "Means of emission limitation" means a system of continuous emission reduction, including the use of specific technology or fuels with specified pollution characteristics.

(22) "Modification" means any change in or alteration of fuels, processes, operation, or equipment, including any chemical changes in processes or fuels, which affects the amount or character of any air pollutant emitted or which results in the emission of any air pollutant not previously emitted. No source shall, by reason of a change which decreases emissions, become subject to the new source performance standards of 42 U.S.C. Section 7411, unless required by the federal act. This definition does not apply where the word "modification" is used to refer to action by the director, division, or Board of Natural Resources in modifying or changing rules, regulations, orders, or permits. In that context the word has its ordinary meaning.

(23) "Person" means any individual, corporation, partnership, association, state, municipality, or political subdivision of a state, and any agency, department, or instrumentality of the United States government, or any other entity, and any officer, agent, or employee of any of the above.

(24) "Schedule and timetable of compliance" means a schedule of remedial measures including an enforceable sequence of actions or operations leading to compliance with an emission limitation, other limitation, prohibition, or standard.

(25) "Small business advisory panel" means the small business stationary source technical and environmental compliance advisory panel created by Code Section 12-9-25.

(26) "Small business stationary source or facility" means an entity that:

- (A) Is owned or operated by a person employing 100 or fewer individuals;
- (B) Is a small business under the federal Small Business Act;
- (C) Does not emit 50 tons or more per year of any regulated pollutant; and
- (D) Emits less than 75 tons per year of all regulated pollutants and does not qualify as a major stationary source.

(27) "Source" means any property, building, structure, location, equipment, or installation at, from, or by reason of which emissions of air contaminants are or may reasonably be expected to be emitted into the atmosphere. Such term includes both real and personal property, stationary and mobile sources, and direct and indirect sources and both public or private property.

(28) "Standard of performance" means a requirement of continuous emission reduction, including any requirement relating to the equipment, operation, or maintenance of a source to assure continuous emission reduction. A standard of performance for any fossil fuel fired stationary source subject to 42 U.S.C. Section 7411(b) must also produce and result in a percentage reduction in the emissions from such category of sources from the emissions which would have resulted from the use of fuels which are not subject to treatment prior to combustion, as required by 42 U.S.C. Section 7411(a)(1).

(29) "Stationary source" means any source or facility emitting, either directly or indirectly, from a fixed location.

(30) "Supplemental or intermittent means of emission limitation" means all other means of emission limitation other than systems of continuous emission reduction and includes all dispersion dependent techniques.

(31) "Title V permit" means a permit issued by the director which is subject to the permitting requirements and procedures for such permits pursuant to this article and the regulations promulgated pursuant to this article and in accordance with the federal act, 42 U.S.C. Section 7661, et seq., as amended, and the rules and regulations promulgated pursuant thereto.

(b) The following terms shall have the same meaning as provided for such terms in the federal act:

- (1) Hazardous air pollutants;
- (2) Major stationary source;
- (3) Mobile source; and
- (4) Implementing authority.

HISTORY: Code 1933, 88-902, enacted by Ga. L. 1967, p. 581, § 1; Ga. L. 1978, p. 275, § 4; Code 1981, § 12-9-3 enacted by Ga. L. 1992, p. 918, § 2; Ga. L. 1992, p. 2886, § 1; Ga. L. 2001, p. 4, § 12.

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O.C.G.A. § 12-9-4 (2012)

§ 12-9-4. Designation of division as agency to administer article

The division is designated as the state agency to administer this article consistent with the policy stated in Code Section 12-9-2.

HISTORY: Code 1981, § 12-9-4, enacted by Ga. L. 1992, p. 918, § 2; Ga. L. 1992, p. 2886, § 1.

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O.C.G.A. § 12-9-5 (2012)

§ 12-9-5. Powers and duties of Board of Natural Resources as to air quality generally

(a) Any hearing officer appointed by the Board of Natural Resources, and all members of five-member committees of the Board of Natural Resources, shall, and at least a majority of members of the entire Board of Natural Resources shall, represent the public interest and shall not derive any significant portion of their income from persons subject to permits or enforcement orders under this article. All potential conflicts of interest shall be adequately disclosed.

(b) In the performance of its duties, the Board of Natural Resources shall have and may exercise the power to:

(1) Adopt, promulgate, revise, modify, amend, and repeal rules and regulations necessary to abate or control air pollution, or necessary to implement any of the provisions of this article or requirements of the federal act imposed on the state as an implementing authority, consistent with the declaration of public policy. Such requirements may be for the state as a whole or may vary from area to area, as may be appropriate to facilitate accomplishment of the policy of this article;

(2) Establish ambient air quality standards for the state, including schedules and timetables for the state to achieve such ambient air quality standards, provided that they are in all cases not less stringent than provided by the federal act;

(3) Establish such standards of performance, emission limitations, emission control standards, and emission offsets for sources or facilities as are necessary to prevent, control, or abate air pollution, to attain and maintain ambient air quality standards, to protect the public health and welfare, and to fulfill the policy of this article, provided that such standards or limitations are no less stringent than the federal act;

(4) Establish contingency provisions, alternative methods, and control measures sufficient to comply with the federal act which will be implemented should the state fail to attain or maintain an ambient air quality standard in the state or in any area of the state in accordance with this article and the rules and regulations promulgated pursuant to this article;

(5) Establish emission reduction measures which are appropriate, necessary, or beneficial in meeting the provisions of this article, including, but not limited to, economic incentives, fees,

marketable permits, emission allowances, and auctions of emission rights;

(6) Require the owner or operator of any stationary source or facility to establish and maintain such records; provide such information or make such reports; install, use, and maintain such emission or process monitoring equipment or methods, continuous or otherwise; and sample such emissions, continuous or not, in accordance with such methods or procedures, at such locations or intervals as reasonably may be required to implement this article, and make such records, reports, information, or monitoring results available to the director or administrator upon request, provided that no requirement under this paragraph shall be any less stringent than the federal act;

(7) Require the use of air-cleaning devices, means of emission limitation, whether continuous, supplemental, or intermittent, or control measures and standards of performance so as to achieve and maintain compliance with the provisions of this article and the federal act;

(8) Prevent the significant deterioration of the air quality by establishing air quality standards or air quality increments limiting the maximum allowable amounts of air pollutants or air contaminants which a source or facility is allowed to emit; provided, however, that such limits are sufficient to comply with the federal act;

(9) Establish standards of performance, emission limitations, and emission control standards and control measures for mobile sources of air pollution and nonroad engines, provided that no requirement under this paragraph shall be less stringent than those contained in the federal act;

(10) Establish, revise, or modify emission limitations, emission control standards, or control measures for stationary sources or facilities in areas of the state where such sources or facilities significantly contribute to nonattainment of an ambient air quality standard or significantly contribute to a significant deterioration of air quality in the state, an area of the state, or another state; provided, however, that no requirement under this paragraph shall be less stringent than the requirements for such source or facility under this article and the rules and regulations promulgated pursuant to this article;

(11) Establish, revise, modify, and amend emission limitations, emission control standards, or standards of performance limiting the total quantity of air contaminants or emissions which may be emitted by a source, facility, or area of the state;

(12) Establish a program for prevention and mitigation of accidental releases of hazardous air contaminants or air pollutants into the ambient air or within a facility; establish, revise, amend, and modify rules and regulations for program implementation; and require reasonable precautionary and response measures to safeguard public health and public safety including, but not limited to, monitoring hazardous or potentially hazardous air contaminants and air pollutants, record keeping, inspection, control measures, safety procedures, emergency response procedures, training, prevention planning, education, emission control standards, emission limitations, and other necessary safety measures; and the board may require any source or facility subject to this paragraph to obtain a Title V permit;

(13) Establish training and educational programs to ensure the proper operation and utilization of emission control equipment, safety procedures, emission control alternatives, and the dissemination of air quality information to the public;

(14) Establish standards for the construction of new stationary sources or facilities or modification of an existing source or facility in areas where the national ambient air standards are not met or in other areas contributing to the air pollution of such areas only after imposing requirements and appropriate emission offsets or reductions no less stringent than the requirements of the federal act;


(15) Establish requirements for preconstruction or premodification review procedures prior to the construction of any new stationary source or facility or modification of any existing

stationary source or facility sufficient to allow the director to make determinations that the proposed construction or modification will not cause or contribute to a failure to attain or maintain any ambient air quality standard, a significant deterioration of air quality, or a violation of any applicable emission limitation or standard of performance; and to require that prior to commencing construction or modification, any person proposing such construction or modification shall submit required information to the director. Such preconstruction and premodification review requirements shall be no less stringent than and shall require that no proposed source or facility may be permitted unless such source or facility meets all the requirements for review and for obtaining a permit prescribed in this article and in accordance with the federal act;

(16) Establish a program to reduce the adverse effects of acid deposition through the reduction of annual emissions of sulfur dioxide and nitrogen oxides within the state sufficient to comply with the requirements of 42 U.S.C. Section 7651, et seq., of the federal act; and

(17) Establish satisfactory processes of consultation and cooperation with local governments or other designated organizations of elected officials or federal agencies for purposes of planning, implementing, and determining requirements under this article to the extent required by the federal act.

HISTORY: Code 1933, 88-903, enacted by Ga. L. 1967, p. 581, § 1; Ga. L. 1971, p. 184, § 1; Ga. L. 1972, p. 994, § 1; Ga. L. 1972, p. 1015, § 1529; Ga. L. 1973, p. 1285, § 1; Ga. L. 1978, p. 275, § 5; Ga. L. 1982, p. 3, § 12; Ga. L. 1992, p. 6, § 12; Ga. L. 1992, p. 918, § 2; Ga. L. 1992, p. 2886, § 1.

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O.C.G.A. § 12-9-6 (2012)

§ 12-9-6. Powers and duties of director as to air quality generally

(a) The director shall represent the public interest and shall not derive a significant portion of his income from persons subject to rules, regulations, permits, or orders under this article. Any potential conflict of interest shall be adequately disclosed.

(b) The director shall have and may exercise the following powers and duties:

(1) To exercise general supervision over the administration and enforcement of this article and all rules, regulations, and orders promulgated under this article;

(2) To encourage, participate in, or conduct such studies, reviews, investigations, research, emission inventories, and demonstrations relating to air quality or sources of air pollution in this state as he deems advisable and necessary or as may be required by the federal act and to provide any data or information obtained from such activities to the administrator;

(3) To issue permits contemplated by this article, stipulating in each permit the conditions or limitations under which such permit is issued, and to deny, revoke, modify, or amend permits;

(4) To establish, implement, revise, and amend permit application criteria, forms, procedures, and requirements consistent with this article;

(5) To establish expedited procedures to respond to requests from small business stationary sources for changes in any work practice or technical method of compliance or schedule of milestones for implementing such work practice or method of compliance preceding any applicable compliance date, based on the technological and financial capability of any such small business stationary source or facility; provided, however, that no such change shall be granted unless it is in compliance with the applicable requirements;

(6) To advise, consult, cooperate, and contract on air quality matters with persons for purposes of carrying out the powers and duties conferred upon the director pursuant to this article; provided, however, that when negotiating and entering into agreements with the governments of other states or the United States and their several agencies, subdivisions, or designated organizations of elected officials the director shall first obtain the approval of the Governor;

(7) To conduct such public hearings as he deems necessary for the proper administration of this article;

(8) To collect and disseminate information and to provide for public notification in matters relating to air quality;

(9) To collect fees, assessments, penalties, or other payments provided for by this article;

(10) To issue orders as may be necessary to enforce compliance with this article and all rules and regulations promulgated pursuant to this article;

(11) To institute, in the name of the division, proceedings of mandamus, injunction, or other proper administrative, civil, or criminal proceedings to enforce the provisions of this article;

(12) To exercise all incidental powers necessary to carry out the purposes of this article;


(13) To prepare, develop, amend, modify, submit, and enforce a comprehensive plan or plans sufficient to comply with the federal act including emission control and limitation requirements, standards of performance, preconstruction review, and other requirements for the prevention, abatement, and control of air pollution in this state, for the prevention of significant deterioration of air quality, for protection against hazardous air pollutants, and for the achievement and maintenance of ambient air quality standards;

(14) To encourage voluntary cooperation by persons and affected groups to achieve the purposes of this article; and

(15) To receive, accept, hold, use, and administer on behalf of the state and for purposes provided in this article gifts, grants, donations, devises, and bequests of real, personal, and mixed property of every kind and description.

(c) The powers and duties described in this Code section may be exercised and performed by the director through such duly authorized agents and employees as he deems necessary and proper.

HISTORY: Code 1933, 88-904, 88-905, enacted by Ga. L. 1967, p. 581, § 1; Ga. L. 1978, p. 275, § 6; Ga. L. 1982, p. 3, § 12; Ga. L. 1992, p. 918, § 2; Ga. L. 1992, p. 2886, § 1.

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