
**Submittal for Georgia's State Plan for
Implementation of the Emission Guidelines and
Compliance Times for Existing
Hospital/Medical/Infectious Waste Incinerators**



Air Protection Branch

December 19, 2018

Executive Summary

This document is Georgia's State Plan for the implementation of 40 CFR part 60 subpart Ce, EPA's *Emission Guidelines and Compliance Times for Existing Hospital/Medical/Infectious Waste Incinerator Units*. An existing hospital, medical, and/or infectious waste incinerator (HMIWI) is defined by subpart Ce as a unit that incinerates waste generated at a hospital, including any infectious agents. This plan covers hospital/medical/infectious waste incinerator (HMIWI) units that fall under the following categories:

- For which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998.
- For which construction was commenced after June 20, 1996, but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010.

The state plan is required by 40 CFR part 60 subpart B 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 as required by 60.25(e) and including the provisions of 60.25(f)(1) – 60.25(f)(6)
- 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
- Waste Management Plan

To meet EPA's requirement for subpart Ce, Georgia has promulgated State Rule 391-3-1-.02(2)(iii) for the regulation of existing HMIWI units. The State Rule, in conjunction with the State Plan, ensures that existing HMIWI units meet performance requirements that are at least as stringent as the HMIWI emission guidelines and compliance times.

There is one operable existing HMIWI unit in the State of Georgia that falls within the category of an affected unit. The unit is located at the Centers for Disease Control and Prevention (CDC) - Roybal Campus in Atlanta, Georgia.

The CDC HMIWI is subject to the requirements of this plan and of Georgia Rule 391-3-1-.02(2)(iii). A State Plan was submitted to EPA for approval on September 15, 1998 and approved by EPA on February 25, 2000 (65 FR 10022). The original plan sited 81 possible affected sources. Currently there is only one identified source (CDC). Subpart Ce was amended in October 2009 (74 FR 51368) which will update Georgia's State Plan to reflect the emission guidelines (EG) and the State's source inventory changes. The State Rule has also been updated. This is an amendment to Georgia's State Plan for implementation of HMIWI EGs.

A public hearing on the updated State Rule was conducted on December 11, 2017. The Division did not receive any oral or written comment during the public comment period.

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List of Acronyms

Acronym	Meaning
CAA	Clean Air Act
CEMS	Continuous Emissions Monitoring System
CFR	Code of Federal Regulations
dscm	dry standard cubic meter
EG	Emission guidelines
EPA	Environmental Protection Agency
mg	milligram
ng	nanogram
NSPS	New Source Performance Standards
O.C.G.A.	Official Code of Georgia Annotated
PTE	Potential to emit
PTM	Procedures for Testing and Monitoring Sources of Air Pollutants, GA EPD, Air Protection Branch
HMIWI	Hospital/Medical/Infectious Waste Incinerator

Georgia State Plan for Implementation of Existing HMIWI Emission Guidelines

1.0 Introduction

This document is Georgia's State Plan for the implementation of U.S. EPA's *Emission Guidelines and Compliance Times for Existing Hospital/Medical/Infectious Waste Incinerators* (40 CFR part 60 subpart Ce). This plan covers hospital/medical/infectious waste incinerator (HMIWI) units:

- For which construction was commenced on or before June 20, 1996, or for which modification was commenced on or before March 16, 1998.
- For which construction was commenced after June 20, 1996, but no later than December 1, 2008, or for which modification is commenced after March 16, 1998, but no later than April 6, 2010.

A HMIWI unit is defined as any device that combusts any amount of hospital waste and/or medical/infectious waste. In more detail, 60.51c describes hospital/medical/infectious waste as the following:

- Hospital waste - discards generated at a hospital, except unused items returned to the manufacturer. The definition of hospital waste does not include human corpses, remains, and anatomical parts that are intended for interment or cremation, and
- Medical/infectious waste - any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. The list of biologicals is contained in 40 CFR 60.51c definitions.

2.0 Regulation of Air Pollutant Emissions from Existing HMIWI Units

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

2.1 CAA Requirements

HMIWI 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 emission guidelines (EG) for these units. These statutory requirements are implemented through the following Federal regulations:

- 40 CFR part 60;
- 40 CFR part 60 subpart Ce, *Emission Guidelines and Compliance Times for Existing Hospital/Medical/Infectious Waste Incinerator Units*;
- 40 CFR part 60 subpart Ec, *Standards of Performance for New Stationary Sources: Hospital/Medical/Infectious Waste Incinerators*; and

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- 40 CFR part 62 subpart HHH—*Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed on or Before December 1, 2008.*

In 2009, the HMIWI EG subpart Ce was revised to establish existing sources as those constructed on or before December 1, 2008. As a result, CDC unit INC3, which started off as a new unit, is now classified as an existing unit. In addition to these regulations, EPA's *Federal Plan Requirements for HMIWI Constructed on or Before December 1, 2008* (40 CFR part 62 subpart HHH) was made effective in 2013. Because Georgia doesn't have an approved state plan, CDC's Title V Operating Permit lists subpart HHH as applicable to INC3.

2.2 Emissions Limits

When EG subpart Ce and NSPS subpart Ec were written, units were assigned compliance schedules depending on construction dates to allow facilities enough time to achieve compliance. Therefore, existing HMIWI units built before 1996 are required to comply with emissions limits set out in Table 1B of subpart Ce. Existing HMIWI units built after 1996 but before 2008 are required to comply with emissions limits in either Table 1B of subpart Ce or Table 1A of subpart Ec, whichever is more stringent¹.

The pollutant emissions limits for existing HMIWI units are expressed as emission rates in mass per volume of effluent gas. The limits are presented in Tables 2-1 and 2-2 for subpart Ce and subpart Ec, respectively. Units built between 1996 and 2008, such as CDC unit INC3, must comply with the stricter emission limit.

¹ See 40 CFR §60.33e(a)(2) - (3).

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Table 2-1. Emission Limits for Existing HMIWI Units (Table 1B to 40 CFR part 60 subpart Ce²)

Pollutant	Measurement Units (at 7% O₂, dry basis)	Small HMIWI	Medium HMIWI	Large HMIWI
particulate matter (PM)	mg/dscm	66	46	25
carbon monoxide (CO)	ppmv	20	5.5	11
dioxins/furans: total mass ³	ng/dscm	16	0.85	9.3
dioxins/furans: toxic equiv. ³	ng/dscm	0.013	0.020	0.054
hydrogen chloride (HCl)	ppmv	44	7.7	6.6
sulfur dioxide (SO ₂)	ppmv	4.2	4.2	9.0
Nitrogen oxides (NO _x)	ppmv	190	190	140
lead (Pb)	mg/dscm	0.31	0.018	0.036
cadmium (Cd)	mg/dscm	0.017	0.013	0.0092
mercury (Hg)	mg/dscm	0.014	0.025	0.018

² Refer to Table 1B to subpart Ce of part 60 for averaging times and methods for demonstrating compliance.

³ Affected sources can comply with either the total mass basis or toxic equivalency basis emission limit for dioxins/furans.

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Table 2-2. Emission Limits for Existing HMIWI Units (Table 1A to 40 CFR part 60 subpart Ec⁴)

Pollutant	Measurement Units (at 7% O₂, dry basis)	Small HMIWI	Medium HMIWI	Large HMIWI
particulate matter (PM)	mg/dscm	69	34	34
carbon monoxide (CO)	ppmv	40	40	40
dioxins/furans: total mass ⁵	ng/dscm	125	25	25
dioxins/furans toxic equiv. ⁵	ng/dscm	2.3	0.6	0.6
hydrogen chloride (HCl)	ppmv	15	15	15
sulfur dioxide (SO ₂)	ppmv	55	55	55
Nitrogen oxides (NO _x)	ppmv	250	250	250
lead (Pb)	mg/dscm	1.2	0.07	0.07
cadmium (Cd)	mg/dscm	0.16	0.04	0.04
mercury (Hg)	mg/dscm	0.55	0.55	0.55

The range for a small HMIWI unit is the following⁶:

- Maximum design waste burning capacity is less than or equal to 200 lbs/hr; or
- Continuous or intermittent HMIWI whose maximum charge rate is less than or equal to 200 lbs/hr; or
- Batch HMIWI whose maximum charge rate is less than or equal to 1,600 lbs per day.

Therefore, CDC unit INC3 falls within the definition of a small HMIWI; and because it was built in 2006, CDC unit INC3 must comply with the more stringent limits from the above Tables 2-1 and 2-2.

⁴ Refer to Table 1A to subpart Ec of part 60 for averaging times and methods for demonstrating compliance.

⁵ Affected sources can comply with either the total mass basis or toxic equivalency basis emission limit for dioxins/furans.

⁶ From 40 CFR §60.51c Definitions.

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2.3 Requirements for a State Plan

The requirements for a state to submit state plans are included in both 40 CFR part 60 subpart B and in 40 CFR part 60 subpart Ce. 40 CFR part 60 subpart B contains more general requirements for all new and existing sources, whereas subpart Ce is specific to existing HMIWI units.

The plan elements required by 40 CFR part 60 subpart Ce are listed in Table 2-3 along with cross-references to the corresponding sections of the Georgia State Plan.

Table 2-3. Required State Plan Elements

Plan Element	Section of Georgia State Plan
Facility inventory	3.1
Unit-level emissions inventory	3.2, 3.3, 3.4
Compliance dates and increments of progress for affected units	6.0
Emissions limits and standards	2.2
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

2.4 Georgia Rule 391-3-1-.02(2)(iii)

Existing HMIWI units must comply with Georgia Rule 391-3-1-.02(2)(iii), *Hospital/Medical/Infectious Waste Incinerators* (see Appendix A). The State Rule was promulgated to ensure that affected HMIWI units comply with the requirements of the HMIWI EG rule (40 CFR part 60 subpart Ce). Georgia's rule adopts the HMIWI EG by reference, with the exception of some requirements primarily related to operating limits, performance testing, monitoring, demonstration of initial and continuous compliance, and reporting and recordkeeping. 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.

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3.0 Facility and Emissions Inventories

To the best of the State's knowledge, only one operable HMIWI unit exists in the State of Georgia. The unit is located at the Centers for Disease Control - Roybal Campus in Atlanta. This State Plan contains an inventory of facilities and inventories of HMIWI unit emissions along with pollutants regulated under this rule. Should another source be discovered subsequent to this notice, there will be no need to reopen the State Plan. All required items will be reported as agreed in Georgia's Air Planning Agreement.⁷

3.1 Facility Inventory

All units that are included in Georgia's inventory must comply with Georgia's Rule (iii) and meet the requirements that are outlined in this plan. If a facility no longer intends to operate a HMIWI 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 to 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, GA 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 or more of the inoperability criteria have 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 and reported as required by Georgia's Air Planning Agreement.

The State Plan must include an inventory of existing HMIWI units. The original State Plan contains 81 potential units, but currently there is only one operating. The inventory of units by facility and location, which is only one in this case, is presented in Table 3-1. The table also includes the current operating permits for the unit and the operating permit date. Table 3-2 presents design and operating characteristics, as available, for the existing HMIWI unit.

⁷ Georgia's Air Planning Agreement is an annual report demonstrating Georgia's ability to meet its commitments with EPA. A copy is available upon request; contact Air Protection Branch, 4244 International Pkwy, Ste 120, Atlanta, Georgia 30354, Tel: (404) 363-7000.

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Table 3-1. Existing HMIWI Unit - Inventory⁸

Facility	AIRS No.	City (County)	No. of Units	Current Air Permit No.	Title V Permit?	Start of Permitted Operation of HMIWI Unit
Centers for Disease Control and Prevention – Roybal	04-13-089-00005	Atlanta (DeKalb)	1	9431-089-0005-V-03-0	yes	Installed 2006

Table 3-2. Existing HMIWI Unit - Characteristics⁹

Facility	Unit ID	Type	Capacity (lb/hour)	Auxiliary fuels burned	Air Pollution Control (per air permit)
Centers for Disease Control and Prevention – Roybal	INC3	Small HMIWI	120	Natural gas	Rotating Disc Atomizer Scrubber

3.2 Emissions Inventory

The INC3 unit located at the CDC can burn up to 120 lb/hr at a rate of 9500 Btu/lb of medical waste. It is equipped with a rotary atomizing wet scrubber. CDC unit INC3 was installed in 2006 and subsequently permitted on October 4, 2006. Therefore the applicable emission guidelines are for those constructed after June 20, 1996 but before December 1, 2008.

40 CFR 60.25(a) requires unit-level emissions inventories, in the units of the standard, for each of the designated pollutants. The State Rule requires the facility not exceed the standards in EG subpart Ce or NSPS subpart Ec, whichever requirement is more stringent. The CDC permit currently complies with Federal Plan subpart HHH.

The State has chosen to incorporate by reference EG subpart Ce. Provision 60.33e(a)(3) states that a facility constructed after June 20, 1996 but before December 1, 2008 will follow the more stringent requirements of either EG subpart Ce Table 1B or NSPS subpart Ec, Table 1A. All limits are based on 7% oxygen dry basis.

⁸ Data for Table 3-1 obtained from Permit Numbers 9431-089-0005-V-01-3 and 9431-089-0005-V-03-0.

⁹ Data for Table 3-2 obtained from Permit Numbers 9431-089-0005-V-01-3 and 9431-089-0005-V-03-0.

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3.3 Performance Test Basis

The 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. Tests performed on CDC unit INC3 for regulated pollutants and opacity were pulled from 2006, 2007, 2016, 2017, and 2018 test reports. The rule allows affected sources to comply with either the total mass basis or toxic equivalency basis emission limit for dioxins/furans. CDC INC3 was only tested for the toxic equivalency value and there is no data available for total mass. A summary of the test data is presented in Table 3-3, with all test results converted to the units of the EG subpart Ce standard.

Table 3-3. Existing HMIWI Emissions (CDC INC3)

Pollutant¹⁰	Unit of Measure	Federal Limit	INC 3 Emissions	Performance Test Year (if applicable)
particulate matter (PM)	gr/dscf	0.029	0.018	2016
carbon monoxide (CO)	ppm	20	5.0	2016
dioxins/furans: total mass ¹¹	ng/dscm	16	--	--
dioxins/furans toxic equiv. ¹⁰	ng/dscm	0.013	0.0045	2007
hydrogen chloride (HCl)	ppm	15	0.33	2016
sulfur dioxide (SO ₂)	ppmv	4.2	0.1	2018
Nitrogen oxides (NO _x)	ppmv	190	38.9	2018
lead (Pb)	mg/dscm	0.31	0.073	2006
cadmium (Cd)	mg/dscm	0.017	0.0055	2006
mercury (Hg)	mg/dscm	0.014	0.0029	2006
Opacity	(%)	6	0	2017

¹⁰ All limits corrected to 7% oxygen dry basis

¹¹ Affected sources can comply with either the total mass basis or toxic equivalency basis emission limit for dioxins/furans.

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3.4 Exempt HMIWI

Incinerators that burn hospital/medical/infectious waste and also have construction dates that trigger HMIWI applicability, must comply with EG subpart Ce or NSPS subpart Ec unless the unit is considered a co-fired combustor or only burns pathological, chemical, or low-level radioactive waste. Pathological waste, chemotherapeutic waste, and low-level radioactive waste are defined in 40 CFR 60.51c.

The definition of co-fired combustor can be found in 40 CFR 60.51c and this type of combustor is counted as *“a unit combusting hospital waste and/or medical/infectious waste with other fuels or wastes (e.g., coal, municipal solid waste) and subject to an enforceable requirement limiting the unit to combusting a fuel feed stream, 10 percent or less of the weight of which is comprised, in aggregate, of hospital waste and medical/infectious waste as measured on a calendar quarter basis. For purposes of this definition, pathological waste, chemotherapeutic waste, and low-level radioactive waste are considered “other” wastes when calculating the percentage of hospital waste and medical/infectious waste combusted.”*

A unit that qualifies as a co-fired combustor or one that only burns approved waste, must notify EPA of such exemption claim according to 40 CFR 60.50c(b) and (c). During times that the units burn only pathological, chemical, and/or low-level radioactive waste, the owner/operator must keep records on a calendar quarter basis of the periods of time this waste is combusted. In order for co-fired combustors to receive the exemption they must, provide an estimate of the relative weight of hospital waste, medical/infectious waste, and other fuels and/or wastes to be combusted; and keep records on a calendar quarter basis of the weight of hospital waste and medical/infectious waste combusted, and the weight of all other fuels and wastes combusted at the co-fired combustor.

Georgia EPD has identified ten units at four facilities that have filed for exemptions. The names of the facilities are listed in Table 3-4. The characteristics of each unit are listed in Table 3-5. All units are characterized as pathological waste incinerators. However, current permits allow the incinerators to burn up to 10% HMI waste which does not include pathological waste (e.g. human or animal remains). Once these pathological waste incinerators burn any HMI waste, these units are then characterized as co-fired combustors.

At one point in time, units I003 and I006 at University of Georgia (UGA) burned low-level radioactive waste and chemotherapeutic waste as possible fuels to be burned in the incinerators. Units I003 and I006 are no longer at the facility; therefore, UGA is no longer capable of burning these two types of waste and only burns pathological waste in incinerators units I001, I002, and I004. There are no known facilities in Georgia that burn low-level radioactive waste and/or chemotherapeutic waste. All of Georgia’s exempt HMIWI units burn pathological waste and are allowed to burn up to 10% HMI waste.

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Table 3-4. Exempt HMIWI - Inventory

Facility	AIRS No.	City (County)	No. of Units	Current Air Permit No.	Title V Permit?
Centers for Disease Control and Prevention (CDC) - Lawrenceville ¹²	04-13-135-00008	Lawrenceville (Gwinnett)	1	8071-135-0008-S-01-0	No
Centers for Disease Control and Prevention (CDC) - Roybal ¹³	04-13-089-00005	Atlanta (DeKalb)	1	9431-089-0005-V-03-0	Yes
Deceased Pet Care, Inc. ¹⁴	04-13-135-0247	Bethlehem (Gwinnett)	5	7261-135-0247-S-01-0	No
University of Georgia ¹⁵	04-13-059-00059	Athens (Clarke)	3	8221-059-0059-V-03-0	Yes

¹² Data obtained from Permit Number 8071-135-0008-S-01-0.

¹³ Data obtained from Permit Number 9431-089-0005-V-01-0.

¹⁴ Data obtained from Permit Number 7261-135-0247-S-01-0.

¹⁵ Data obtained from Permit Number 8221-059-0059-V-02-1.

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Table 3-5. Exempt HMIWI - Characteristics

Facility	Unit ID	Type¹⁶	Capacity (lb/hour)	Auxiliary fuels burned	Air Pollution Control (per air permit)	Start of Permitted Operation
CDC - Lawrenceville	INC1	Pathological Waste Incinerators	132	NG No. 2 Fuel Oil	None	1980s
CDC - Roybal	INC1	Pathological Waste Incinerators	75	NG	None	1988
Deceased Pet Care, Inc	I001	Pathological Waste Incinerators	250	NG	None	Pre-1996
Deceased Pet Care, Inc	I002	Pathological Waste Incinerators	150	NG	None	Pre-1996
Deceased Pet Care, Inc	I003	Pathological Waste Incinerators	375 (3100) ¹⁷	NG	None	Pre-1996
Deceased Pet Care, Inc	I004	Pathological Waste Incinerators	500 (5000) ¹⁷	NG	None	Pre-1996
Deceased Pet Care, Inc	I005	Pathological Waste Incinerators	200 (600) ¹⁷	NG	None	Pre-1996
University of Georgia	I001	Pathological Waste Incinerators	500	NG ¹⁸	None	1991
University of Georgia	I002	Pathological Waste Incinerators	500	NG ¹⁸	None	1998
University of Georgia	I004	Pathological Waste Incinerators	175	NG ¹⁸	None	1998

¹⁶ All units are labeled as pathological waste incinerators. For the State Plan they will be considered co-fired combustors since they are allowed to burn up to 10% HMI waste.

¹⁷ This is the intermittent mode of operation, the number in parenthesis is the batch mode of operation.

¹⁸ Found in Condition 6.2.10 of Permit No.: 8221-059-0059-V-03-0.

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3.5 Summary

Georgia EPD has identified only one operating HMIWI unit. Georgia has ten known pathological waste incinerators located at four facilities that have filed for exemptions. All exempt incinerators are permitted to burn up to 10% HMI waste and must submit the required documentation for compliance.

The one HMIWI unit is located at the CDC's Roybal campus in Atlanta operating under Permit No. 9431-089-0005-V-03-0. Several performance tests have been conducted on the CDC's HMIWI unit, INC3, with the most recent tests presented in Table 3-3. Opacity along with dioxin/furans, PM, HCl, CO, mercury, cadmium, lead, NO_x, and SO₂ are to be tested. All pollutants have been tested and the data shows that all emissions are compliant with the federal emission guidelines.

4.0 State Plan Provision

CAA 111(d)(1) states that “each State shall submit to the Administrator a plan which (A) establishes standards of performance for any existing source for any air pollutant and (B) provides for the implementation and enforcement of such standards of performance.”

Specifically, the state plan must address the following components:

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

States are free to adopt portions of the emission guidelines using it as a template. The language in EG subpart Ce is directed toward the state and therefore the state cannot directly incorporate by reference. With the exception of emissions limits, the state may adopt NSPS subpart Ec language for existing units. The NSPS is a federal rule that is directly applicable to sources. State Rule (iii) adopts the operator training, operating limits, performance testing, recordkeeping, and reporting requirements of NSPS subpart Ec with a few exceptions such as emissions limits, compliance times, and increments of progress.

5.0 Operator Training and Qualification

40 CFR part 60 subpart Ce¹⁹ requires existing HMIWI units to follow the requirements of 40 CFR 60.53c and 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 pathogen destruction and types of emissions;
- Basic combustion principles, including products of combustion;
- Operation of the type of incinerator to be used by the operator, including proper startup, waste charging, and shutdown procedures;
- Combustion controls and monitoring;
- Operation of air pollution control equipment and factors affecting performance (if applicable);
- Methods to monitor pollutants (continuous emission monitoring systems (CEMSs) and monitoring of HMIWI and air pollution control device operating parameters) and equipment calibration procedures (where applicable);
- Inspection and maintenance of the HMIWI, air pollution control devices, and CEMSs;
- Actions to correct malfunctions or conditions that may lead to malfunction;
- Bottom and fly ash characteristics and handling procedures;
- Applicable federal, state, and local regulations;

¹⁹ 40 CFR §60.34e

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- Work safety procedures;
- Pre-startup inspections; and
- Recordkeeping requirements.

In addition, the operator must take and pass an examination designed and administered per 40 CFR 60.53c(b). 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;
- Incinerator operation, including startup and shutdown procedures;
- Inspection and maintenance;
- Responses to malfunctions or conditions that may lead to malfunction; and
- Discussion of operating problems encountered by attendees.

Affected facilities must provide or arrange for the required training, including the training examination, for operators that they will designate as qualified operators. All training documentation must be retained by the facility and available upon request by Georgia EPD. Other elements of a facility's training and qualification program may require State approval at Georgia EPD's discretion.

6.0 Compliance Dates and Increments of Progress

40 CFR 60.24(e) details the requirements for compliance schedules. For example, compliance schedules that exceed the 12-month limit must include legally enforceable increments of progress to achieve compliance for each designated facility or category of facilities (40 CFR 60.24(e)(1)). A state plan may also outline an alternative compliance schedule (40 CFR 60.24(e)(2)).

EG subpart Ce does not include increments of progress but allows the state to provide additional time for compliance for facilities. Compliance with the emission guidelines is required by October 6, 2010, with a final compliance date of October 6, 2014, if the state needs to include more time in the state plan. If the state opts for the extended compliance date then increments of progress must be included in the state plan. The facility must submit the requirements of 40 CFR 60.39e(c) if the state allows for an extended compliance date.

Additionally, the affected owner/operator is required to comply with the Federal Plan until Georgia has an approved state plan. Affected units are instructed to follow 40 CFR part 62 subpart HHH (*Federal Plan Requirements for Hospital/Medical/Infectious Waste Incinerators Constructed On or Before December 1, 2008*) until the state has an approved plan. CDC is currently subject to this Federal Plan and requirements are included in the facility's Title V permit. The final compliance date according to Federal Plan subpart HHH was October 6, 2014. All compliance dates have passed and therefore increments of progress and compliance schedules are not included in this State Plan. Affected facilities are

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required to be in full compliance of Georgia State Rule (iii) upon EPA approval of Georgia's State Plan. CDC is currently compliant with Federal Plan subpart HHH and therefore no additional requirements will be imposed.

7.0 Performance Testing, Record Keeping, and Reporting

Performance testing and compliance requirements are specified in 40 CFR 60.56c, "Compliance and performance testing". In lieu of these requirements, Section 2.117.2 of Georgia EPD's PTM shall apply to each of Georgia's existing HMIWI units. Monitoring requirements are specified in 40 CFR 60.57c. In lieu of these requirements, Section 2.117.3 of the PTM shall apply to each of Georgia's existing HMIWI units. Reporting and recordkeeping requirements are specified in 40 CFR 60.58c and in lieu of these requirements, Section 2.117.4 of the PTM shall apply. The PTM requirements are at least as protective as the NSPS subpart Ec elements referenced in this paragraph.

8.0 Operating Limits and Requirements

Operating limits and requirements for existing HMIWI units are specified in State Rule (iii)4.(vi) and 2.117.2 of the PTM. The adopted operating limits implement the requirements of 40 CFR 60.56c. Operators of HMIWI units must establish operating limits/requirements that include, but may not be limited to, the following:

- Wet scrubber operation,
- Fabric filter operation,
- Selective Non-Catalytic Reduction, and
- Dry Scrubber.

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 40 CFR 60.56c(j) and must petition the EPA Administrator for specific operating limits to be established during the initial performance test and continuously monitored thereafter.

Provisions 60.56c(j) and 60.57c(d) of NSPS subpart Ec state that an owner/operator shall petition the Administrator to establish any site specific operating parameters during the initial performance test and continuous monitoring thereafter. The Director of the Georgia Environmental Protection Division does not have delegated authority to approve or establish site specific operating and alternative monitoring procedures as specified in 40 CFR 60.56c(j) and 60.57c(d). Therefore the Director will not approve or establish site-specific operating and alternative monitoring procedures without first obtaining written concurrence or approval from the EPA.

9.0 State Progress Reports

40 CFR 60.25(e) requires the State to submit progress reports on plan enforcement to the EPA on an annual basis. The reporting period is the calendar year. The first report must

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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.

All required items will be reported as previously agreed in Georgia's Air Planning Agreement.

10.0 Title V Permits

State Rule (iii) requires each owner or operator of an existing HMIWI 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 Administrator no later than the Federal Plan compliance dates described in Section 6.0 of this State Plan. Those facilities that have Title V permitted HMIWI units that 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 HMIWI Federal Plan. The permits of facilities that have Title V permits but do not need to add controls will be amended to address the HMIWI Federal Plan 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 Waste Management Plan

40 CFR 60.55c requires each owner or operator of an existing HMIWI unit to develop and submit a Waste Management Plan (WMP). The WMP is a written plan that insures that methods are used by the facility to reduce or eliminate toxic emissions from the health care waste stream. The WMP must include consideration of the reduction or separation of elements such as segregation and recycling of paper, cardboard, plastics, glass, batteries, food waste, and metals (e.g., aluminum cans, metals-containing devices); segregation of non-recyclable wastes (e.g., polychlorinated biphenyl-containing waste, pharmaceutical waste, and mercury-containing waste, such as dental waste); and purchasing recycled or recyclable products. The American Hospital Association publication entitled "An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities" (incorporated by reference, see §60.17) shall be considered in the development of the waste management plan. Lastly, the WMP must implement those measures considered practical and feasible,

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based on effectiveness of waste management measures already in place, costs of additional measures, emissions reductions expected to be achieved, and any other environmental or energy impacts they might have.

Affected facilities are required to have a Waste Management Plan submitted upon EPA approval of Georgia's State Plan.

12.0 Other Plan Requirements

Other plan requirements include:

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

These requirements are addressed below.

12.1 Documentation of Public Notification and Participation

Public notice of changes to State Rule (iii) and the opportunity to comment on it was posted on November 8, 2017. A public hearing on the incorporation of HMIWI requirements into the Georgia Rules for Air Quality Control was held at 1:30 p.m. on December 11, 2017, at the Environmental Protection Division Training Center, Atlanta Tradeport, 4244 International Parkway, Suite 116, Atlanta, GA 30354. No comments were received from the public.

12.2 Identification of enforceable state mechanisms for implementing the emission guidelines

40 CFR part 60 subpart Ce, *Emission Guidelines and Compliance Times for Hospital/Medical/Infectious Waste Incinerators*, and 40 CFR part 60 subpart Ec, *Standards of Performance for New Stationary Sources: Hospital/Medical/Infectious Waste Incinerators*, were adopted as a part of Rule 391-3-1-.02(2)(iii) of the Georgia Rules for Air Quality Control. The rule became effective on March 28, 2018.

12.3 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.

Legal authority is demonstrated through *Attorney General's Opinion Regarding State Authority to Operate the Title V Operating Permit Program in Accordance with 502(d) of the Federal Clean Air Act* dated November 1, 1993 and *Supplemental Attorney General's Opinion Regarding State Authority to Operate the Title V Operating Permit Program in*

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Accordance with 502(d) of the Federal Clean Air Act dated November 10, 1994. The same authority that allows Georgia EPD to operate its Title V program, allows Georgia EPD to implement a State Plan for HMIWI units. A copy of the Attorney General's Opinion can be found in Appendix C.

13.0 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 (40 CFR 60.23(c)) and to approval by U.S. EPA (40 CFR 60.28(c)).