

# Florida Department of Environmental Protection

## Memorandum

TO: Joseph Kahn, Division of Air Resource Management  
THROUGH: Trina L. Vielhauer, Chief, Bureau of Air Regulation *TV*  
Jon Holtom, P.E., Title V Section *JH*  
FROM: Scott M. Sheplak, P.E., Title V Section *SMS*  
DATE: July 6, 2009  
SUBJECT: Final Permit No. 0710119-006-AV  
Lee County, Lee County Resource Recovery Facility  
Title V Air Operation Permit Revision

**Permitting Clock:** ARMS Day 45 was July 4, 2009

The final permit for this project is attached for your approval and signature, which revises the Title V air operation permit to include the new unit, Unit 3 and the May 10, 2006, federal amendments to 40 Code of Federal Regulations (CFR) which apply to the 'existing' municipal waste combustor (MWC) Units 1 & 2 and the 'new' MWC Unit 3.

This was our 1<sup>st</sup> Title V air operation permit to incorporate a New Source Performance Standards (NSPS) - 40 CFR 60, Subpart Eb unit and our 1<sup>st</sup> Title V air operation permit to reflect the May 10, 2006, federal amendments for large MWCs.

The attached final determination identifies issuance of the combined draft/proposed permit, summarizes the publication process, and provides the Department's response(s) to comment(s) (if any) on the draft permit. There are no pending petitions for administrative hearings or extensions of time to file a petition for an administrative hearing.

I recommend your approval of the attached final permit for this project.

TLV/jkh/sms

Attachments

**NOTICE OF FINAL PERMIT**

*In the Matter of an  
Application for Permit by:*

Lee County  
10500 Buckingham Road, Suite 200  
Fort Myers, Florida 33905

Final Permit No. 0710119-006-AV  
Lee County Resource Recovery Facility

*Responsible Official:*

Mr. Lindsay J. Sampson, P.E.  
Director, Solid Waste Division

Title V Air Operation Permit Revision  
Lee County

Enclosed is the final permit package to revise the Title V air operation permit for the Lee County Resource Recovery Facility. This Title V air operation permit revision is being issued to include the new unit, Unit 3 and the May 10, 2006, federal amendments to 40 Code of Federal Regulations (CFR) 60 which apply to the 'existing' municipal waste combustor (MWC) Units 1 & 2 and the 'new' MWC Unit 3, in the Title V air operation permit No. 0710119-004-AV. This existing facility is located at 10500 Buckingham Road, Fort Myers in Lee County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30-days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

TLV/jkh/sms

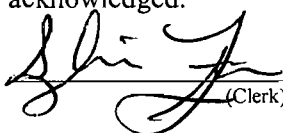
**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final Determination, the Statement of Basis and the Final Permit), or a link to these documents available electronically on a publicly accessible server, was sent by electronic mail with received receipt requested to the persons listed below:

Mr. Lindsay J. Sampson, P.E., Director, Solid Waste Division: [sampsolj@leegov.com](mailto:sampsolj@leegov.com)  
Mr. Donald J. Castro, P.E., HDR Engineering, Inc.: [Don.Castro@HDRInc.com](mailto:Don.Castro@HDRInc.com)  
Mr. Kirk Dunbar, HDR Engineering, Inc.: [Kirk.Dunbar@HDRInc.com](mailto:Kirk.Dunbar@HDRInc.com)  
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Mr. A. J. Satyal, DEP-SD: [Ajaya.Satyale@dep.state.fl.us](mailto:Ajaya.Satyale@dep.state.fl.us)  
Ms. Katy R. Forney, U.S. EPA, Region 4: [Forney.Kathleen@epamail.epa.gov](mailto:Forney.Kathleen@epamail.epa.gov)  
Ms. Ana Oquendo, US EPA, Region 4: [Oquendo.Ana@epamail.epa.gov](mailto:Oquendo.Ana@epamail.epa.gov)  
Ms. Barbara Friday, DEP BAR: [Barbara.Friday@dep.state.fl.us](mailto:Barbara.Friday@dep.state.fl.us) (for posting with U.S. EPA, Region 4)  
Ms. Victoria Gibson, DEP BAR: [Victoria.Gibson@dep.state.fl.us](mailto:Victoria.Gibson@dep.state.fl.us) (for reading file)

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.



(Clerk)

7/16/09  
(Date)

## FINAL DETERMINATION

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### PERMITTEE

Lee County  
10500 Buckingham Road, Suite 200  
Fort Myers, Florida 33905

### PERMITTING AUTHORITY

Florida Department of Environmental Protection (Department)  
Division of Air Resource Management  
Bureau of Air Regulation, Title V Section  
2600 Blair Stone Road, MS #5505  
Tallahassee, Florida 32399-2400

### PROJECT

Permit No. 0710119-006-AV  
Lee County Resource Recovery Facility

The purpose of this project is to revise the Title V air operation permit for the Lee County Resource Recovery Facility.

This permit was processed using a parallel review.

### PUBLIC NOTICE

A Written Notice of Intent to Issue a Title V Air Operation Permit to Lee County, Department of Solid Waste for the Lee County Resource Recovery Facility located in Lee County at 10500 Buckingham Road, Fort Myers, Florida, was clerked on May 7, 2009. The Public Notice of Intent to Issue a Title V Air Operation Permit was published in the Ft. Myers Press on May 20, 2009. The Draft/Proposed Title V air operation permit was available for public inspection at the permitting authority's office in Tallahassee. Proof of publication of the Public Notice of Intent to Issue a Title V Air Operation Permit was received on June 5, 2009.

### COMMENTS

On May 7, 2009, the Department informed US EPA Region 4 that this permit was being processed using a parallel review. No comments on the Draft/Proposed Permit were received from the US EPA Region 4 Office.

No comments were received from the public during the 30 day public comment period; however, comment(s) were received from the Applicant on June 15, 2009. The comment(s) are addressed below.

#### Applicant Comment

1. The applicant requested permit language to address an error in the federal regulation regarding the testing schedule for HCl and fugitive ash emissions (see comment letter dated June 12, 2009).

**Response:** The Department is unable to add the suggested language to the permit. The following note had been already added to the Statement of Basis in the Draft/Proposed permit regarding this error:

“On January 22, 2009, the Department received an e-mail from U.S. EPA confirming an error in the Code of Federal Regulations (CFR) regarding the testing schedule for fugitive ash and hydrogen chloride (HCl) emissions. In the federal register U.S. EPA clearly intended to make the testing schedule change apply to all air pollutants (see the May 10, 2006 federal register, page number 27326). In the e-mail U.S. EPA confirmed the error in the CFR and they plan to correct the error as soon as possible. Until the error is corrected in the federal regulation, the testing schedule for fugitive ash and HCl emissions is kept intact.”

## **FINAL DETERMINATION**

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The U.S. EPA e-mail acknowledging the CFR error is on file with the permitting authority. No changes are made to the permit.

### **CONCLUSION**

The Draft/Proposed Title V air operation permit was not changed. The final action of the Department is to issue the Final permit.



# Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

**Permittee:**

Lee County  
1500 Monroe Street  
Fort Myers, Florida 33901

Final Permit No. 0710119-006-AV  
Facility ID No. 0710119  
SIC No(s). 49, 4953  
Project: Title V Air Operation Permit Revision

The purpose of this permit revision is to incorporate a new unit, Unit 3 (from air construction permit No. 0710119-005-AC/PSD-FL-151D), into the Title V air operation permit. Lee County also requested that the Department incorporate recent amendments to 40 Code of Federal Regulations (CFR) 60, Subpart Cb promulgated on May 10, 2006, for the existing Units 1 and 2 into the Title V air operation permit. The federal amendments to 40 CFR 60, Subpart Eb promulgated on May 10, 2006, apply to the new unit as well. This facility is located at 10500 Buckingham Road, Ft. Myers, Lee County; UTM Coordinates: Zone 17, 424.21 km East and 2945.70 km North; Latitude: 26° 37' 54" North and Longitude: 81° 45' 41" West.

This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**

APPENDIX TV-6, TITLE V CONDITIONS version dated 06/23/06  
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96  
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96  
Appendix U-1, List of Unregulated Emissions Units and/or Activities  
Appendix I-1, List of Insignificant Emissions Units and/or Activities  
Appendix BW, Biomedical Waste Definitions  
Appendix CAM  
Appendix 40 CFR 60 Subpart A (version dated 10/09/08)  
Appendix 40 CFR 60 Subpart Eb (version dated 04/21/2008)

0710119-004-AV Effective Date: April 4, 2006  
**Revision Effective Date:** July 14, 2009  
**Renewal Application Due Date:** August 21, 2010  
**Expiration Date:** April 3, 2011

Joseph Kahn, Director  
Division of Air Resource Management

JHK/tlv/jkh/sms

## STATEMENT OF BASIS

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Lee County Department of Solid Waste  
Lee County Resource Recovery Facility

Facility ID No. 0710119  
Lee County

The purpose of this permit revision is to incorporate a new unit, Unit 3 (from air construction permit No. 0710119-005-AC/PSD-FL-151D), into the Title V air operation permit. Lee County also requested that the Department incorporate recent amendments to 40 Code of Federal Regulations (CFR) 60, Subpart Cb promulgated on May 10, 2006, for the existing Units 1 and 2 into the Title V air operation permit. The federal amendments apply to the new unit as well. The compliance deadline with the May 10, 2006 federal amendments was April 28, 2009.

The text within the permit where significant additions were made as a result of the May 10, 2006, federal amendments was highlighted with double underlining in the Draft/Proposed permit.

Units 1 and 2 are regulated as 'existing' units under 40 CFR 60, Subpart Cb. Unit 3 is regulated as a 'new' unit under 40 CFR 60, Subpart Eb.

The federal amendments to 40 CFR 60, Subparts Cb and Eb were promulgated by U.S. EPA on May 10, 2006, and were adopted by reference into the Florida rules on May 31, 2007, at Rule 62-204.800(9)(b), Florida Administrative Code (F.A.C.) and Rule 62-204.800(8)(b)7., F.A.C., respectively. Certain exceptions were made in Florida's adoption of 40 CFR 60, Subpart Cb at Rule 62-204.800(9)(b), F.A.C. U.S. EPA filed a motion to remand their amendments on November 9, 2007. Changes to the regulations from the remand have not yet been finalized. The federal amendments are therefore included in this permit for all three units. According to the applicant, no modifications to Units 1, 2, and 3 are necessary to comply with the amendments.

Unit 3 has a nominal capacity of 660 tons/day (TPD) of solid waste fuel with a nominal higher heating value (HHV) of 5,000 Btu/lb at the maximum heat input limit of 291.5 million British thermal units (MMBtu)/hour, it produces up to 20 megawatt (MW) of electricity daily. This unit is a mass burn waterwall combustion system, manufactured by Riley Power Boiler with Martin GmbH Stoker. Unit 3 is equipped with the following air pollution controls: a spray dryer scrubber, a fabric filter baghouse, a dry activated carbon injection system, an optional flue gas recirculation (FGR) system and a selective non-catalytic reduction (SNCR) system. Auxiliary fuel is either propane or natural gas.

Unit 3 has continuous monitors for ammonia, sulfur dioxide (SO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), opacity, flue gas temperature, steam flow and carbon feed. The ammonia monitor was manufactured by MIDAC, the SO<sub>2</sub> continuous emissions monitoring system (CEMS) by AMETEK, and the opacity monitor by SICK MAIHAK. The NO<sub>x</sub> and CO CEMS were made by THERMO.

Unit 3 began operation on August 18, 2007.

As part of the construction of the new Unit 3, under the AC/PSD permit, the existing lime silo and ash handling systems for Units 1 and 2 were impacted via an increased throughput from the new unit. An additional lime silo was constructed, which stores pebble lime, used to make lime slurry. The previously existing carbon silo was replaced by a new carbon silo and a new dolomitic lime silo was installed as part of the Unit 3 project. Each of these new silos, e.g., the pebble lime, carbon, and dolomitic lime, vent internally.

## STATEMENT OF BASIS

This 'new' emissions unit, Unit 3, is regulated under New Source Performance Standards (NSPS) - 40 CFR 60, Subpart Eb, Standards of Performance for New Sources, Large Municipal Waste Combustors for Which Construction Commenced After September 20, 1994, adopted and incorporated by reference in Rule 62-204.800(8)(b)7., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD)(Permit No. PSD-FL-151D); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; 40 CFR 64, Compliance Assurance Monitoring (CAM); and, Florida's mercury rule for Waste-to-Energy Facilities, Rule 62-296.416, F.A.C.

### Unit 3 - AC/PSD Permit Incorporation

Subsection III. from the AC/PSD permit, Permit No. 0710119-005-AC/PSD-FL-151D, is incorporated into this permit herein as the *new* Subsection D. For ease of reference, the conditions from Subsection III.B. of the AC/PSD permit are moved directly into Subsection III.D. with the same numbering. For example, Condition **B.1.** from Subsection III.B. of the AC/PSD permit is now found in this permit in Subsection III.D. as Condition **D.1.** In most cases the conditions in this emissions unit section are verbatim from the AC/PSD permit.

Note that miscellaneous conditions from the Permit No. 0710119-005-AC/PSD-FL-151D were added into other relevant parts of this Title V air operation permit.

### Unit 3 - Compliance Assurance Monitoring (CAM) Applicability

A CAM Plan for Unit 3 was required for sulfuric acid mist (SAM) and hydrogen fluoride (HF) emissions.

### Unit 3 - Incorporation of May 10, 2006 Federal Amendments - Emission Standards and Limitations

The applicant prepared a chart comparing the May 10, 2006 federal amendments as they potentially affected the emission standards and limitations for Unit 3 {see the Additional Information Response dated March 26, 2008}. The following is a chart prepared by the Department comparing the May 10, 2006 federal amendments as they potentially affected the emission standards and limitations for Unit 3.

#### **Unit 3: May 10, 2006 Amendments vs. BACT Standard(s)**

<b>Pollutant Name</b>	<b>BACT Standard(s)</b>	<b>May 10, 2006 Eb standard</b>	<b>BACT more stringent?</b>
Particulate Matter (PM <sub>10</sub> )	20.6 mg/dscm @ 7% O <sub>2</sub>	24 mg/dscm @ 7% O <sub>2</sub>	Yes
Municipal Waste Combustor (MWC) Metals (PM)	20.6 mg/dscm @ 7% O <sub>2</sub>	24 mg/dscm @ 7% O <sub>2</sub>	Yes
Mercury (Hg)	0.028 mg/dscm @ 7% O <sub>2</sub> or 85% reduction <sup>(1)</sup>	0.080 mg/dscm @ 7% O <sub>2</sub> or 85% reduction <sup>(1)</sup>	Yes
Cadmium (Cd)	0.02 mg/dscm @ 7% O <sub>2</sub>	0.02 mg/dscm @ 7% O <sub>2</sub>	No, same
Lead (Pb)	0.2 mg/dscm @ 7% O <sub>2</sub>	0.2 mg/dscm @ 7% O <sub>2</sub>	No, same

**Notes to table:**

(1) Whichever standard is less stringent.

Abbreviations

mg/dscm @ 7% O<sub>2</sub>: milligrams per dry standard cubic meter, corrected to 7% oxygen (O<sub>2</sub>)

## STATEMENT OF BASIS

Under the amendments to the NSPS 40 CFR 60 Subpart Eb, four (4) pollutant limits were lowered which potentially affected Unit 3: PM, Hg, Cd, and Pb. The emission standards and limitations from the PSD-FL-151D permit (BACT) for PM and Hg remain more stringent.

In summary, the May 10, 2006 amendments do not change the emission standards and limitations currently in effect for Unit 3. No changes are made to the emission standards and limitations in this permit for Unit 3.

### Unit 3 - Incorporation of May 10, 2006 Federal Amendments - Other Requirements

The changes from the May 10, 2006 federal amendments are not integrated into the body of the permit within Subsection III.D. The requirements contained in Subsection III.D. of this Title V permit essentially mirror the PSD permit in which many requirements had been blended. The amendments are incorporated into this Title V permit with the attached Appendix Eb.

On January 22, 2009, the Department received an e-mail from U.S. EPA confirming an error in the Code of Federal Regulations (CFR) regarding the testing schedule for fugitive ash and hydrogen chloride (HCl) emissions. In the federal register U.S. EPA clearly intended to make the testing schedule change apply to all air pollutants (see the May 10, 2006 federal register, page number 27326). In the e-mail U.S. EPA confirmed the error in the CFR and they plan to correct the error as soon as possible. Until the error is corrected in the federal regulation, the testing schedule for fugitive ash and HCl emissions is kept intact.

### Units 1 and 2 - Incorporation of May 10, 2006 Federal Amendments - Emission Standards and Limitations

The applicant prepared a chart comparing the May 10, 2006 federal amendments as they potentially affected the emission standards and limitations for Units 1 and 2 {see the Additional Information Response dated March 26, 2008}. The following is a chart prepared by the Department comparing the May 10, 2006 federal amendments as they potentially affected the emission standards and limitations for Units 1 and 2.

#### **Units 1 and 2: May 10, 2006 Amendments vs. Current Permitted Standard(s)**

<b>Pollutant Name</b>	<b>Current Permitted Standard(s)</b>	<b>May 10, 2006 Cb standard</b>	<b>Current Permitted Standard(s) more stringent?</b>
Particulate Matter (PM <sub>10</sub> )	0.010 gr/dscf @ 7% O <sub>2</sub> (equivalent to 24 mg/dscm @ 7% O <sub>2</sub> )	25 mg/dscm @ 7% O <sub>2</sub>	Yes
MWC Metals (PM)	0.010 gr/dscf @ 7% O <sub>2</sub> (equivalent to 24 mg/dscm @ 7% O <sub>2</sub> )	25 mg/dscm @ 7% O <sub>2</sub>	Yes
Mercury (Hg)	0.070 mg/dscm @ 7% O <sub>2</sub> or 85% reduction <sup>(1)</sup>	0.050 mg/dscm @ 7% O <sub>2</sub> or 85% reduction <sup>(1)</sup>	No
Cadmium (Cd)	0.040 mg/dscm @ 7% O <sub>2</sub>	0.035 mg/dscm @ 7% O <sub>2</sub>	No
Lead (Pb)	0.44 mg/dscm @ 7% O <sub>2</sub>	0.400 mg/dscm @ 7% O <sub>2</sub>	No
Nitrogen Oxides (NO <sub>x</sub> )	180 ppmvd @ 7% O <sub>2</sub>	205 ppmvd @ 7% O <sub>2</sub>	Yes
Carbon Monoxide (CO)	100 ppmvd @ 7% O <sub>2</sub>	100 ppmvd @ 7% O <sub>2</sub>	No, same
Dioxin/Furans (CDD/CDF)	30 ng/dscm @ 7% O <sub>2</sub>	30 ng/dscm @ 7% O <sub>2</sub>	No, same

**Notes to table:**

(1) Whichever standard is less stringent.

Abbreviations

gr/dscf: grains per dry standard cubic foot



## STATEMENT OF BASIS

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ppm: part per million dry volume  
ug/dscm: micrograms per dry standard cubic meter

Under the amendments to the Emission Guideline 40 CFR 60 Subpart Cb, seven (7) pollutant limits were lowered which potentially affected Units 1 and 2: PM, Hg, Cd, Pb, NO<sub>x</sub>, CO, and dioxin/furan. Most of the emission standards and limits from PSD-FL-151 permit (BACT) and from within Permit No. 0710119-004-AV for Units 1 and 2 remain more stringent than the Emission Guideline 40 CFR 60 Subpart Cb, including the amendments. Three (3) pollutant limits are, however, lowered under the amendments: Hg, Cd and Pb. This Title V permit revision contains the three lower limits with the compliance deadline of April 28, 2009.

In summary, the May 10, 2006 amendments do change some of the emission standards and limitations currently in effect for Units 1 and 2. Changes are made to the Hg, Cd and Pb emission standards and limitations in this permit for Units 1 and 2.

### Units 1 and 2 - Incorporation of May 10, 2006 Federal Amendments - Other Requirements

Other changes from the May 10, 2006 federal amendments are fully integrated into the body of the permit within Subsection III.A. The other significant changes from the amendments were related to: Operating Practices and Requirements; Operator Training and Certification; Excess Emissions; Test Methods and Procedures; Monitoring Requirements; and, Recordkeeping and Reporting Requirements. This Title V permit revision contains the new requirements.

The federal amendments related to the optional use of CEMS to monitor PM and Hg were not included at the applicant's request.

On January 22, 2009, the Department received an e-mail from U.S. EPA confirming an error in the Code of Federal Regulations (CFR) regarding the testing schedule for fugitive ash and hydrogen chloride (HCl) emissions. In the federal register U.S. EPA clearly intended to make the testing schedule change apply to all air pollutants (see the May 10, 2006 federal register, page number 27326). In the e-mail U.S. EPA confirmed the error in the CFR and they plan to correct the error as soon as possible. Until the error is corrected in the federal regulation, the testing schedule for fugitive ash and HCl emissions is kept intact.

### Other New Applicable Requirements - National Emissions Standards for Hazardous Air Pollutants (NESHAP) Requirements, also referred to as Maximum Available Control Technologies (MACT), from 40 CFR 63

This facility has existing emissions units that were potentially subject to newly promulgated MACTs under 40 CFR 63; specifically, the Reciprocating Internal Combustion Engines (RICE) MACT, 40 CFR 63, Subpart ZZZZ for engines. This facility *is* a major source of hazardous air pollutants (HAP). Key applicability descriptors were added to the emissions units listed in Appendix I-1 which reflect that these units are exempt from this subpart. The non-road type engines were marked as such. Horsepower (hp) ratings, if not already shown, were added to indicate that each engine has a site-rating of less than 500 brake hp.

### Other

#### **Applicability of 40 CFR 60 Subpart Db to Cb/Eb emissions units**

The applicability of NSPS 40 CFR 60 Subpart Db to 40 CFR 60 Subpart Cb/Eb units was changed in the federal register on June 13, 2007, CFR edition 7-1-2008. Units regulated under 40 CFR 60 Subpart Cb/Eb are no longer covered under 40 CFR 60 Subpart Db. The requirements specified in the permit related to 40 CFR 60 Subpart Db are therefore obsolete and are removed.

## STATEMENT OF BASIS

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### Statewide Format Changes

The following Department initiated changes are made in this permitting action:

As a result of a recent rule change to Rule 62-213.420(1)(a)2., F.A.C., the Renewal Application Due Date for Permit No. 0710119-004-AV as shown on the placard page of the permit is changed from: October 5, 2010 to: August 21, 2010. {The rule change requires the renewal application to be submitted 225 days prior to expiration instead of the previous 180 days.}

An updated version of APPENDIX TV, was used - APPENDIX TV-6, TITLE V CONDITIONS version dated 06/23/06.

An updated version of the following appendix is attached to the permit: Appendix 40 CFR 60 Subpart A (version dated 06/01/2006).

The permitting note related to the State Plan approval date of November 13, 1997, and the startup date of the units was moved before Specific Condition **A.16**.

Lee County  
Lee County Resource Recovery Facility  
Facility ID No. 0710119  
Lee County

Title V Air Operation Permit Revision  
(1<sup>st</sup> revision to Permit No. 0710119-004-AV)

Final Permit No. 0710119-006-AV

Permitting Authority:

State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation  
Title V Section

Mail Station #5505  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114  
Fax: 850/921-9533

Compliance Authority:

State of Florida  
Department of Environmental Protection  
South District

2295 Victoria Avenue, Suite 364  
Fort Myers, Florida 33901-3381

Telephone: 941/332-6975  
Fax: 941/332-6969

Title V Air Operation Permit Revision

Final Permit No. 0710119-006-AV

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**Section I. Facility Information.**

**Subsection A. Facility Description.**

The total capacity of the Lee County Resource Recovery Facility is now 1,980 tons/day (TPD) of solid waste fuel with a nominal higher heating value (HHV) of 5,000 Btu/lb. The facility converts solid waste into saleable energy. The facility is self-sufficient and operates on a small portion of the power it generates. The remaining electricity is sold to an electric utility market. The facility is owned by Lee County, and was designed and built, and is currently operated by Covanta Lee, Inc.

The Units 1 and 2 at the Lee County Resource Recovery Facility began operation in August 1994. Units 1 and 2 have a capacity of 660 TPD per unit for a total of 1,320 TPD of solid waste fuel with a nominal HHV of 5,000 Btu/lb. This is equal to a maximum heat input of 275 MM/Btu/hour per unit, for a total heat input not to exceed 550 MMBtu/hr; producing up to 40 MW of electricity daily.

Units 1 and 2 mass burn waterwall combustion system incorporates the technology of German-based Martin GmbH. Waste is combusted at furnace temperatures exceeding 1,800 degrees Fahrenheit, and reduced to an inert ash residue. The air pollution control equipment at the facility consists of dry flue gas scrubbers, fabric filter baghouses, and mercury and nitrogen oxides abatement systems.

Unit 3 has a nominal capacity of 660 TPD of solid waste fuel with a nominal HHV of 5,000 Btu/lb. At the maximum heat input limit of 291.5 MMBtu/hour, Unit 3 produces up to 20 MW of electricity daily. This unit is a mass burn waterwall combustion system, manufactured by Riley Power Boiler with Martin GmbH Stoker. Unit 3 is equipped with the following air pollution controls: a spray dryer scrubber, a fabric filter baghouse, a dry activated carbon injection system, an optional flue gas recirculation (FGR) system and a selective non-catalytic reduction (SNCR) system. Auxiliary fuel is either propane or natural gas.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V permit renewal application received on April 28, 2005, this facility is a major source of hazardous air pollutants (HAP).

**Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-001	Municipal Waste Combustion Unit No. 1
-002	Municipal Waste Combustion Unit No. 2
-003	Lime Silo
-004	Ash Handling System
-006	Municipal Waste Combustion Unit No. 3

Unregulated Emissions Units and/or Activities

-005 Cooling Towers

*Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.*

### **Subsection C. Relevant Documents.**

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

#### **These documents are provided to the permittee for information purposes only:**

July 7, 1999, EPA Policy Memo re: CAM & post-1990 Large MWC Regulations  
Table 1-1, Summary of Air Pollutant Standards and Terms  
Table 2-1, Summary of Compliance Requirements  
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers  
Appendix H-1, Permit History  
Statement of Basis

#### **These documents are on file with the permitting authority:**

Appendix BD BACT Determination for PSD-FL-151C.  
U.S. EPA Motion to Remand the May 10, 2006 amendments on November 9, 2007.  
Application for a Title V Air Operation Permit Revision received on December 28, 2007 via Electronic Permit Submittal and Processing System (EPSAP).  
Request for additional information letter sent to the Applicant on February 12, 2008.  
Response from the Applicant received on April 2, 2008.  
Waiver of 90-day permit processing clock expiring on August 1, 2008.  
Waiver of 90-day permit processing clock expiring on September 1, 2008.

E-mail from U.S. EPA regarding Testing Schedule for Fugitive Ash and HCl Emissions dated January 22, 2009.  
Draft/Proposed Title V Air Operation Permit clerked on May 7, 2009.  
Draft/Proposed Permit posted on web site on May 7, 2009.  
Public Notice published on May 20, 2009.  
Proof of Publication of Public Notice received on June 5, 2009.

#### **Documents on file with USEPA:**

The Responsible Official has certified that the Risk Management Plan was submitted to the RMP Reporting Center.

### **Section II. Facility-wide Conditions.**

#### **The following conditions apply facility-wide:**

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.  
{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.; and, PSD-FL-151.]

**2.1. Odor Control.** No objectionable odors are allowed from this facility. The truck access doors to the unit shall remain closed except during normal working shifts when municipal solid waste (MSW) is being received at the storage pit area. To minimize odors at the unit, a negative pressure shall be maintained on the tipping floor and air from within the building will be used as combustion air. [Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-296.320(2), F.A.C.]

**3. General Particulate Emission Limiting Standards. General Visible Emissions Standard.**

Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rules 62-296.320(4)(b)1. and 4., F.A.C.]

**4. Prevention of Accidental Releases (Section 112(r) of CAA).**

**a.** As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.

**b.** As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.

**c.** The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.

Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to:

Department of Community Affairs  
Division of Emergency Management  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2100  
Telephone: 850/413-9921, Fax: 850/488-1739

Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center  
Post Office Box 1515  
Lanham-Seabrook, MD 20703-1515  
Telephone: 301/429-5018

Any required reports to be sent to the National Response Center, should be sent to:

National Response Center  
EPA Office of Solid Waste and Emergency Response  
USEPA (5305 W)  
401 M Street, SW  
Washington, D.C. 20460  
Telephone: 1/800/424-8802

Send the required annual registration fee using approved forms made payable to:  
Cashier

Department of Community Affairs  
State Emergency Response Commission  
2555 Shumard Oak Boulevard  
Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. **“Nothing was deemed necessary and ordered at this time.”** [Rule 62-296.320(1)(a), F.A.C.; and initial Title V permit application received June 17, 1996.]

8. Emissions of Unconfined Particulate Matter. Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-5, TITLE V CONDITIONS):

- a. All roads shall be adequately paved and vacuum swept, if appropriate, to keep free from visible dust;
- b. Speed limit signs shall be posted;
- c. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system as to minimize visible dust; and,
- d. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.

[Rule 62-296.320(4)(c)2., F.A.C.; and PSD-FL-151.]

8.1. Facility Fugitive (Unconfined) Emissions. Fugitive emissions at this facility shall be adequately controlled at all times. All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor or the refuse bunker while trucks are entering and leaving) shall be under negative air pressure. [Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-296.320(4)(c), F.A.C.]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one. [Rule 62-213.440, F.A.C.]

10. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C. [Rules 62-213.440(3) and 62-213.900, F.A.C.]



{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-5, TITLE V CONDITIONS)}

11. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's South District office.

Department of Environmental Protection  
South District Office  
2295 Victoria Avenue, Suite 364  
Fort Myers, Florida 33901-3381  
Telephone: 941/332-6975  
Fax: 941/332-6969

12. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Enforcement Branch  
Air Enforcement Section  
61 Forsyth Street  
Atlanta, Georgia 30303-8960  
Telephone: 404/562-9155; Fax: 404/562-9163

13. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

### Section III. Emissions Unit(s) and Conditions.

#### Subsection A. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-001	Municipal Waste Combustion Unit No. 1
-002	Municipal Waste Combustion Unit No. 2

The two Municipal Waste Combustor (MWC) emissions units are identical in configuration, and each has a nameplate rating of 275 MMBtu/hr. Distral Termica manufactured both units. The serial numbers are A2900 and A2901. Emissions are controlled by a dry scrubber, fabric filter baghouse, and mercury and nitrogen oxides (SNCR) abatement systems. Using lime slurry, the scrubber neutralizes any acid-forming gases, such as sulfur oxides and hydrogen chloride. The baghouse captures the particulate matter. Captured dry ash particles fall into hoppers and are transported by an enclosed conveyor system to the bottom ash discharger where they are wetted to prevent dust, and mixed with the bottom ash. Activated carbon is injected into the flue gases prior to the baghouse to control mercury emissions. Stack height is 275 feet. The emissions units' initial startup date was in August of 1994. The facility owns and operates continuous emissions monitors (CEMS) for the following pollutants: carbon monoxide, oxygen, nitrogen oxides, opacity, and sulfur dioxide. Any exceedances are reported on a quarterly basis to FDEP.

#### Compliance Assurance Monitoring (CAM) Applicability

Via earlier permitting action, the Department revised the facility's PSD permit to incorporate the 40 CFR 60 Subpart Cb limits for Units 1 and 2. Because emissions limits for the following pollutants were taken directly from Subpart Cb, CAM is not applicable for the control devices for cadmium (Cd).

The Title V air operation permit limits sulfur dioxide (SO<sub>2</sub>) emissions and carbon monoxide (CO) emissions under both Subpart Cb and PSD-FL-151B. However, because the facility does not use a control device to achieve compliance with the emission limitation for carbon monoxide, the CAM rule does not apply to that pollutant. For sulfur dioxide, the Subpart Cb requirements are more restrictive than the PSD permit requirements, and thus the facility is exempt from CAM requirements for sulfur dioxide.

The Title V air operation permit also limits volatile organic compounds (VOCs) and ammonia (NH<sub>3</sub>) emissions under PSD-FL-151B. However, since the facility does not use a control device to achieve compliance with the emission limitations for these pollutants, the CAM rule does not apply.

The Title V permit limits dioxin/furan (PCDD/PCDF) emissions under Subpart Cb and PSD-FL-151B. The PSD permit contains emission limits for fluoride (F), beryllium (Be), and sulfuric acid mist (SAM) for the units. The Applicant provided justification that demonstrated that the uncontrolled potential to emit (PTE) dioxin/furan is less than ten tons per year, the PTE for fluoride is less than ten tons per year, the PTE for beryllium is also less than ten tons per year, and the PTE for sulfuric acid mist is less than 100 tons per year. Thus, CAM does not apply to the control devices for these pollutants.

The Title V permit limits mercury (Hg) emissions under Rule 62-496.416, F.A.C. and PSD-FL-151B, and arsenic (As) emissions under PSD-FL-151B. However, because the pre-control emission estimates are below the ten ton threshold, the CAM rule does not apply in these cases.

The Applicant demonstrated that the particulate matter (PM) limit in the PSD permit (0.010 grains/dscf) is equivalent to the federal limit for PM in 40 CFR 60.52b (Subpart Eb) (24 mg/dscm). This Subpart Eb

limit is more stringent than the corresponding Subpart Cb limit (27 mg/dscm). The PSD permit includes two additional limits for PM (5.34 lb/hr and 21.3 ton/yr) that were also based on the Subpart Eb limit. Although the facility is not regulated under Subpart Eb, it must meet the same PM limitation as a Subpart Eb facility. The Applicant also noted that the hydrogen chloride (HCl) limit in the PSD permit (25 parts per million by volume) is identical to the federal HCl limit in 40 CFR 60.52b (Subpart Eb). Thus, the facility is required to comply with a limitation that is equal to the Eb standard for HCl. Therefore, since the Subpart Eb limitations and associated monitoring were presumed to be adequate when they were promulgated in 1995, it is the Department's position that PM and HCl are exempt from CAM pursuant to 40 CFR 64.2(b)(1) that states:

*(b) Exemptions – (1) Exempt emissions units or standards. The requirements of this part shall not apply to any of the following emissions limitations or standards:*

*(i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.*

The Applicant demonstrated that the PSD permit limits for lead (Pb) are less stringent than the corresponding limits based on Subpart Cb. Thus, the facility is exempt from CAM for this pollutant. (Note that the required Subpart Cb emission limit for lead (0.44 mg/dscm) was added to the language of Specific Condition **A.26.**)

Since the Applicant has indicated that the existing continuous emissions monitoring system (CEMS) will be used to demonstrate compliance with the nitrogen oxides (NO<sub>x</sub>) permit limits, the facility is exempt from CAM for this pollutant.

{Permitting note(s): These emissions units are regulated under NSPS - 40 CFR 60, Subpart Cb, Emission Guidelines (EG) and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference in Rule 62-204.800(9)(b), F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD)(Permit No. PSD-FL-151); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination.}

**The following specific conditions apply to the emissions unit(s) listed above:**

Emission Guidelines Requirements

{Permitting note(s): Some requirements of 40 CFR 60, Subpart Cb, are contained in 40 CFR 60, Subpart Eb.}

**A.0.1. NSPS Requirements - Subpart A.** The affected emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions including:

40 CFR 60.7, Notification and Recordkeeping

40 CFR 60.8, Performance Tests

40 CFR 60.11, Compliance with Standards and Maintenance Requirements

40 CFR 60.12, Circumvention

40 CFR 60.13, Monitoring Requirements

40 CFR 60.19, General Notification and Reporting requirements adopted by reference in Rule 62-

204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR

60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40

CFR 60.16.

These emissions units shall comply with Appendix 40 CFR 60 Subpart A attached to this permit. [Rule 62-204.800(8)(c), (d) & (e), F.A.C.]

**A.0.2. Emission Guidelines, 40 CFR 60 Subpart Cb.** The affected emissions units shall comply with all applicable provisions of the 40 CFR 60, Subpart Cb-Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, which are incorporated within this revision. {Note: exceptions were made in Florida's adoption of 40 CFR 60, Subpart Cb.} [Rule 62-204.800(9)(b), F.A.C.]

**A.0.3. Compliance Deadline.** The owner or operator shall comply with the May 10, 2006, federal amendments to 40 CFR 60, Subpart Cb as incorporated into this permit no later than April 28, 2009 {2 years from approval of state plan}. [Rule 62-204.800, F.A.C.]

**A.0.4.** Most of the current standards and limits contained in Permit No. 0710119-004-AV and from the PSD-FL-151 permit (BACT) remain more stringent than the 40 CFR 60 Subpart Cb, including the May 10, 2006 federal amendments. Where multiple applicable requirements exist, the more stringent requirement guarantees compliance with the less stringent limit. The May 10, 2006 amendments do change some of the emission standards and limitations currently in effect for Units 1 and 2. Three (3) pollutant limits are lowered under the amendments: Hg, Cd and Pb. This Title V air operation permit revision contains each lower limit with the compliance deadline of April 28, 2009. [Rules 62-204.800 and 62-213.440(1), F.A.C.]

## **General**

**A.1. Definitions.** For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee. [40 CFR 60.2; and, Rule 62-204.800(7)(a), F.A.C.]

**A.2. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere. [40 CFR 60.12]

**A.3.** The combustor boilers shall have a metal nameplate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, and rated capacity. [PSD-FL-151.]

**A.4.** Combustion efficiency shall be calculated by:  $\%CE = (1/(1+(CO/CO_2))) \times 100$ , and shall be at least 99.5% for an 8 hour average. [PSD-FL-151.]

**A.5.** A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Failures that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions. [PSD-FL-151.]

## **Essential Potential to Emit (PTE) Parameters**

### **A.6. Capacity.**

(a) Each of the MWCs have a design rated capacity of 660 tons of municipal solid waste (MSW) per day, and 275 MMBtu heat input per hour, and 186,200 lbs/hour of steam based on a heating value of 5,000 Btu/lb of MSW.

(b) The procedures specified in paragraph (1), below, shall be used for calculating municipal waste combustor unit capacity as defined under 40 CFR 60.51b.

(1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (i) and (ii) as applicable.

(i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.

(ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.

[40 CFR 60.31b and 40 CFR 60.58b(j); Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and PSD-FL-151]

**A.7. Emissions Unit Operating Rate Limitation After Testing.** See Specific Condition A.62. [Rule 62-297.310(2), F.A.C.]

**A.8. Maximum Demonstrated Municipal Waste Combustor Unit Load.** Maximum demonstrated municipal waste combustor unit load (as determined in Specific Condition A.6.) means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in Specific Condition A.32. [40 CFR 60.34b(b) and 40 CFR 60.51b.]

**A.9. Maximum Demonstrated Particulate Matter Control Device Temperature.** Maximum demonstrated particulate matter control device temperature means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in Specific Condition A.32. [40 CFR 60.34b(b) and 40 CFR 60.51b.]

### **A.10. Methods of Operation.**

**A.10.1. Allowable Fuels.** The only fuels allowed to be burned in the MWC units are solid wastes allowed by this permit, and natural gas and propane as auxiliary fuels. Other wastes shall not be burned without written prior approval from the Department. Lee County shall minimize emissions of mercury through a battery collection program. Chromium compounds shall not be used as an additive in the cooling tower water.

The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995).

Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility shall not burn:

- (a) those materials that are prohibited by state or federal law;
- (b) those materials that are prohibited by this permit;
- (c) lead acid batteries;
- (d) hazardous waste;
- (e) nuclear waste;
- (f) radioactive waste;
- (g) sewage sludge;
- (h) explosives.
- (i) beryllium-containing waste, as defined in 40 CFR 61, Subpart C.

Further, the facility shall not knowingly burn:

- (j) nickel-cadmium batteries pursuant to Section 403.7192(3);
- (k) mercury containing devices and lamps pursuant to Sections 403.7186(2) & (3);
- (l) untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from other similar generators (or sources);
- (m) segregated loads of biological waste.

{Permitting Note: See the attached Appendix BW, Biomedical Waste Definitions, for definitions of what constitutes biomedical waste.}

The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

- (a) well mixed with MSW in the refuse pit; or
- (b) alternately charged with MSW in the hopper.

The facility operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to percentage weight limitations, below. For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.

To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:

- (a) comply with good combustion operating practices in accordance with 40 CFR 60.53b;
- (b) install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
- (c) record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas or propane may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:

- (a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- (b) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
- (c) Wood pallets, clean wood, and land clearing debris;
- (d) Packaging materials and containers;
- (e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
- (f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- (g) The predominantly combustible fraction of sorted construction and demolition debris. Sorting of mixed construction and demolition debris at the facility shall occur on the tipping floor or at another location approved by the Department.

Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel, except as provided in the following sentence. Subsequent to an initial test burn scheduled to allow Department representatives to observe, while firing 5% (by weight) tires at each of the combustion units while operating each unit at capacity that demonstrates via the CEMS that each unit can comply with the emission limits for pollutants monitored by the CEMS while firing 5% (by weight) tires, this quantity limitation shall rise from 3% to 5%. Compliance with this limitation shall be determined on a calendar monthly basis.

Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar monthly basis.

- (a) Unsorted mixtures of construction and demolition debris, or that fraction of sorted construction and demolition debris that is predominantly non-combustible. Non-combustible construction and demolition debris shall include concrete, metals, gypsum products, plaster, rock, brick, and masonry.
- (b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (c) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.

- (d) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
- (e) Waste materials that:
  - (i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
  - (ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
- (f) Waste materials that contain oil from:
  - (i) the routine cleanup of industrial or commercial establishments and machinery; or
  - (ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (g) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).

{Permitting Note: Waste materials specifically authorized in paragraphs (a) – (g), above, do not require Department approval.}

- (h) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of this condition:

Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of this condition, which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% or 5% limitation, whichever is applicable.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rules 62-4.070(3), 62-213.410 & 62-213.440, F.A.C.; PSD-FL-151; and, request of the applicant.]

**A.10.2. Auxiliary Fuel Burners.** These devices shall be used at startup during the introduction of MSW fuel until design furnace gas temperature is achieved. They shall be fueled only with natural gas or propane. [Rules 62-4.070(3), 62-4.160(2), and 62-210.200, F.A.C.; and, PSD-FL-151.]



**A.10.3. Start-up and Shutdown Procedures.** During start-up and shut-down, the auxiliary burners shall be fired as needed to ensure proper combustion of wastes consistent with good operating practices as specified in 40 CFR 60.53b. [PSD-FL-151A.]

**A.11. Hours of Operation.** These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-151.]

### **Operating Practices & Requirements**

**A.12.** No owner or operator of an affected facility shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in Specific Condition **A.6.**, except as specified below. The averaging time is specified in Specific Condition **A.14.**

- (1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no municipal waste combustor unit load limit is applicable if the provisions of paragraph (b)(2) of this section are met.
- (2) The municipal waste combustor unit load limit may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor unit load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver. [40 CFR 60.34b(b) and 40 CFR 60.53b(b)]

**A.13.** No owner or operator of an affected facility shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17°C above the maximum demonstrated particulate matter control device temperature as defined in Specific Condition **A.9.**, except as specified below. The averaging time is specified in Specific Condition **A.14.** These requirements apply to each particulate matter control device utilized at the affected facility.

- (1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no particulate matter control device temperature limitations are applicable if the provisions of paragraph (b)(2) of this section are met.
- (2) The particulate matter control device temperature limits may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continue to apply, and remain enforceable, until and unless the Administrator grants the waiver. [40 CFR 60.34b(b) and 40 CFR 60.53b(c).]

**A.14. Operating Requirements.** The procedures specified in paragraphs (1) through (12) shall be used for determining compliance with the operating requirements under 40 CFR 60.53b.

- (1) Compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary water wall municipal waste combustors and refuse-derived fuel stokers.
- (2) For affected mass burn rotary water wall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 24-hour daily arithmetic average.
- (3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet

and record the output of the system and shall follow the procedures and methods specified in paragraphs(i) through(iii).

- (i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of 40 CFR 60.
  - (ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of 40 CFR 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B). For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.
    - (A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or ASME PTC-19-10-1981—Part 10 (incorporated by reference, see 40 CFR 60.17 of subpart A of this part), as applicable shall be used.
  - (iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
- (4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (1) and (2) shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.
- (5) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- (6) The procedures specified in paragraphs (i) through (v) shall be used to determine compliance with load level requirements under 40 CFR 60.53b(b).
- (i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter; measure steam (or feed water) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feed water) flow shall be calculated in 4-hour block arithmetic averages.
  - (ii) The method included in the “American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1-1964 (R1991)” section 4 (incorporated by reference, see 40 CFR 60.17) shall be used for calculating the steam (or feed water) flow required under paragraph (6)(i). The recommendations in “American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971),” chapter 4 (incorporated by reference-see 40 CFR 60.17) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (iii).
  - (iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
  - (iv) All signal conversion elements associated with steam (or feed water flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.

(7) To determine compliance with the maximum particulate matter control device temperature requirements under 40 CFR 60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.

(8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

(9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

(10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs(i) and(ii) for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under 40 CFR 60.58b(i) even if the minimum data requirements of paragraph (10) are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the EPA or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.

(12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.

[40 CFR 60.38b and 40 CFR 60.58b(i).]

**A.15. Operating procedures.** The owner or operator shall maintain a manual that identifies and describes best operational practices that will be used during periods of startup, shut down and malfunction at this facility. [PSD-FL-151B.]

### **Operator Training & Certification**

{Permitting note: The State 111(d) plan was approved by U.S. EPA on November 13, 1997. Municipal Waste Combustion Unit Nos. 1 and 2 initial startup date was in August of 1994.}

#### **A.16. Standards for municipal waste combustor operator training and certification.**

(a) No later than the date 6 months after the date of startup of an affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference - see 40 CFR 60.17 of Subpart A)], or a State certification program.

(b) No later than the date 6 months after the date of startup of an affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later, each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference - see 40 CFR 60.17 of Subpart A)] or a State certification program.

(c) No owner or operator of an affected facility shall allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in paragraph (b), a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in paragraph (b).

(1) The requirement specified in paragraph (c) shall take effect 6 months after the date of startup of the affected facility or 12 months after State plan approval [40 CFR 60.39b(c)(4)(ii)], whichever is later.

(2) If both the certified chief facility operator and certified shift supervisor are unavailable, a provisionally certified control room operator on site at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, the owner or operator of the affected facility must meet one of three criteria:

(i) When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.

(ii) When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator. However, the owner or operator of the affected facility must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under 40 CFR 60.59b(g)(5).

(iii) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval by the Administrator. However, the owner or operator of the affected facility must take two actions:

- (A) Notify the Administrator in writing. In the notice, state what caused the absence and what actions are being taken by the owner or operator of the facility to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.
- (B) Submit a status report and corrective action summary to the Administrator every four weeks following the initial notification. If the Administrator provides notice that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustion unit operation may continue.
- (3) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator for up to six months before taking the ASME QRO certification exam.
- (d) All chief facility operators, shift supervisors, and control room operators at affected facilities must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility, or by 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)], whichever is later.
- (e) The owner or operator of an affected facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraph (e)(1) through (e)(11).
- (1) A summary of the applicable standards;
  - (2) A description of basic combustion theory applicable to a municipal waste combustor unit;
  - (3) Procedures for receiving, handling, and feeding municipal solid waste;
  - (4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
  - (5) Procedures for maintaining proper combustion air supply levels;
  - (6) Procedures for operating the municipal waste combustor unit within the standards established;
  - (7) Procedures for responding to periodic upset or off-specification conditions;
  - (8) Procedures for minimizing particulate matter carryover;
  - (9) Procedures for handling ash;
  - (10) Procedures for monitoring municipal waste combustor unit emissions; and
  - (11) Reporting and recordkeeping procedures.
- (f) The owner or operator of an affected facility shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
- (1) Each person specified in paragraph (f) shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii), whichever is later.
    - (i) The date 6 months after the date of startup of the affected facility;
    - (ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
    - (iii) 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)].
  - (2) Annually, following the initial review required by paragraph (f)(1).
- (g) The operating manual required by paragraph (e) shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f). The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

(3) A list of all certified personnel shall be submitted to the South District Office. The Permittee/Operator shall inform the District office of any planned training sessions so that Department staff may attend any such training sessions related to operation and maintenance of air pollution control devices.

[40 CFR 60.35b, 40 CFR 60.39b(c)(4)(ii) & (iii), and 40 CFR 60.54b; and, PSD-FL-151.]

**A.17.** The requirement specified in 40 CFR 60.54b(d) does not apply to chief operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval. [40 CFR 60.39b(c)(4)(iii)(A).]

**A.18.** The owner or operator of a designated facility may request that the EPA Administrator waive the requirement specified in 40 CFR 60.54b(d) for chief facility operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the initial date of State plan approval. [40 CFR 60.39b(c)(4)(iii)(B).]

**A.19.** The initial training requirements specified in 40 CFR 60.54b(f)(1) shall be completed no later than the date specified in (1), (2), or (3), whichever is later.

(1) The date six (6) months after the date of startup of the affected facility;

(2) Twelve (12) months after State plan approval; or

(3) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.

[40 CFR 60.39b(c)(4)(iii)(C).]

### **Emission Limitations & Standards**

{Permitting Note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions A.21.-A.37. are based on the specified averaging time of the applicable test method.}

**A.20.** For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions for the pollutants CO, VOC, F, NH<sub>3</sub>, SO<sub>2</sub>, NO<sub>x</sub>, Pb, Be, Hg, dioxins and furans, and visible emissions. The Department shall allow the permittee reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [PSD-FL-151.]

### **Particulate Matter**

**A.21.** The emission limit for PM/PM<sub>10</sub> contained in the gases discharged to the atmosphere is 0.010 grains/dry standard cubic foot, 5.34 lbs/hr per unit, and 21.3 tons/year per unit, corrected to 7 percent oxygen. [PSD-FL-151.]

### **Visible Emissions**

**A.22.** The emission limit for opacity exhibited by the gases discharged to the atmosphere is 10 percent (6-minute average). [40 CFR 60.33b(a)(1)(iii).]

### **Cadmium**

**A.23.a.** Before April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [40 CFR 60.33b(a)(2)(i).]

**A.23.b.** On and after April 28, 2009, the emission limit for cadmium contained in the gases discharged to the atmosphere is 0.035 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [40 CFR 60.33b(a)(2)(i).]

### **Mercury**

**A.24.a.** Before April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere is 0.070 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. [40 CFR 60.33b(a)(3); and, Rule 62-296.416(3)(a)1., F.A.C.]

**A.24.b.** On and after April 28, 2009, the emission limit for mercury contained in the gases discharged to the atmosphere is 0.050 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent. [40 CFR 60.33b(a)(3); and, Rule 62-296.416(3)(a)1., F.A.C.]  
{For informational purposes, equivalent to 0.0271 lbs/hr and 0.118 TPY at 100% capacity (72,039 dscfm).}

**A.25.** Flue gas emissions from each unit shall not exceed 0.000138 lb/MMBtu, 0.0379 lbs/hour per unit, and 0.166 tons/year per unit. [PSD-FL-151.]

### **Lead**

**A.26.a.** Before April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere is 0.440 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [40 CFR 60.33b(a)(4).]

**A.26.b.** On and after April 28, 2009, the emission limit for lead contained in the gases discharged to the atmosphere is 0.400 milligrams per dry standard cubic meter, corrected to 7 percent oxygen. [40 CFR 60.33b(a)(4).]

A.26.c. In no case shall lead emissions exceed 0.00060 lbs/MMBtu, 0.165 lbs/hour per unit, and 0.66 tons/year per unit. [PSD-FL-151.]

### **Fluoride**

A.27. Flue gas emissions from each unit shall not exceed 5.0 parts per million, by volume, corrected to 7 percent oxygen. In no case shall emissions exceed 0.0035 lb/MMBtu, 0.96 lbs/hour per unit, and 3.8 tons/year per unit. [PSD-FL-151.]

### **Beryllium**

A.28. Flue gas emissions from each unit shall not exceed  $1.35 \times 10^{-7}$  lb/MMBtu heat input,  $3.70 \times 10^{-5}$  lbs/hour per unit, and  $1.47 \times 10^{-4}$  tons/year per unit. [PSD-FL-151.]

### **Volatile Organic Compounds**

A.29. Flue gas emissions from each unit shall not exceed 37 parts per million, by volume, corrected to 7 percent oxygen. In no case shall emissions exceed 0.021lb/MMBtu, 5.80 lbs/hour per unit, and 23 tons/year per unit. [PSD-FL-151.]

### **Sulfur Dioxide**

A.30. The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere is 29 parts per million, by volume, or 20 percent of the potential sulfur dioxide emission concentration (80-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. Compliance with this emission limit is based on a 24-hour daily geometric mean. [40 CFR 60.33b(b)(3)(i); and PSD-FL-151.]

### **Hydrogen Chloride**

A.31. The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere is 25 parts per million, by volume, or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. [40 CFR 60.33b(b)(3)(ii); and PSD-FL-151.]

### **Dioxins/Furans**

A.32. The emission limit for dioxins/furans contained in the gases discharged to the atmosphere that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen. In no case shall emissions exceed  $2.54 \times 10^{-8}$  lbs/MMBtu heat input,  $7.0 \times 10^{-6}$  lbs/hour per unit, and  $2.80 \times 10^{-5}$  tons/year per unit. [40 CFR 60.33b(c)(1)(ii); and PSD-FL-151.]

### **Nitrogen Oxides**

A.33. The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere is 180 parts per million, by volume, corrected to 7 percent oxygen, dry basis. Compliance with this emission limit is based on a 24 hour daily block average (midnight to midnight). In no case shall  $\text{NO}_x$  emissions



exceed 0.290 lb/MMBtu, 80 lbs/hour per unit, and 320 tons/year per unit. [40 CFR 60.33b(d); and PSD-FL-151.]

### **Carbon Monoxide**

**A.34.** The emission limit for carbon monoxide contained in the gases discharged to the atmosphere is 100 parts per million, by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis. Calculated as an arithmetic average. Averaging time is a 4-hour block average, beginning at midnight. In no case shall CO emissions exceed 0.10 lb/MMBtu, 27.2 lbs/hour per unit, and 108 tons/year per unit. [40 CFR 60.34b(a); and, PSD-FL-151.]

### **Sulfuric Acid Mist**

**A.35.** In no case shall H<sub>2</sub>SO<sub>4</sub> emissions exceed 0.036 lbs/MMBtu, 9.85 lbs/hour per unit, and 39.3 tons/year per unit. [PSD-FL-151.]

### **Arsenic**

**A.36.** In no case shall arsenic emissions exceed  $9.10 \times 10^{-6}$  lbs/MMBtu,  $2.50 \times 10^{-3}$  lbs/hour per unit, and 0.01 tons/year per unit. [PSD-FL-151.]

### **Ammonia**

**A.37.** In no case shall ammonia slip from exhaust gases exceed 50 parts per million, by volume. [PSD-FL-151.]

**A.38.** <intentionally left blank>

### **Excess Emissions**

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

**A.39.** The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c)]

**A.40.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. [40 CFR 60.11(d).]

**A.41.0 Startup, Shutdown and Malfunction.** Except as provided by 40 CFR 60.56b, the standards under 40 CFR 60, Subpart Cb, as incorporated in Rule 62-204.800(8)(b), F.A.C., apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited

to 3 hours per occurrence, except as provided in 40 CFR 60.58b(a)(1)(iii). During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).

(i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

(ii) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

[40 CFR 60.38b and 40 CFR 60.58b(a)(1)(i) & (ii).]

#### **A.41.1. Startup, Shutdown and Malfunction.**

(iii) For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control ( e.g., boiler waterwall tube failure) or a loss of combustion air control ( e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).

[40 CFR 60.38b and 40 CFR 60.58b(a)(1)(iii).]

**A.42.** Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. The Department authorizes three hours in any 24-hour period for this emissions unit. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. [Rule 62-210.700(1), F.A.C.; and, request of the applicant.]

**A.43.** Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.; and, PSD-FL-151.]

### **Test Methods & Procedures**

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**A.44.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard. A test protocol shall be submitted for approval to the Department's South Florida District Office and to the Bureau of Air Regulation at least 30 (thirty) days prior to testing. This protocol shall

include details on how the weight percentage of used tires in the MSW stream will be accounted for during the compliance testing. [40 CFR 60.8(c); and, PSD-FL-151.]

**A.45.** The weight of MSW being fed to each combustor during the stack test shall be continuously monitored and recorded by a weighing device which is properly calibrated. Stack tests shall be conducted upstream and downstream of the applicable control device for SO<sub>2</sub>, Hg and HCl. Soot blowers shall be operated in a mode consistent with the normal cleaning requirements of the system during the compliance testing. [PSD-FL-151.]

### **Particulate Matter & Opacity**

**A.46.** Except as provided in paragraph (c)(10) of this section, the procedures and test methods specified in paragraphs (1) through (11) shall be used to determine compliance with the emission limits for particulate matter and opacity.

- (1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.
- (2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable shall be used for gas analysis.
- (3) The EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.
- (4) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (6).
- (5) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
- (6) In accordance with paragraphs (7) and (11), EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under 40 CFR 60.11(e). At least one one-hour run to be conducted simultaneously with particulate testing for the emissions from the dry scrubber/baghouse.
- (7) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8.
- (8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (8)(i) through (8)(iv).
  - (i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
  - (ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.
  - (iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of 40 CFR 60.
  - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.
- (9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for particulate matter on a calendar year basis (no less than 9 calendar months and no

more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(10) <intentionally left blank>

(11) Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 for an affected, the owner or operator shall conduct a performance test for opacity on an annual basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in paragraph (c)(6) of this section.

(12) The EPA Reference Method 201 or 201A shall be used and supplemented with Method 5 to demonstrate compliance with PM<sub>10</sub> emissions.

[40 CFR 60.38b and 40 CFR 60.58b(c); and PSD-FL-151.]

### **Cadmium, Lead & Mercury**

**A.47.** The procedures and test methods specified in paragraphs (1) and (2) shall be used to determine compliance with the emission limits for cadmium, lead, and mercury.

(1) The procedures and test methods specified in paragraphs (1)(i) through (1)(ix) shall be used to determine compliance with the emission limits for cadmium and lead.

(i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.

(iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.

(iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (1)(iii).

(v) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).

(vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.

(vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(2) The procedures and test methods specified in paragraphs (2)(i) through (2)(xi) shall be used to determine compliance with the mercury emission limit.

(i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.

(iii) The EPA Reference Methods 29 or as an alternative ASTM D6784-02 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.

- (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 or as an alternative ASTM D6784-02 test run for mercury required under paragraph (2)(iii).
- (v) The percent reduction in the potential mercury emissions (%PH<sub>g</sub>) is computed using equation 1:

$$[\%P_{HG}] = \left[ \frac{E_i - E_o}{E_i} \right] \times 100 \quad (\text{equation 1})$$

where:

%PH<sub>g</sub> = percent reduction of the potential mercury emissions achieved.

E<sub>i</sub> = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

- (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
- (vii) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
- (viii) The owner or operator of an affected facility shall conduct an initial performance test for mercury emissions as required under 40 CFR 60.8.
- (ix) Following the date that the initial performance test for mercury is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).
- (xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating carbon usage. See Specific Condition A.103.

[40 CFR 60.38b and 40 CFR 60.58b(d); and, PSD-FL-151 & 151B.]

**A.48. Mercury Emissions Test Method and Procedures.** All mercury emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.

1. The test method for mercury shall be EPA Method 29 adopted in Rule 62-297, F.A.C. EPA
2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.
  - (4) Flue Gas Temperature Standard. Waste-to-energy facilities choosing to control mercury emissions through the use of post-combustion control equipment designed to remove mercury from flue gases shall comply with the flue gas temperature standard of Rule 62-296.416(4)(a), F.A.C.
    - (a) Temperature Standard. The flue gas temperature standard set forth in 40 CFR 60.53b(c), incorporated by reference in Rule 62-2-4.800, F.A.C., shall apply.
    - (b) Temperature Monitoring. The temperature monitoring requirements set forth in 40 CFR 60.58b(i), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.

(5) Carbon Usage Rate. The carbon injection rate operating standard and monitoring requirements set forth in 40 CFR 60.58b(m), incorporated by reference in Rule 62-204.800, F.A.C.; shall apply.

See Specific Condition **A.103**.

[Rule 62-296.416(3)(d), F.A.C.]

### **Sulfur Dioxide**

**A.49.** The procedures and test methods specified in paragraphs (1) through (14) shall be used for determining compliance with the sulfur dioxide emission.

(1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.

(2) The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.

(3) The owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(4) The owner or operator of an affected facility shall conduct an initial performance test for sulfur dioxide emissions as required under 40 CFR 60.8. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (5) to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using EPA Reference Method 19, sections 4.3 and 5.4, as applicable.

(5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.

(6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 40 CFR 60.8, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

(7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (7)(i) and (7)(ii) for 90 percent of the operating hours per calendar quarter and 95 percent of the operating days per calendar year that the affected facility is combusting municipal solid waste.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(8) The 1-hour arithmetic averages required under paragraph (6) shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).

(9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (7) are not met.

(10) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.

(11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under 40 CFR 60.8.

(12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in 40 CFR 60 appendix B. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.

(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in 40 CFR 60 appendix B, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).

(A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ASME PTC-19-10-1981—Part 10, shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable shall be used.

(ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.

(13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.

(14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

[40 CFR 60.38b and 40 CFR 60.58b(e).]

### **Hydrogen Chloride**

**A.50.** The procedures and test methods specified in paragraphs (1) through (8) shall be used for determining compliance with the hydrogen chloride emission limit.

(1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time for Method 26 shall be 1 hour.

(2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 26 test run for hydrogen chloride required by paragraph (1).

(3) The percent reduction in potential hydrogen chloride emissions (% P<sub>HCl</sub>) is computed using equation 2:

$$\left[ \%P_{HCl} \right] = \left[ \frac{E_i - E_o}{E_i} \right] \times 100 \quad (\text{equation 2})$$

where:

%P<sub>HCl</sub>=percent reduction of the potential hydrogen chloride emissions achieved.

E<sub>i</sub>=potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub>=controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

(4) The owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(5) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.

(6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under 40 CFR 60.8.

(7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).

[40 CFR 60.38b and 40 CFR 60.58b(f).]

### **Dioxin/Furan**

**A.51.** The procedures and test methods specified in paragraphs (1) through (9) shall be used to determine compliance with the limits for dioxin/furan emissions.

(1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.

(2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.

(3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.

(i) The minimum sample time shall be 4 hours per test run.

(ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.

(4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (3), as required under 40 CFR 60.8.

(5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (3), according to one of the schedules specified in paragraphs (i) through (iii).

(i) For affected facilities, performance tests shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).

(ii) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling



facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (g)(5)(iii) of this section, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in paragraphs (g)(5)(ii)(A) through (g)(5)(ii)(D) of this section.

(A) Follow the testing schedule established in paragraph (g)(5)(iii) of this section. For example, each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence ( e.g. , unit 1, unit 2, unit 3, as applicable).

(B) Upon meeting the requirements in paragraph (g)(5)(iii) of this section for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in paragraph (m) of this section to similarly designed and equipped units on site.

(C) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (g)(5)(iii) of this section, the dioxin/furan and mercury emissions of the subsequent unit shall not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.

(D) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section and apply the carbon injection system operating parameters to similarly designed and equipped units on site shall follow the procedures specified in 40 CFR 60.59b(g)(4) for reporting.

(iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence ( e.g. , unit 1, unit 2, unit 3, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per calendar year. If any annual performance test indicates either a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter (total mass), performance tests shall thereafter be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass). {Note: The 7 is changed to 15 ng/dscm per Rule 62-204.800(9)(b)7.b., F.A.C.}

(6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (5)(iii) shall follow the procedures specified in 40 CFR 60.59b(g)(4) for reporting the selection of this schedule.

(7) The owner or operator of an affected facility where activated carbon is used shall follow the procedures specified in paragraph (m) of this section for measuring and calculating the carbon usage rate.

(8) The owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent

oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(9) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance. [40 CFR 60.38b and 40 CFR 60.58b(g) and Rule 62-204.800(9)(b)7.b., F.A.C.]

### **Nitrogen Oxides**

**A.52.** The procedures and test methods specified in paragraphs (1) through (12) shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under Sec. 60.52b(d).

(1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.

(2) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).

(3) The owner or operator of an affected facility subject to the nitrogen oxides limit shall conduct an initial performance test for nitrogen oxides as required under 40 CFR 60.8. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (4) for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.

(4) The owner or operator of an affected facility subject to the nitrogen oxides emission shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.

(5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under 40 CFR 60.8, compliance with the emission limit for nitrogen oxides shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.

(6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i) and (ii) for 90 percent of the operating hours per calendar quarter and for 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

(i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.

(7) The 1-hour arithmetic averages required by paragraph (5) shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).

(8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (6) are not met.

(9) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.

(10) The owner or operator of an affected facility shall operate the continuous emission monitoring system according to Performance Specification 2 in appendix B of 40 CFR 60 and shall follow the procedures and methods specified in paragraphs(i) and (ii).

(i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of 40 CFR 60, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs(A) and (B).

(A) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable shall be used.

(ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.

(11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.

(12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year the unit is operated and combusting municipal solid waste.

[40 CFR 60.38b and 40 CFR 60.58b(h).]

### **Fluoride**

A.53. EPA Method 13A or 13B shall be used to ensure compliance. [PSD-FL-151.]

### **Beryllium**

A.54. EPA Method 29 shall be used to ensure compliance. [PSD-FL-151B.]

### **Volatile Organic Compounds**

A.55. EPA Method 18 or 25A shall be used to ensure compliance. [PSD-FL-151.]

### **Carbon Monoxide**

A.56. EPA Method 10 shall be used to ensure compliance. [PSD-FL-151.]

### **Sulfuric Acid Mist**

A.57. EPA Method 8 shall be used to ensure compliance. [Rule 62-213.440, F.A.C.]

### **Arsenic**

A.58. EPA Method 29 shall be used to ensure compliance. [PSD-FL-151B.]

## Ammonia

**A.59.** EPA Method CTM-027 (Conditional Test Method) shall be used to ensure compliance. [Rule 62-213.440, F.A.C.]

**A.60.** <intentionally left blank>

**A.61. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]

**A.62. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]

**A.63. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

**A.64. Applicable Test Procedures.**

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet. (See Specific Condition A.46.)
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

**A.65. Required Stack Sampling Facilities**. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**A.66.0. Frequency of Compliance Tests**. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate; or
  - b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions, if there is an applicable standard;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, SIP approved.]

**A.66.1.** Compliance with the emission limitations of this permit shall be determined by annual emission testing, except that testing for arsenic, beryllium, fluoride, sulfuric acid mist, ammonia and VOC shall be performed prior to renewal of each operation permit. Testing of the MWC units for particulate matter shall be performed using three one-hour test runs so that two one-hour runs are conducted during normal operation and one one-hour run is conducted during soot blowing conditions. Compliance for visible emissions shall be determined in accordance with Rule 62-297.310(4)(a), F.A.C. [Rules 62-4.070(3), 62-297.310(4)(a), and 62-297.310(7)(a)3, F.A.C.; PSD-FL-151A; PSD-FL-151B; and, request of the applicant.]

### **Compliance With Standards & Maintenance Requirements**

**A.67.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard. [40 CFR 60.11(a).]

**A.68.** Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). [40 CFR 60.11(b).]

**A.69.** The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of EPA Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he or she shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator

to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which EPA Method 9 data indicates noncompliance, the EPA Method 9 data will be used to determine opacity compliance. [40 CFR 60.11(e)(5).]

### **Monitoring Requirements**

**A.70.** All baghouses, except for the lime silo dust collector and the baghouses for containing hydrated lime, soda ash, and activated charcoal for the facility's water treatment system, shall be equipped with pressure drop monitoring equipment. [PSD-FL-151A.]

**A.71.** Continuous emission monitors with recorders shall be installed, calibrated, maintained and operated subject to approval by the Department for the following pollutants: Carbon monoxide, oxygen, nitrogen oxide, opacity, and sulfur dioxide. [PSD-FL-151.]

**A.72.** For the purposes of 40 CFR 60.13, all continuous monitoring systems (CMS) required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987. [40 CFR 60.13(a).]

**A.73.** If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, Appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in Appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 60.8 and as described in 40 CFR 60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 60.8 is conducted.  
[40 CFR 60.13(c)(1).]

**A.74.** (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20

percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

[40 CFR 60.13(d)(1) and (2).]

**A.75.** Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. [40 CFR 60.13(e)(1) and (2).]

**A.76.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used. [40 CFR 60.13(f).]

**A.77.** When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems (CMS) on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system. [40 CFR 60.13(g).]

**A.78.** Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally



spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non-reduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity). [40 CFR 60.13(h).]

**A.79. Determination of Process Variables.**

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

**CEMS for Oxygen or Carbon Dioxide**

**A.80.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and record the output of the system and shall comply with the test procedures and test methods specified in paragraphs (1) through (8).

(1) The span value of the oxygen (or carbon dioxide) monitor shall be 25 percent oxygen (or carbon dioxide).

(2) The monitor shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.

(4) The monitor shall conform to Performance Specification 3 in appendix B of 40 CFR 60 except for section 2.3 (relative accuracy requirement).

(5) The quality assurance procedures of appendix F of 40 CFR 60 except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.

(6) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs(i) through(iv). This relationship may be reestablished during performance compliance tests.

(i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, 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.

(7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted to EPA as part of the initial performance test

report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test.

(8) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of this section, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.

[40 CFR 60.38b and 40 CFR 60.58b(b).]

### **Recordkeeping & Reporting Requirements**

**A.81.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice. [40 CFR 60.7(a)(4).]

**A.82.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative. [40 CFR 60.7(b).]

**A.83.** Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c).]

**A.84.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[40 CFR 60.7(d).]

{See attached Figure 1: Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance}

**A.85.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

- (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
- (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e).]

**A.86.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records. [40 CFR 60.7(f); and, Rule 62-213.440(1)(b)2.b., F.A.C.]

**A.87. Notification of Construction or Reconstruction.** The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit a notification of construction, which includes the information specified in paragraphs (1) through (4).

- (1) Intent to construct.
  - (2) Planned initial startup date.
  - (3) The types of fuels that the owner or operator plans to combust in the affected facility.
  - (4) The municipal waste combustor unit capacity and supporting capacity calculations prepared in accordance with 40 CFR 60.58b(j).
- [40 CFR 60.39b and 40 CFR 60.59b(b).]

**A.88.** The owner or operator of an affected facility subject to the standards under 40 CFR 60.53b, 60.54b, and 60.55b shall maintain records of the information specified in paragraphs (1) through (15), as applicable, for each affected facility for a period of at least 5 years.

- (1) The calendar date of each record.
- (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (i) and (ii).
  - (i) The measurements specified in paragraphs (A) through (D) shall be recorded and be available for submittal to the Administrator or review onsite by an EPA, State, or approved Local Air Program inspector.
    - (A) All 6-minute average opacity levels as specified under 40 CFR 60.58b(c).
    - (B) All 1-hour average sulfur dioxide emission concentrations as specified under 40 CFR 60.58b(e).
    - (C) All 1-hour average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).
    - (D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under 40 CFR 60.58b(i).
  - (ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (2)(ii)(A) through (2)(ii)(D) shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an EPA, State, or approved Local Air Program inspector.
    - (A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under 40 CFR 60.58b(e).
    - (B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).
    - (C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under 40 CFR 60.58b(i).
    - (D) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under 40 CFR 60.58b(i).

(3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (2)(ii)(A) through (2)(ii)(D), or the opacity levels recorded under paragraph (2)(i)(A) are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.

(4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (i) through (v).

(i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(i) during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.

(ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(ii) during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.

(iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under 40 CFR 60.58b(m)(3)(ii), with supporting calculations.

(iv) The total carbon usage for each calendar quarter estimated as specified by 40 CFR 60.58b(m)(3), with supporting calculations.

(v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).

(5) [Reserved.]

(6) Identification of the calendar dates and times (hours) for which valid hourly data specified in paragraphs (i) through (v) have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.

(i) Sulfur dioxide emissions data;

(ii) Nitrogen oxides emissions data;

(iii) Carbon monoxide emissions data;

(iv) Municipal waste combustor unit load data; and

(v) Particulate matter control device temperature data.

(7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data (large municipal waste combustors only), or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.

(8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under appendix F of this part, procedure 1.

(9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (i) and (ii) shall be recorded along with supporting calculations.

(i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.

(ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (9)(i), the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).

(10) <intentionally left blank>

(11) <intentionally left blank>

(12) The records specified in paragraphs (i) through (iv).

(i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American

Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.

(ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.

(iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by 40 CFR 60.54b(d) including documentation of training completion.

(iv) Records of when a certified operator is temporarily off site. Include two main items:

(A) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.

(B) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:

(1) Time of day that all certified persons are off site.

(2) The conditions that cause those people to be off site.

(3) The corrective actions taken by the owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.

(4) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.

(13) Records showing the names of persons who have completed a review of the operating manual as required by 40 CFR 60.54b(f) including the date of the initial review and subsequent annual reviews.

(14) For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for dioxin/furan emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken.

(15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (4)(v) are below the level(s) estimated during the performance tests as specified in 40 CFR 60.58b(m)(1)(i) and 40 CFR 60.58b(m)(1)(ii), with reasons for such occurrences and a description of corrective actions taken. [40 CFR 60.39b and 40 CFR 60.59b(d).]

**A.89.** The owner or operator of an affected facility shall submit the information specified in paragraphs (1) through (6) in the initial performance test report.

(1) The initial performance test data as recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D) for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.

(2) The test report documenting the initial performance test recorded under 40 CFR 60.59b(d)(9) for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.

- (3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.
- (4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under 40 CFR 60.59b(d)(9).
- (5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(i).
- (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(ii). [40 CFR 60.39b and 40 CFR 60.59b(f).]

**A.90.** Following the first year of municipal combustor operation, the owner or operator of an affected facility shall submit an annual report including the information specified in paragraphs (1) through (5), as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).

- (1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (i) through (v).
  - (i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under 40 CFR 60.59b(d)(9).
  - (ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D).
  - (iii) List the highest opacity level measured, based on the data recorded under 40 CFR 60.59b(d)(2)(i)(A).
  - (iv) Periods when valid data were not obtained as described in paragraphs (g)(1)(iv)(A) of this section.
    - (A) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or particulate matter control device temperature data were not obtained based on the data recorded under paragraph (d)(6) of this section.
  - (v) Periods when valid data were excluded from the calculation of average emission concentrations or parameters as described in paragraphs (g)(1)(v)(A) of this section.
    - (A) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
- (2) The summary of data reported under paragraph (1) shall also provide the types of data specified in paragraphs (1)(i) through (1)(vi) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.
- (3) The summary of data including the information specified in paragraphs (1) and (2) shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.
- (4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in 40 CFR 60.58b(g)(5)(iii) during the following calendar year and notification of intent to apply the

average carbon mass feed rate and associated carbon injection system operating parameter levels as established in §60.58b(m) to similarly designed and equipped units on site.

(5) Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.

[40 CFR 60.39b and 40 CFR 60.59b(g).]

**A.91.** The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs (1) through (5) for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (6).

(1) The semiannual report shall include information recorded under 40 CFR 60.59b(d)(3) for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

(2) For each date recorded as required by 40 CFR 60.59b(d)(3) and reported as required by paragraph (1), the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A), as applicable.

(3) If the test reports recorded under 40 CFR 60.59b(d)(9) document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.

(4) The semiannual report shall include the information recorded under 40 CFR 60.59b(d)(15) for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.

(5) For each operating date reported as required by paragraph (4), the semiannual report shall include the carbon feed rate data recorded under 40 CFR 60.59b(d)(4)(iii).

(6) Semiannual reports required by this condition shall be submitted according to the schedule specified in paragraphs (i) and (ii).

(i) If the data reported in accordance with paragraphs (1) through (5) were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.

(ii) If the data reported in accordance with paragraphs (1) through (5) were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.

[40 CFR 60.39b and 40 CFR 60.59b(h).]

**A.92.** All reports specified under 40 CFR 60.59b(a), (b), (c), (f), (g), (h), and (i) shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years. [40 CFR 60.39b and 40 CFR 60.59b(j)]

**A.93.** All records specified under 40 CFR 60.59b(d) and (e) shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator. [40 CFR 60.39b and 40 CFR 60.59b(k).]

**A.94.** If the owner or operator of an affected facility would prefer a different annual or semiannual date for submitting the periodic reports required by 40 CFR 60.59b(g), (h) and (i), then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in 40 CFR 60.19(c) of subpart A of this part. [40 CFR 60.39b and 40 CFR 60.59b(l).]



**A.95.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]

**A.96.** Submit to the Department a written report of emissions in excess of emission limiting for each calendar quarter. The nature and cause of the excess emissions shall be explained. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that no excess emissions occurred. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years. [Rule 62-213.440(1)(b)2.b., F.A.C.; and, PSD-FL-151.]

**A.97. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.

17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

**A.98.** Lee County Solid Waste Energy recovery Facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the conditions of this permit. This file shall include but not be limited to:

- (i) the data collected from in-stack monitoring requirements,
- (ii) the records on MSW input rate,
- (iii) the amount of propane gas burned per unit,
- (iv) the results of all source tests or performance tests,
- (v) the amount of ammonia, activated carbon, or other chemicals used for NO<sub>x</sub> and mercury control,
- (vi) calibration logs for all instruments,
- (vii) maintenance/repair logs for any worked performed which is subject to this permit.

All measurements, records, and other data required to be maintained by the facility shall be retained for at least five years following the date on which such measurements, records, or data are recorded and made available to the Department upon request. The permittee shall keep accurate records of MSW being fired to each combustor along with the weight percent of used tires in the waste stream being combusted on an estimated weekly basis for the entire life of this facility. The South District office of the Department and the Bureau of Air Regulation shall be notified at least 30 days prior to any compliance testing.

[Rule 62-213.440(1)(b)2.b., F.A.C.; and, PSD-FL-151.]

**A.99.** The Permittee shall submit to the Department's South Florida District Office and to the Bureau of Air Regulation within thirty (30) days after it becomes available, copies of technical data pertaining to the selected emissions control systems. These data should include, but not be limited to, guaranteed efficiency and emission rates, and major design parameters. [PSD-FL-151.]

### **Mercury Control Requirements**

**A.100.** The permittee must operate the pollution control equipment at the facility under procedures designed to minimize emissions of mercury and maximize the removal of mercury from the flue gas of the facility. An activated carbon injection system for mercury control approved by the Department shall be operated continuously whenever MSW is burned at the facility. The emissions of mercury from the facility shall not exceed the standard established in the conditions of this permit. [PSD-FL-151.]

**A.101.** The permittee shall determine through Department approved operational testing the feed rate for activated carbon injection which provides the most effective mercury removal over the normal operating regime for the facility while achieving the levels stated hereafter. Following determination of the feed

rate, the permittee shall not reduce it without specific written permission from the Department. [PSD-FL-151.]

**A.102.** If the Department proposes to reduce the mercury emission standard for the facility to a level below 70 ug/dscm at 7% O<sub>2</sub> or its equivalent, it shall proceed in accordance with the provisions of Section 403.516(1), Florida Statutes. [PSD-FL-151.]

### **Miscellaneous Requirements**

#### **Activated Carbon Injection**

**A.103.** The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit, or the dioxin/furan emission limits, or the dioxin/furan emission level specified in 40 CFR 60.58b(g)(5)(iii) shall follow the procedures specified in paragraphs (1) through (4).

(1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (i) and (ii).

(i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.

(ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.

(2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate ( e.g. , screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (m)(1)(i) and (m)(1)(ii) of this section, except as specified in paragraphs (m)(2)(i) and (m)(2)(ii) of this section.

(i) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (m)(2)(ii) of this section are met.

(ii) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

(3) The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (i) and (ii).

(i) The weight of carbon delivered to the plant.

(ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (1), and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

(4) Pneumatic injection pressure or other carbon injection system operational indicator shall be used to provide additional verification of proper carbon injection system operation. The operational indicator

shall provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate ( e.g. , continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate (e.g. , screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in section (e)(6) of the site-specific operating manual required under §60.54b(e) of this subpart. [40 CFR 60.38b and 40 CFR 60.58b(m).]

**A.104.** The height of the boiler exhaust stack shall not be less than 275 feet above grade or the height determined to be good engineering practice. [PSD-FL-151.]

**A.105. Acid Rain Part Application.** For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis. [Rule 62-214.320(1)(h), F.A.C.]

**Subsection B. This section addresses the following emissions unit.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-003	Lime Silo

This emissions unit is used to store lime at the facility. The silo was manufactured by Pittsburgh Tank Corporation. Emissions from the lime silo are controlled by a baghouse (fabric vent filter). Pebble size lime (CaO) is delivered to the plant via self-contained pneumatic truck trailers. The lime is unloaded from the truck trailer to the lime silo, which is above the lime preparation area. The silo is sized to hold enough lime to maintain several days' worth of lime at the maximum combustion rate of the boilers. The lime silo has one conical discharge.

Lime is used at the facility to make a lime slurry for use in the sulfur dioxide and acid neutralization process. The lime is used in a sufficient quantity to maintain continuous flue gas treatment in the spray dryer absorber.

Opacity is regulated under permit PSD-FL-151B. Since there is no major source threshold defined for opacity in 40 CFR 60, the CAM rule does not apply to the fabric vent filter.

{Permitting Note: The consumption of lime varies based on combustion unit load and component variables in the solid waste materials. The silo can hold 60 tons of lime. The lime silo baghouse is only operational during silo filling operations.}

**Essential Potential to Emit (PTE) Parameters**

**B.1. Hours of Operation.** This emissions unit are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and PSD-FL-151.]

**Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging time for Specific Condition B.3. is based on the specified averaging time of the applicable test method.}

**B.2. Visible Emissions.** There shall be no visible emissions during operations of the lime silo (i.e., less than 5% opacity). [PSD-FL-151.]

**Test Methods and Procedures**

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**B.3. Visible Emissions.** Compliance with the visible emission limitation shall be determined using EPA Method 9. The test shall consist of at least one truck unloading into the lime silo (from start to finish). Tests shall be conducted annually. At least one 30-minute run to be conducted for the lime silo baghouse while a truck is unloading lime into the lime silo. If the unloading is completed before 30 minutes

duration, the duration of unloading shall be sufficient to meet this requirement, provided it exceeds 12 minutes. [PSD-FL-151 and PSD-FL-151B.]

**B.4. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]

**B.5. Applicable Test Procedures.**

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
- b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

**B.6. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**B.7. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.

[Rule 62-297.310(7), F.A.C.; and, SIP approved.]

**B.8. Determination of Process Variables.**

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

**Recordkeeping and Reporting Requirements**

**B.9.** The Department's South District Office and the Bureau of Air Regulation shall be notified in writing at least 30 days prior to any compliance testing. [PSD-FL-151.]

**B.10. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.



13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

**Subsection C. This section addresses the following emissions unit.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-004	Ash Handling System

The facility operates an ash handling system. The system is comprised of conveyors, scalpers and a ferrous and non-ferrous removal system. The ash handling building system at this facility has a single emissions point at the ash building baghouse vent. The particulate matter (PM) emissions are controlled by a baghouse, which was manufactured by Beaumont Birch, Model No. CR-93103.

Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule does not apply to the baghouse.

{Permitting Note: This unit began initial operation on August 24, 1994. Stack height = 59 feet, exit diameter = 3.0 feet, exit temperature = 70 °F, volumetric flow rate = 26,290 acfm and 24,720dscfm.

**Essential Potential to Emit (PTE) Parameters**

**C.1. Hours of Operation.** These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-151.]

**Emission Limitations and Standards**

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions C.2.-C.3. are based on the specified averaging time of the applicable test method.}

**C.2. Visible Emissions.** In no case shall visible emissions from the ash handling building baghouse exceed 5% opacity. [PSD-FL-151.]

**C.2.1. Fugitive Ash Visible Emissions.**

(a) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A, no owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs (b) and (c). See Specific Condition **C.4.1**.

(b) The emission limit specified in paragraph (a) does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.

(c) The provisions of paragraph (a) do not apply during maintenance and repair of ash conveying systems.

[40 CFR 60.36b and 40 CFR 60.55b.]

**C.2.2.** The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. The ash handling facilities shall be enclosed. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system, or otherwise handled in a manner to minimize visible dust. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.

[Condition **C.1(d)**, Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-4.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b.]

**C.3. Particulate Matter.** In no case shall particulate matter emissions from the ash handling building baghouse exceed a limit of 0.010 grains/dscf. [PSD-FL-151.]

### **Test Methods and Procedures**

{Permitting note: Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

**C.4.** Compliance testing for particulate matter emissions from the ash handling building baghouse is waived, and an alternative standard of 5% opacity is imposed, pursuant to Rule 62-297.620(4), F.A.C. If the Department has reason to believe that the particulate weight emission standard is not being met, it shall require that compliance be demonstrated using EPA Method 5. Compliance testing for visible emissions from the ash handling building baghouse and the lime silo baghouse shall be conducted annually. At least one 30-minute run to be conducted for the ash handling building baghouse. The test method for visible emissions shall be DEP Method 9, incorporated in Chapter 62-297, F.A.C.

[Rules 62-4.070(3) and 62-297.620(4), F.A.C.; PSD-FL-151 and PSD-FL-151B; and, request of the applicant.]

**C.4.1. Fugitive Ash:** The procedures specified in paragraphs (1) through (4) shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b.

(1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.

(2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with 40 CFR 60.55b.

(3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under 40 CFR 60.8.

(4) Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under Sec. 60.8 for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).

[40 CFR 60.38b and 40 CFR 60.58b(k).]

**C.5. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process

variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

**C.6. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rules 62-297.310(2) & (2)(b), F.A.C.]

**C.7. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

**C.8. Applicable Test Procedures.**

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

(b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, attached as part of this permit.
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

**C.9. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. [Rule 62-297.310(6), F.A.C.]

**C.10. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; and, SIP approved.]

**C.11. Determination of Process Variables.**

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

**Recordkeeping and Reporting Requirements**

**C.12.** The Department's South District Office and the Bureau of Air Regulation shall be notified in writing at least 30 days prior to any compliance testing. [PSD-FL-151.]

**C.13. Test Reports.**

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.

(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.

7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

#### **Miscellaneous Requirements**

**C.14.** All baghouses, except for the lime silo dust collector and the baghouses for containing hydrated lime, soda ash, and activated charcoal for the facility's water treatment system, shall be equipped with pressure drop monitoring equipment. [PSD-FL-151A.]

**Section III. Emissions Unit(s) and Conditions.**

**Subsection D. This section addresses the following emissions units.**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-006	Municipal Waste Combustion Unit No. 3

Unit 3, the 3rd municipal waste combustor unit at the facility referred to as “Municipal Waste Combustion Unit No. 3,” is a nominal 660 TPD unit with a maximum heat input of 291.5 MMBtu/hour. Unit 3 is substantially similar to the existing two units, albeit with additional controls as required in order to comply with the more stringent NSPS 40 CFR Subpart Eb and BACT limits. Unit 3 was manufactured by Riley Power Boiler with Martin GmbH Stoker. Unit 3 is equipped with the following air pollution controls: a spray dryer scrubber, a fabric filter baghouse, a dry activated carbon injection system, an optional flue gas recirculation (FGR) system and a selective non-catalytic reduction (SNCR) system. Auxiliary fuel is either propane or natural gas.

Unit 3 has continuous monitors for ammonia, sulfur dioxide (SO<sub>2</sub>) nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), opacity (visible emissions), flue gas temperature, steam flow and carbon feed. The ammonia monitor was manufactured by MIDAC, the SO<sub>2</sub> continuous emissions monitoring system (CEMS) by AMETEK, and the opacity monitor by SICK MAIHAK. The NO<sub>x</sub> and CO CEMS were made by THERMO.

As part of the construction of this new unit, Unit 3, under the AC/PSD permit, the existing lime silo and ash handling systems for Units 1 and 2 were impacted via an increased throughput from the new unit. An additional lime silo was constructed, which stores pebble lime, used to make lime slurry. This lime silo vents internally to the building, i.e., has no stack that discharges to the atmosphere.

The new activated carbon silo constructed under the AC/PSD permit, serves Units 1, 2 and 3. This silo also vents internally to the building, i.e., has no stack that discharges to the atmosphere.

Unit 3 began operation on August 18, 2007.

{Permitting note(s): This ‘new’ emissions unit, Unit 3, is regulated under NSPS - 40 CFR 60, Subpart Eb, Standards of Performance for New Sources, Large Municipal Waste Combustors for Which Construction Commenced After September 20, 1994, adopted and incorporated by reference in Rule 62-204.800(8)(b)7., F.A.C.; Rule 212.400(5), F.A.C., Prevention of Significant Deterioration (PSD)(Permit No. PSD-FL-151D); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination; 40 CFR 64, Compliance Assurance Monitoring (CAM); and, Florida’s mercury rule for Waste-to-Energy Facilities, Rule 62-296.416, F.A.C.}

**NSPS Requirements**

**D.0.1. NSPS Requirements - Subpart A.** The affected emissions units shall comply with all applicable requirements of 40 CFR 60, Subpart A, General Provisions including:

- 40 CFR 60.7, Notification and Recordkeeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements



40 CFR 60.19, General Notification and Reporting requirements adopted by reference in Rule 62-204.800(8)(d), F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 60.4, 40 CFR 60.8(b)(2) and (3), 40 CFR 60.11(e)(7) and (8), 40 CFR 60.13(g), (i) and (j)(2), and 40 CFR 60.16.

These emissions units shall comply with Appendix 40 CFR 60 Subpart A attached to this permit. [Rule 62-204.800(8)(c), (d) & (e), F.A.C.]

**D.0.2. NSPS 40 CFR 60 Subpart Eb.** The affected emissions units shall comply with all applicable provisions of the 40 CFR 60, Subpart Eb-Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996. {Note: no exceptions were made in Florida's adoption of 40 CFR 60, Subpart Eb.}. In addition to the requirements specified within this revision, this emissions unit shall also comply with Appendix 40 CFR 60 Subpart Eb attached to this permit. [Rule 62-204.800(8)(b)7., F.A.C.]

**D.0.3.** The BACT standards & limits for PM and Hg contained in this permit remain more stringent than the 40 CFR 60 Subpart Eb, including the May 10, 2006 federal amendments. Where multiple applicable requirements exist, the more stringent requirement guarantees compliance with the less stringent limit. The May 10, 2006 amendments do not change the emission standards and limitations currently in effect for Unit 3. No changes are made to the emission standards and limitations for Unit 3 in this permit. [Rules 62-204.800 and 62-213.440(1), F.A.C.]

### **Operational Requirements**

**D.1. Nameplate.** The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type waste, and rated capacity. [Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-4.070(3), F.A.C.]

**D.1.1. Changes/Modifications.** The owner or operator shall submit to the Department's Bureau of Air Regulation, for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual short term or long term emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. [Condition C.1., Permit No. 0710119-005-AC/PSD-FL-151D.]

**D.2. Capacity - Process Operating Rates.** The municipal waste combustor unit (MWC) shall have a nominal rated capacity not to exceed 660 tons of waste per day. The maximum heat input shall not exceed 291.5 MMBtu/hr. Unit 3 has a design rated capacity of 197,400 lbs/hour of steam based on a heating value of 5,000 Btu/lb of MSW. [Permit No. 0710119-005-AC/PSD-FL-151D and Rules 62-4.160(2), 62-210.200(PTE), 62-4.030(3) and 62-204.800(8), F.A.C., 40 CFR 60.51b and 60.58b(j).]

**D.3. Capacity - Load Level.** *Unit load* means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Compliance with load level requirements shall be determined by a steam meter using ASME Power Test Code for Steam Generating Units, Power Test Code 4.1, section 4 (see 40 CFR 60.58b(j)(6)(ii) & (iii)). The MWC unit shall not operate at a load level greater than 110 percent of the unit's *maximum demonstrated unit load* based on 4-hour block averaged measurements of steam flow. The maximum demonstrated unit load is the highest arithmetic averaged

measurement of steam flow recorded for four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit was achieved. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b) and condition **D.14.** of this permit. [Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i) (6)&(8).]

**D.3.1. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, Condition D.1, Permit No. 0710119-005-AC/PSD-FL-151D.]

**D.3.2. Determination of Process Variables.**

(a) **Required Equipment.** The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) **Accuracy of Equipment.** Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]

**D.4. Air Pollutant Emission Control Equipment.**

Unit 3's operation began on August 18, 2007.

(a) ***Particulate Matter***

The unit shall maintain a particulate control baghouse designed, constructed and operated so as not to exceed a maximum emission rate of 20.6 mg/dscm corrected to 7 percent O<sub>2</sub>. The baghouse shall be equipped with pressure drop monitoring equipment.

(b) ***Spray Dryer Scrubber***

The unit shall maintain a spray dryer scrubber designed, constructed and operated so as to remove SO<sub>2</sub> at an efficiency of 80 percent, or not to exceed a maximum emission rate of 26 ppmvd corrected to 7 percent O<sub>2</sub> based upon a 24-hour block geometric mean, whichever is less stringent.

(c) ***Carbon Injection***

The unit shall maintain a carbon injection system. The carbon injection rate must be measured continuously and maintained in compliance with the requirements set forth in this permit as well as 40 CFR 60.58b(m).

(d) ***Selective Non Catalytic Reduction System***

The unit shall maintain a selective non catalytic reduction system designed, constructed and operated so as not to exceed a maximum NO<sub>x</sub> emission rate of 150 ppmvd corrected to 7 percent O<sub>2</sub> on a 24-hour block arithmetic mean (midnight to midnight) as well as 110 ppmvd corrected to 7 percent O<sub>2</sub> on a 12-month rolling average and designed to meet 15 ppmvd @ 7% O<sub>2</sub> ammonia slip on a 24 hour average.

Notwithstanding these requirements, the unit shall be granted a period of 12 calendar months from the initial compliance test of the MWC, in order to meet the 110 ppmvd NO<sub>x</sub> and the higher

ammonia slip limits identified within this permit. For each month after the initial calendar year of operation (calendar year 2008), the 12-month rolling average limitation shall be reduced by 2.5 ppmvd @ 7% O<sub>2</sub> until reaching the BACT limit of 110 ppmvd @ 7% O<sub>2</sub> on a 12-month rolling average. The ammonia slip limit shall be 50 ppmvd @ 7% O<sub>2</sub> for the first 12 calendar months from initial operation and shall be adjusted as set forth in paragraph **D.11(5)**, below. Note: this permit does not anticipate nor authorize ammonia plumes.

- (e) The permittee submitted to the DEPSD copies of technical data pertaining to the selected emission control systems. This data was to include, but not be limited to the manufacturer's guarantees, design inlet and outlet emission rates, and major design parameters.

[Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-4.070(3), F.A.C.]

**D.5. Stack Height.** The height of the boiler exhaust stack shall not be less than 276 feet above grade (271 feet for structural stack plus 5 feet for flue). [Permit No. 0710119-005-AC/PSD-FL-151D.]

**D.6. Methods of Operation - Fuels.** The primary fuel for the unit is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). [Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-4.070(3), F.A.C.]

**D.6.1.** Subject to the limitations contained in this permit, the authorized fuels for the unit also include the other solid wastes that are not MSW which are described below. However, the unit shall not burn:

- (a) those materials that are prohibited by state or federal law;
- (b) those materials that are prohibited by this permit;
- (c) lead acid batteries;
- (d) hazardous waste;
- (e) nuclear waste;
- (f) radioactive waste;
- (g) sewage sludge;
- (h) explosives;
- (i) beryllium-containing waste, as defined in 40 CFR 61, Subpart C.

Further, the facility shall not knowingly burn:

- (j) nickel-cadmium batteries pursuant to Section 403.7192 (3);
- (k) mercury containing devices and lamps pursuant to Sections 403.7186(2) & (3);
- (l) untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from similar generators (or sources); and
- (m) segregated loads of biological waste.

{Permitting Note: See the attached Appendix BW, Biomedical Waste Definitions, for definitions of what constitutes biomedical waste.}

**D.6.2.** The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the unit intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

- (a) well mixed with MSW in the refuse pit; or
- (b) alternately charged with MSW in the hopper.

**D.6.3.** The unit operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the unit, and subject to a percentage weight limitation, below (**D.6.6.** and **D.6.7.**). For the purposes of this permit, a segregated load is defined to mean a container or truck that is almost completely or exclusively filled with a single item or homogeneous composition of waste material, as determined by visual observation.

**D.6.4.** To ensure that the unit's fuel does not adversely affect the unit's combustion process or emissions, the unit operator shall:

- (a) comply with good combustion operating practices in accordance with 40 CFR 60.53b;
- (b) install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
- (c) record and maintain the CEMS data in accordance with 40 CFR 60.59b.

These steps shall be used to ensure and verify continuous compliance with the emissions limitations in this permit.

Natural gas or propane may be used as fuel during warm-up, startup, shutdown, and malfunction periods, and at other times when necessary and consistent with good combustion practices.

**D.6.5.** Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the unit:

- (a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- (b) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the unit. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
- (c) Wood pallets, clean wood, and land clearing debris;
- (d) Packaging materials and containers;
- (e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves;
- (f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings; and
- (g) The predominantly combustible fraction of sorted construction and demolition debris. Sorting of mixed construction and demolition debris at the unit shall occur on the tipping floor or at another location approved by the Department.

**D.6.6.** Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the unit. The total quantity of waste tires received as segregated loads and burned at the unit shall not exceed 3%, by weight, of the unit's total fuel. Compliance with this limitation shall be determined by using a calendar monthly average in accordance with specific condition **D.29.** below.

**D.6.7.** Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the unit (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the unit shall not exceed 5% by weight of the unit's total fuel. Compliance with this limitation shall be determined by using a calendar monthly average in accordance with specific condition **D.29** below.

- (a) Unsorted mixtures of construction and demolition debris, or that fraction of sorted construction and demolition debris that is predominantly non-combustible. Non-combustible construction and demolition debris shall include concrete, metals, gypsum products, plaster, rock, brick, and masonry.
- (b) Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (c) Items suitable for human, plant or domesticated animal use, consumption or application where the item's shelf-life has expired or the generator wishes to remove the items from the market. Such items or materials include but are not limited to off-specification or expired consumer products, pharmaceuticals, medications, health and personal care products, cosmetics, foodstuffs, nutritional supplements, returned goods, and controlled substances.
- (d) Consumer-packaged products intended for human or domesticated animal use or application but not consumption. Such items or materials include but are not limited to carpet cleaners, household or bathroom cleaners, polishes, waxes and detergents.
- (e) Waste materials that:
  - (i) are generated in the manufacture of items in categories (c) or (d), above and are functionally or commercially useless (expired, rejected or spent); or
  - (ii) are not yet formed or packaged for commercial distribution. Such items or materials must be substantially similar to other items or materials routinely found in MSW.
- (f) Waste materials that contain oil from:
  - (i) the routine cleanup of industrial or commercial establishments and machinery; or
  - (ii) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- (g) Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).
- (h) Waste materials generated by manufacturing, industrial or agricultural activities, provided that these items or materials are substantially similar to items or materials that are found routinely in MSW, subject to prior approval of the Department.

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

**D.7. Startup/Shutdown/Malfunctions.**

- (a) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. See also NSPS requirements set forth in paragraphs (b), (c) and (d) below.

- (b) The emission limitations for this unit shall apply at all times, except during periods of warm-up, startup, shutdown, or malfunctions (SSM), provided that the duration of startup, shutdown, or malfunction periods do not exceed 3 hours per occurrence. The duration of warm-up periods is not limited. The startup period commences when the affected unit begins the continuous burning of waste and does not include any warm-up period when the affected unit is combusting only natural gas or propane and waste is not being introduced to the combustor. The use of waste solely to provide thermal protection to the grate during the warm-up periods when waste is not being fed to the combustor is not considered to be continuous burning. During all startups, shutdowns, and malfunctions, the owner/operator shall use best operational practices to minimize air pollutant emissions.
- (c) A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner. Excess emissions that are caused entirely or in part by poor maintenance, careless operation, any other preventable upset condition, or preventable equipment breakdown shall not be considered malfunctions. Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing: (1) best operational practices to minimize emissions are adhered to, and (2) the duration of excess emissions shall be minimized but in no case exceed 3 hours per occurrence, except as noted in Condition **D.7(d)**.
- (d) Due to safety and equipment concerns, the SSM exemption period is allowed to be extended to a maximum of 15 hours in certain circumstances. The extended exemption applies only to CO emission limits in 40 CFR 60.53b(a), i.e., combustor operating practices during the following two situations:
- A loss of boiler water control (e.g., boiler waterwall tube failure); or
  - A loss of combustion air control (loss of a combustion air fan, loss of an induced draft fan, or combustion grate bar failure).

Normal operating practices for controlling CO emissions involves the use of auxiliary fuel burners. However, use of these burners when operators cannot control boiler water or combustion air could result in the possibility of an explosion or severe damage to the MWC.

[Permit No. 0710119-005-AC/PSD-FL-151D; Rules 62-210.700 & 62-204.800(8), F.A.C., and 40 CFR 60.58b(a)(1).]

**Emission Standards & Limitations**

{Permitting Note: Unless otherwise specified, the averaging times for Specific Condition **D.8**. are based on the specified averaging time of the applicable test method.}

**D.8.** Emissions from Unit 3 shall not exceed the limits listed in the following table.

[Condition **B.8.**, Permit No. 0710119-005-AC/PSD-FL-151D; BACT]

Pollutant Name	Standard(s)	Lbs/hour	TPY
Particulate Matter (PM <sub>10</sub> )	20.6 mg/dscm @ 7 % O <sub>2</sub>	5.12	22.3
MWC Metals (PM)	20.6 mg/dscm @ 7 % O <sub>2</sub>	5.12	22.3
Sulfur Dioxide (SO <sub>2</sub> )	26 ppm, or 80% reduction @ 7 % O <sub>2</sub> <sup>(1)</sup>	56.9	249.4
Sulfuric Acid Mist (SAM)	15 ppmvd @ 7 % O <sub>2</sub>	15.1	66.1

Nitrogen Oxides (NO <sub>x</sub> )	110 ppm @ 7% O <sub>2</sub> – 12-month rolling avg. 150 ppm @ 7% O <sub>2</sub> – 24 hour average	70.8	289.4
Carbon Monoxide (CO)	80 ppm @ 7% O <sub>2</sub> – 12-mo rolling avg. 100 ppm @ 7% O <sub>2</sub> – 4 hr average	23.0 28.73	100.6
Mercury (Hg)	0.028 mg/dscm @ 7% O <sub>2</sub> or 85% reduction <sup>(1)</sup>	0.0168	0.0736
Visible Emissions (VE)	10 %, 6 minute average		
Lead (Pb)	0.2 mg/dscm @ 7 % O <sub>2</sub>	0.05	0.22
MWC Acid Gas (HCl)	25 ppm or 95% reduction @ 7% O <sub>2</sub>	46.76	204.8
Hydrogen Fluoride (HF)	3.5 ppmvd @ 7% O <sub>2</sub>	0.718	3.145
Cadmium (Cd)	0.02 mg/dscm @ 7% O <sub>2</sub>	.005	0.022
Dioxin/Furan (PCDD/F)	13 ng/dscm @ 7 % O <sub>2</sub>	3.2 x 10 <sup>-6</sup>	1.4 x 10 <sup>-5</sup>
Ammonia	15 / 30 ppmvd @ 7% O <sub>2</sub>		

**Notes to table:**

Operation began on August 18, 2007.

**Abbreviations**

ug/dscm: micrograms per dry standard cubic meter

mg/dscm: milligrams per dry standard cubic meter

ng/dscm: nanograms per dry standard cubic meter

ppm: part per million dry volume

Dioxins/ furans: total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

Note (1) whichever standard is less stringent.

[Permit No. 0710119-005-AC/PSD-FL-151D and 40 CFR 60.44b, Rules 62-210.200, 62-210.400 (BACT), 62-204.800(8) and 62-4.070(3), F.A.C., and request of applicant.]

**D.9. Auxiliary Burners.** Auxiliary burners shall be fired only with natural gas or propane. [Condition B.9, Permit No. 0710119-005-AC/PSD-FL-151D.]

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.}

**D.10. Startup/Shutdown/Malfunctions.**

(a) In order to minimize excess emissions during startup/shutdown/malfunction these emissions units shall adhere to best operational practices to minimize emissions. The permittee at a minimum shall follow the best operational practices contained in the Operational Procedures Manual for Unit 3 submitted with the Title V permit application.

(b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.

(c) The owner or operator submitted to the DEPSD an operational procedures manual that identifies and describes best operational practices that will be used during startup, shutdown, and malfunctions.

[Condition D.3., Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-210.700, F.A.C.]

**Compliance & Performance Testing**

**D.11. Stack Testing.** Compliance with the emission limits for visible emissions (opacity), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>) in specific condition D.8. of this permit

shall be demonstrated by continuous emission monitoring systems (CEMS) as required by specific condition **D.18**.

Compliance tests for the other pollutants listed in specific condition D.8. shall be performed annually (unless indicated otherwise) by using the following reference methods as described in 40 CFR 60, Appendix A and/or 40 CFR 61 Appendix B adopted by reference in Chapter 62-204, F.A.C. or any other method as approved by FDEP, in accordance with Chapter 62-297, F.A.C. Stack tests may also require Method 1, 2, 3/3A/3B and 4 tests as appropriate. Testing shall be conducted in accordance with the requirements of 40 CFR 60.58b Compliance and Performance Testing. With the exception of mercury testing, emission determinations based on stack tests shall be the average of three valid test runs pursuant to Rule 62-297.310(1), F.A.C.

Method 5 <sup>(1)</sup>	Determination of Particulate Matter (PM) Emissions from Stationary Sources.
Method 9	Visual Determination of the Opacity (VE) of Emissions from Stationary Sources.
Method 13A/B <sup>(4)</sup>	Determination of Total Fluoride (HF) Emission from Stationary Sources.
Method 23 <sup>(2)</sup>	Determination of Dioxin/Furan (D/F) Conc. from Stationary Sources.
Method 26 <sup>(3)</sup> or 26A	Determination of HCl emissions.
Method 29 <sup>(3) (4)</sup>	Determination of Metals Emissions from Stationary Sources.
Method CTM-027 <sup>(5)</sup>	Conditional Test Method for Collection and Analysis of Ammonia.

- (1) Pursuant to 40 CFR 60.58b(c)(3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run. Since the limit for MWC Metals (as PM) is identical to the limit for PM<sub>10</sub>, one annual test may suffice in determining compliance with both limits.
- (2) Dioxin/Furan emission limit expressed as the total mass of tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans. The unit may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) with prior notice to the Department, if the unit's dioxin/furan emissions do not exceed 7 ng/dscm corrected to 7% O<sub>2</sub> and if the existing two MWC units' dioxin/furan emissions do not exceed 15 ng/dscm each, corrected to 7% O<sub>2</sub>.
- (3) SO<sub>2</sub>, Mercury and HCl stack tests upstream and downstream of the control device(s) shall be conducted to calculate percent control. Demonstration of the SO<sub>2</sub> emission limit shall be used as a surrogate for determining compliance with the SAM emission limit.
- (4) The mercury emission rate shall be limited to no more than 0.028 mg/dscm at 7% O<sub>2</sub> or an 85% reduction (whichever is less stringent) based upon three valid test runs (annually) pursuant to Rule 62-297.310(1), F.A.C. However, the applicant may eliminate one test run per year in the event that the single run yields an inlet Hg concentration above 0.450 mg/dscm at 7% O<sub>2</sub>, and the carbon injection system can be shown to have been operating properly. In the alternative, the applicant may retest within 30 days after receiving test results showing that



the inlet Hg concentration was above 0.450 mg/dscm at 7% O<sub>2</sub> in two or more test runs, provided the applicant demonstrates that the carbon injection system was working properly during the test runs.

- (5) The ammonia slip rate shall be initially established for a 12-month period at 50 ppmvd @ 7% O<sub>2</sub> and based upon quarterly stack test results. Thereafter, the ammonia slip rate shall be established at 30 ppmvd @ 7% O<sub>2</sub> based upon quarterly stack test results. However, if the ammonia CEMS demonstrates that the quarterly ammonia slip average for the calendar quarter preceding the scheduled quarterly test is 15 ppmvd @ 7% O<sub>2</sub> or less, then CEMS data shall substitute for the required quarterly stack test.

[Condition **B.10.**, Permit No. 0710119-005-AC/PSD-FL-151D; Rule 62-204.800(8), F.A.C.; and, Chapter 62-297, F.A.C.]

**D.12. Test Procedures.** Compliance tests shall meet all applicable requirements (i.e., testing frequency, minimum compliance duration, etc.) of Chapter 62-297, F.A.C. The Method 9 test shall be conducted during one run of the particulate matter test. The particulate matter test shall be conducted under conditions representative of normal operations and at least one test run shall be conducted during a normal (soot blowing) cycle. Simultaneous CEMS data for NO<sub>x</sub> shall be submitted with the quarterly ammonia stack test data and results. All test reports shall include the information required by 40 CFR 60.59b(f) [e.g., max. demonstrated load, max. temperature inlet to baghouse, average carbon mass rate, etc.] [Rules 62-4.070(3), 62-297.310 and 62-204.800(8), F.A.C.; 40 CFR 60.38b, 40 CFR 60.58b and 40 CFR 60.59b.]

**D.13. Required Stack Sampling Facilities.** When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit. The owner or operator shall provide ports in the air pollution control equipment outlet duct or stack and shall provide access to the sampling ports. [Rule 62-297.310(6), F.A.C. and Condition **B.12.**, Permit No. 0710119-005-AC/PSD-FL-151D.]

**D.14. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit in operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. See also specific conditions **D.2.** and **D.3.** of this permit for limitations related to unit load for the MWC unit. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b) and condition **D.3.** of this permit. [Condition **D.7.**, Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-297.310(2) & (2)(b), F.A.C., and 40 CFR 53b(b).]

**D.15. Exceptions and Approval of Alternate Procedures and Requirements.** An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C. [Condition **C.4.**, Permit No. 0710119-005-AC/PSD-FL-151D.]

**D.16. Test Notification.** The owner or operator shall notify the DEPSD in writing at least 30 (thirty) days (for the annual tests) prior to each scheduled compliance test to allow witnessing. The notification

shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The 30 day notification requirement may be waived at the discretion of the DEPSD. Likewise, if circumstances prevent testing during the test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. [Condition **D.5.**, Permit No. 0710119-005-AC/PSD-FL-151D and Rule 62-297.310, F.A.C.; and, 40 CFR 60.8,]

**D.17. Special Compliance Tests.** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.; and, SIP approved.]

### **Monitoring of Operations**

**D.18. Continuous Monitoring.** Compliance with the emission limits for carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) in specific condition **D.8.** of this permit shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with the requirements of 40 CFR 60.58b. Oxygen (O<sub>2</sub>), and opacity shall be monitored by continuous monitoring systems. Monitors for sulfur dioxide and oxygen shall be located both upstream of the dry scrubber and downstream of the baghouse in order to calculate percentage removal efficiency. A CEMS shall be installed for the purpose of measuring ammonia slip from this emissions unit (with a range of 100 ppm), and used for informational purposes rather than continuous compliance (other than as allowed for in specific condition D.11.). For purposes of the RATA, this CEMS shall be compared to CTM-027. All continuous monitoring systems shall be installed, calibrated, maintained and operated as required by 40 CFR 60.13 and shall conform to all applicable Performance Specifications in 40 CFR 60, Appendix B. Quality assurance procedures shall conform to all applicable sections of 40 CFR 60, Appendix F. [Rules 62-4.070(3) and 62-204.800(8), F.A.C.; 40 CFR 60.38 and 40 CFR 60.58b.]

**D.19. Compliance Assurance Monitoring (CAM) Requirements.** These emissions units are subject to the CAM requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and, Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

**D.20. Continuous Load Monitoring.** The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in kilograms (or pounds) per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b). [Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(6).]

**D.21. Charging Rate Monitoring.** The average daily solid waste charging rate shall be determined on a monthly basis and recorded for the MWC unit. The daily charging rate shall be determined each month on an average daily basis for the MWC unit using the facility's truck scale weight data, refuse pit inventory data and MWC operating data for the preceding calendar month. Monthly truck scale weight

records of the weight of solid waste received and processed at the unit, and refuse pit inventory data, shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determine the number of operating hours for each day during the preceding calendar month. [Rules 62-204.800(8) and 62-4.070(3), F.A.C., and 40 CFR 60.53(a).]

**D.22. Compliance with the PM Control Device Temperature.** The MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. The MWC unit shall be allowed to operate up to 17°C (30° F) above the unit's maximum demonstrated PM control device temperature. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic measurement of temperature at the inlet to the PM control device recorded for 4 consecutive hours during the most recent dioxin/furan performance test which complied with the limits given above. The PM control device inlet temperature and the steam flow for the unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Eb. Higher temperatures are allowed for testing purposes, as specified at 40 CFR 60.53b(c). [Rule 62-204.800(8), F.A.C. and 40 CFR 60.38b, 40 CFR 60.53b(c) and 60.58b(i)(7) and (9).]

**D.23. Carbon Injection Rate.** The optimal carbon injection rate in pounds-per hour shall be determined during initial operations preceding and during the initial compliance test. Optimization should be based upon the maximum expected mercury inlet concentrations as well as necessary operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed. The owner or operator shall estimate the total carbon usage for the unit for each calendar quarter by utilizing the measured carbon mass feed rate (lb/hr) for each hour of operation of the MWC unit based on the continuous indicator for carbon mass feed rate, and the total number of operating hours of operation during the calendar quarter.

40 CFR 60.58b(m)(2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate ( e.g. , screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under 40 CFR 60.58b(m)(1)(i) and 40 CFR 60.58b(m)(1)(ii), except as specified in 40 CFR 60.58b(m)(2)(i) and 40 CFR 60.58b(m)(2)(ii).

(i) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of 40 CFR 60.58b(m)(2)(ii) are met.

(ii) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.

[Rule 62-204.800(8), F.A.C. and 40 CFR 60.58b(m).]

**D.24. Continuous Monitors.** Continuous monitors with recorders shall be installed, calibrated, maintained and operated for the unit subject to review by the DEPSD for the following operational parameters:

Total steam production (mass/hr, pressure and temperature)

Carbon injection system feed rate (kg/hr or lb/hr)

Particulate matter control device inlet temperature

Power generation (MW, total power production from the single turbine generator)

[Rule 62-204.800(8), F.A.C. and 40 CFR 60.58b.]

### **Recordkeeping & Reporting Requirements**

**D.25. Reports and Records.** All measurements, records and other data (test reports, etc.) required to be maintained by this facility shall be retained for at least five (5) years following the date on which such measurements, records and other data are recorded. Such records shall be maintained at the facility and shall include but not be limited to the items listed below. These records shall be made available upon request to the DEPSD for inspection at the facility.

- (a) Data collected from all monitoring instruments, including continuous monitoring systems, steam flow measurements and PM control device temperatures;
- (b) Continuous steam flow records on a 4-hour block average basis;
- (c) Records of daily solid waste charging rates and hours of operation derived from monthly truck scale data, refuse pit inventory, and operational records;
- (d) <intentionally left blank>
- (e) Results of all source tests or performance tests; and records of the maximum demonstrated unit load specified by condition **D.3.** of this permit.
- (f) Amounts of activated carbon used for emissions control;
- (g) Calibration logs for all instruments subject to this permit;
- (h) Maintenance/repair logs for any work performed which is subject to this permit;
- (i) Records showing the names of facility personnel who have been provisionally or fully certified, and who have completed the MWC operator training course, and who have completed reviews of the operating manual, including the dates and documentation of certification/review.
- (j) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by specific condition **D.29.** of this permit.

[Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C.; and 40 CFR 60.59b.]

### **D.26. Excess Emission Reports.**

**D.26.1. Quarterly Reports.** The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the unit pursuant to 40 CFR 60.7(c). If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report quarterly stating that no excess emissions occurred during the quarterly reporting period. The report shall include the following:

- (a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions. [40 CFR 60.7(c)(1).]
- (b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted. [40 CFR 60.7(c)(2).]
- (c) The date and time identifying each period during which the continuous monitoring system (CEM/COM) was inoperative except for zero and span checks, and the nature of the system repairs or adjustments. [40 CFR 60.7(d)(2) as applicable.]

- (d) When no excess emissions have occurred or the continuous monitoring system (CEM/COM) has not been inoperative, repaired, or adjusted, such information shall be stated in the report. [40 CFR 60.7(c)(4).]

**D.26.2. Other Excess Emission Reports.** In case of excess emissions resulting from malfunctions\*, the owner or operator shall notify the DEPSD in accordance with Section 62-4.130, F.A.C. The DEPSD shall be notified within one working day excluding weekends and holidays of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the DEPSD may request a written summary report of the incident. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the DEPSD.

\* Malfunction is defined at Rule 62-210.200, F.A.C. to mean any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

[Rules 62-4.130 and 62-210.700(6), F.A.C.]

**D.27. Continuous Emission Monitoring System Reports.** For CEM and other monitoring systems required by this permit, data on monitoring equipment specifications, manufacturer, type, calibration and maintenance needs, and proposed sampling location shall be provided to the DEPSD for review at least 90 days prior to installation. [Rule 62-4.070(3), F.A.C.]

**D.28. Operating Reports.** Before April 1st of each year the owner or operator shall submit to the DEPSD the Annual Operating Report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year. No later than February 1st of each year, the owner or operator shall submit an annual report for the previous calendar year including the information required by 40 CFR 60.59b(g)(1) through (4), as applicable. In addition, if applicable, the owner or operator shall submit to the DEPSD the information required in 40 CFR 60.59b(h) on a semiannual basis. [Rule 62-210.370(3), F.A.C. and 40 CFR 60.59b(g) and, if applicable, 40 CFR 60.59b(h).]

**D.29. Segregated Solid Waste Record Keeping.** The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific condition **D.6.6.** and **D.6.7.:**

Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of specific condition **D.6.6.** and **D.6.7.**, which is received for processing shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the current month. The resultant weight of tires at the end of each calendar month (excluding tires stored at the waste tire processing facility) shall be divided by the total weight of all waste materials received during each calendar month, and the resultant number shall be multiplied by 100 to express the ratio as a percent. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction (restricted materials) shall be computed, and the daily total shall be added to the sum of the daily totals of the current month. The resultant total weight of restricted materials at the end of each calendar month shall be divided by the total weight of all waste materials received

during each calendar month, and the resultant number shall be multiplied by 100 to express the ratio as a percent. The percentage computed shall be compared to the 5% limitation.

Subsequent to an initial test burn scheduled to allow Department representatives to observe, while firing 5% (by weight) tires at the combustion unit while operating the unit at capacity that demonstrates via the CEMS that the unit can comply with the emission limits for pollutants monitored by the CEMS while firing 5% (by weight) tires, this quantity limitation shall rise from 3% to 5%. Compliance with this limitation shall be determined on a calendar monthly basis.

**D.30. Heat Input Reporting Requirements.** The owner or operator shall submit to the DEPSD notification of the date of initial startup as provided by 40 CFR 60.7. Such notification shall include the design heat input capacity of the affected unit, and the annual capacity factor at which the owner or operator anticipates operating the unit based on the fuels fired. [40 CFR 60.49b(a)(1) & (3) and 40 CFR 60.59b(b).]

**D.31. Report of Vendor and Equipment Selection.** Within 60 days of selection of a primary vendor for this project, a report detailing the design features of the MWC equipment to be installed shall be submitted to the DEPSD. Such report shall include the nominal and maximum design capacities of the furnace, grates and boiler, and shall detail operating rates such as heat input, steam production, mass throughput and turndown capability. [Rule 62-4.070(3), F.A.C.]

**D.32. Test Reports.**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
  1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.

11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

### **Operator Training and Certification Requirements**

#### **D.33. Operator Training and Certification Requirements.**

- (a) One of the following persons must be on duty at the facility at any time during which the MWC unit is operating: a fully certified chief facility operator or shift supervisor; or a provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam. If this person must leave the facility during his or her operating shift, a provisionally certified control room operator who is on site may fulfill this requirement. A qualified, professionally certified control room operator may temporarily replace the fully certified shift supervisor during specific periods when the certified shift supervisor is excused from work due to vacation or illness and after notification to the Department's South District Office.  
[40 CFR 60.39b(c)(4) (ii) and 40 CFR 60.54b(c).]
- (b) Each chief facility operator and shift supervisor must obtain and maintain a current provisional operator certification and be scheduled for a full certification exam, or receive full certification, with either the ASME or an equivalent state-approved certification program before the date that person assumes responsibility for operation of the facility.  
[40 CFR 60.39b(c)(4)(ii) and 40 CFR 60.54b(a) and (b).]
- (c) Each chief facility operator, shift supervisor, and control room operator must complete the EPA or state approved MWC operator training course before the date that person assumes responsibility for operation of the facility. The operator training course requirements of 40 CFR 60.54b(d) do not apply to chief facility operators, shift supervisors and control room operators who have obtained full ASME certification on or before the date of State plan

approval (November 13, 1997). [40 CFR 60.39b(c)(4)(iii)(A).] The owner or operator may request that the Department waive the operator training course requirements specified in 40 CFR 60.54b(d) for chief facility operators, shift supervisors and control room operators who have obtained provisional ASME certification on or before the date of State plan approval (November 13, 1997) [40 CFR 60.39b(c)(4)(iii)(B).].  
[40 CFR 60.39b(c)(4) and 40 CFR 60.54b(d).]

- (d) A site-specific operating manual must be developed and updated on an annual basis [40 CFR 60.54b(e)]. A training program must be established to review the operating manual with each person who has responsibilities affecting the operation of the MWC including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person must undergo initial training before the day that person assumes responsibilities affecting operation of the facility and annually thereafter pursuant to 40 CFR 60.54b(f). The operating manual must be kept in a readily accessible location for all persons required to undergo training.  
[40 CFR 60.35b and 40 CFR 60.54b(e) & (f).]

**D.34. Operating Procedures.** Operating procedures shall include good combustion practices and proper training and certification of all operators. The good combustion practices shall meet the guidelines established in 40 CFR 60, Subpart Eb and procedures as established by recognized industry standards. All operators (including supervisors) of air pollution control device shall be properly trained and certified in plant specific equipment. A list of all such certified personnel shall be submitted to the DEPSD. Department's staff shall be given notice of any formal training sessions related to operation and maintenance of air pollution control devices. [Condition C.3., Permit No. 0710119-005-AC/PSD-FL-151D.]

#### **Miscellaneous Requirements**

**D.35. Waste Disposal.** The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not relieve the permittee from securing any other types of required permits, licenses, or certifications. [Condition E.1., Permit No. 0710119-005-AC/PSD-FL-151D.]



# Appendix CAM

## Compliance Assurance Monitoring

(version dated 06/09/05)

### **Compliance Assurance Monitoring Requirements**

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. – 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

#### **40 CFR 64.6 Approval of Monitoring.**

1. The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.

[40 CFR 64.6(a)]

2. The attached CAM plan(s) include the following information:

(i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);

(ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and

(iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable.

[40 CFR 64.6(c)(1)]

3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see **CAM Conditions 5. - 14.**) and reporting exceedances or excursions (see **CAM Conditions 15. - 16.**).

[40 CFR 64.6(c)(2)]

4. The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see **CAM Conditions 5. - 16.**).

[40 CFR 64.6(c)(3)]

#### **40 CFR 64.7 Operation of Approved Monitoring.**

5. Commencement of operation. The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.

[40 CFR 64.7(a)]

6. Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

[40 CFR 64.7(b)]

7. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and

## **Appendix CAM**

### **Compliance Assurance Monitoring**

**(version dated 06/09/05)**

required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

#### **8. Response to excursions or exceedances.**

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(1) & (2)]

**9. Documentation of need for improved monitoring.** If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

#### **40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.**

**10.** Based on the results of a determination made under **CAM Condition 8.b.**, above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with **CAM**

## Appendix CAM

### Compliance Assurance Monitoring (version dated 06/09/05)

**Condition 4.**, an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

[40 CFR 64.8(a)]

**11. Elements of a QIP:**

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
  - (i) Improved preventive maintenance practices.
  - (ii) Process operation changes.
  - (iii) Appropriate improvements to control methods.
  - (iv) Other steps appropriate to correct control performance.
  - (v) More frequent or improved monitoring (only in conjunction with one or more steps under **CAM Condition 11.b(i)** through **(iv)**, above).

[40 CFR 64.8(b)]

**12.** If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

**13.** Following implementation of a QIP, upon any subsequent determination pursuant to **CAM Condition 8.b.**, the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:

- a. Failed to address the cause of the control device performance problems; or
- b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

**14.** Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40 CFR 64.8(e)]

#### **40 CFR 64.9 Reporting And Recordkeeping Requirements.**

**15. General reporting requirements.**

## Appendix CAM

### Compliance Assurance Monitoring

(version dated 06/09/05)

- a. Commencing from the effective date of this permit, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
- b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
  - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
  - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
  - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10.** through **14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

#### **16. General recordkeeping requirements.**

- a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to **CAM Conditions 10.** through **14.** and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

#### **40 CFR 64.10 Savings Provisions.**

#### **17. It should be noted that nothing in this appendix shall:**

- a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
- b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any

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owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.

- c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

**CAM Plan**  
**Compliance Assurance Monitoring Plan**  
(version dated 04/22/2009)

Lee County Department of Solid Waste  
Lee County Resource Recovery Facility

Final Permit No. 0710119-006-AV  
Facility ID No. 0710119

The following emissions unit is subject to the CAM provisions only for the pollutants indicated:

E.U. ID No.	Brief Description	<u>Pollutant(s)</u> <u>subject to CAM</u>
-006	Municipal Waste Combustion Unit No. 3	SAM, HF

For ease of reference the following definitions are cited from 40 CFR 64.1 Definitions (10/03/1997):

*Exceedance shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period specified for averaging the results of the monitoring.*

*Excursion shall mean a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.*

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Lee County Resource Recovery Facility

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**Sulfuric Acid Mist (SAM)**

Table 1. Monitoring Approach

E.U. ID No. -006	Indicator No. 1
A. Indicator	SO <sub>2</sub> for SAM emissions
Measurement Approach	SO <sub>2</sub> outlet concentration or removal efficiency
B. Indicator Range	26 ppm or 80% reduction, corrected to 7% oxygen (dry basis), whichever is less stringent.
Equipment	Spray dryer absorption scrubber (SDA) followed by a fabric filter.
QIP Threshold <sup>1</sup>	An 'excursion' is defined as operation above the SO <sub>2</sub> limit. Excursions trigger an inspection, corrective action, and a reporting requirement.  Seven (7) excursions of the 24-hour daily geometric mean in a 6 month reporting period.
C. Performance Criteria	CEMS installed, certified, maintained, and operated pursuant to 40 CFR Part 60, Appendix B.
1. Data Representativeness	
2. Verification of Operational Status	40 CFR Part 60, Subpart Eb mandates CEMS data availability.
3. QA/QC Practices and Criteria	40 CFR 60.13 and 40 CFR Part 60, Appendix B.
4.a. Monitoring Frequency	Continuous
b. Data Collection Procedures	At least two data points of the SO <sub>2</sub> outlet concentration or removal efficiency per hour are electronically recorded and used to calculate a 1-hour arithmetic average per 40 CFR 60.58b(e).
c. Averaging Period	24-hour daily geometric mean of the 1-hour averages.

<sup>1</sup> This specific QIP threshold adequately implements Condition 10. of the CAM Requirements.

**CAM Plan**  
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Lee County Department of Solid Waste  
Lee County Resource Recovery Facility

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**Hydrogen Fluoride (HF)**

Table 1. Monitoring Approach

E.U. ID No. -006	Indicator No. 1
A. Indicator	SO <sub>2</sub> for HF emissions
Measurement Approach	SO <sub>2</sub> outlet concentration or removal efficiency
B. Indicator Range	26 ppm or 80% reduction, corrected to 7% oxygen (dry basis), whichever is less stringent.
Equipment	Spray dryer absorption scrubber (SDA) followed by a fabric filter.
QIP Threshold <sup>1</sup>	An 'excursion' is defined as operation above the SO <sub>2</sub> limit. Excursions trigger an inspection, corrective action, and a reporting requirement.  Seven (7) excursions of the 24-hour daily geometric mean in a 6 month reporting period.
C. Performance Criteria	CEMS installed, certified, maintained, and operated pursuant to 40 CFR Part 60, Appendix B.
1. Data Representativeness	
2. Verification of Operational Status	40 CFR Part 60, Subpart Eb mandates CEMS data availability.
3. QA/QC Practices and Criteria	40 CFR 60.13 and 40 CFR Part 60, Appendix B.
4.a. Monitoring Frequency	Continuous
c. Data Collection Procedures	At least two data points of the SO <sub>2</sub> outlet concentration or removal efficiency per hour are electronically recorded and used to calculate a 1-hour arithmetic average per 40 CFR 60.58b(e).
c. Averaging Period	24-hour daily geometric mean of the 1-hour averages.

<sup>1</sup> This specific QIP threshold adequately implements Condition 10. of the CAM Requirements.



**Appendix U-1, List of Unregulated Emissions Units and/or Activities.**

Lee County  
Lee County Resource Recovery Facility

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Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

<b>E.U. ID No.</b>	<b>Brief Description of Emissions Units and/or Activity</b>
-005	Cooling Tower

## Appendix I-1, List of Insignificant Emissions Units and/or Activities.

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The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

### Brief Description of Emissions Units and/or Activities

1. Ferric Sulfate Tank
2. Caustic Soda Tank
3. Sulfuric Acid Tank
4. Boiler Chemicals
5. Cooling Tower Chemicals
6. Solvent Degreaser
7. Soda Ash Silo
8. Carbon Silo
9. Truck Traffic
10. Hydrated Lime Silo
11. Ash Building
12. Lime System Enclosure
13. 1000-hp Portable Diesel Wood Grinder (non-road engine)
14. Transfer Station
15. Horticultural Processing Facility
16. 325-hp Portable Diesel Tire Shredder (non-road engine)
17. 330-hp Diesel Generator
18. Diesel Fire Pumps (3): 305-hp, 300-hp, 79-hp
19. <intentionally left blank>
20. Sandblasting Pot (100 lb.)
21. 63- hp Portable Diesel Welding Machine (non-road engine)
22. Anhydrous ammonia and urea storage tanks

<b>Table 1-1, Summary of Air Pollutant Standards and Terms</b>									
Lee County Lee County Resource Recovery Facility								Final Permit No. 0710119-006-AV Facility ID No. 0710119	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.		Brief Description							
-001		Unit 1, 660 Ton Per Day Mass Burn Unit			72,039 dscfm per unit				
-002		Unit 2, 660 Ton Per Day Mass Burn Unit			72,039 dscfm per unit				
		Allowable Emissions				Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
Particulate Matter	all	8,760	0.010 gr/dscf, corrected to 7% O <sub>2</sub>	5.34	21.30	41.0	163.30	PSD-FL-151	A.21.
Sulfur Dioxide	all	8,760	29 ppm or 80% reduction, at 7% O <sub>2</sub>	41.0				PSD-FL-151	A.30.
Nitrogen Oxides	all	8,760	180 ppm, corrected to 7% O <sub>2</sub>	80.0	320.0			PSD-FL-151	A.33.
Volatile Organic Compounds	all	8,760	37 ppm, corrected to 7% O <sub>2</sub>	5.80	23.0			PSD-FL-151	A.29.
Carbon Monoxide	all	8,760	100 ppm, corrected to 7% O <sub>2</sub>	27.2	108			PSD-FL-151	A.34.
Mercury Before April 28, 2009	all	8,760	0.070 mg/dscm, or 85% reduction	0.0379	0.166			40 CFR 60.33b(a)(3)	A.24., A.25.
Mercury On and after April 28, 2009	all	8,760	0.050 mg/dscm, or 85% reduction	0.0271	0.118			40 CFR 60.33b(a)(3)	A.24., A.25.
Beryllium	all	8,760	1.35 x 10 <sup>-7</sup> lb/MMBtu heat input	3.7 x 10 <sup>-5</sup>	1.47 x 10 <sup>-4</sup>			PSD-FL-151	A.28.
Visible Emissions	all	8,760	10 %, 6 minute average					40 CFR 60.33b(a)(1)(iii)	A.22.
Cadmium Before April 28, 2009	all	8,760	0.040 mg/dscm, corrected to 7% O <sub>2</sub>					40 CFR 60.33b(a)(2)(i)	A.23.
Cadmium On and after April 28, 2009	all	8,760	0.035 mg/dscm, corrected to 7% O <sub>2</sub>	0.0094	0.041				
Lead Before April 28, 2009	all	8,760	0.440 mg/dscm, corrected to 7% O <sub>2</sub>					40 CFR 60.33b(a)(4)	A.26.
Lead On and after April 28, 2009	all	8,760	0.400 mg/dscm, corrected to 7% O <sub>2</sub>	0.108	0.473			40 CFR 60.33b(a)(4)	A.26.
Lead	all	8,760	0.0060 lbs/MMBtu	0.165	0.66			PSD-FL-151	A.26.
Hydrogen Chloride	all	8,760	25 ppm or 95% reduction to 7% O <sub>2</sub>	17.7	77.52			PSD-FL-151	A.31.
Dioxin/Furan	all	8,760	30 ng/dscm, corrected to 7% O <sub>2</sub>	7.0 x 10 <sup>-6</sup>	2.8 x 10 <sup>-5</sup>			PSD-FL-151	A.32.
Fluoride	all	8,760	5.0 ppm corrected to 7% O <sub>2</sub>	0.96	3.8			PSD-FL-151	A.27.
Sulfuric Acid Mist	all	8,760	0.036 lb/MMBtu	9.85	39.3			PSD-FL-151	A.35.
Arsenic	all	8,760	9.1 x 10 <sup>-8</sup> lbs/MMBtu	2.5 x 10 <sup>-3</sup>	0.01			PSD-FL-151	A.36.
Ammonia	all	8,760	50 ppm, by volume	12.25	53.66			PSD-FL-151	A.37.
Fugitive Ash	all	8,760	5%			40 CFR 60.36b	A.38.		
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									
The emissions limits in pounds per hour and tons per year are for each Unit.									

<b>Table 1-1, Summary of Air Pollutant Standards and Terms</b>									
Lee County							Final Permit No. 0710119-006-AV		
Lee County Resource Recovery Facility							Facility ID No. 0710119		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-006	Unit 3, 660 Ton Per Day Mass Burn Unit		69,200 dscfm						
Allowable Emissions						Equivalent Emissions*			
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
Particulate Matter	all	8,760	20.6 mg/dscm @ 7 % O <sub>2</sub>	5.12	22.3	8.72	38.19	PSD-FL-151D	D.8.
Sulfur Dioxide	all	8,760	26 ppm or 80% reduction, at 7% O <sub>2</sub>	56.9	249.4			PSD-FL-151D	D.8.
Nitrogen Oxides	all	8,760	110 ppm @ 7% O <sub>2</sub> – 12-month rolling avg.	70.8	289.4			PSD-FL-151D	D.8.
			150 ppm @ 7% O <sub>2</sub> – 24 hour average						
Carbon Monoxide	all	8,760	80 ppm @ 7% O <sub>2</sub> – 12-mo rolling avg.	23	100.6			PSD-FL-151D	D.8.
			100 ppm @ 7% O <sub>2</sub> – 4 hr average	28.73					
Mercury	all	8,760	0.028 mg/dscm @ 7% O <sub>2</sub> , or 85% reduction	0.0168	0.0736			PSD-FL-151D	D.8.
Visible Emissions	all	8,760	10 %, 6 minute average					PSD-FL-151D	D.8.
Cadmium	all	8,760	0.020 mg/dscm, corrected to 7% O <sub>2</sub>	0.005	0.022			PSD-FL-151D	D.8.
Lead	all	8,760	0.2 mg/dscm, corrected to 7% O <sub>2</sub>	0.05	0.22			PSD-FL-151D	D.8.
Hydrogen Chloride	all	8,760	25 ppm or 95% reduction to 7% O <sub>2</sub>	46.76	204.8			PSD-FL-151D	D.8.
Dioxin/Furan	all	8,760	13 ng/dscm, corrected to 7% O <sub>2</sub>	3.2 x 10 <sup>-6</sup>	1.4 x 10 <sup>-5</sup>			PSD-FL-151D	D.8.
Hydrogen Fluoride	all	8,760	3.5 ppm corrected to 7% O <sub>2</sub>	0.718	3.145			PSD-FL-151D	D.8.
Sulfuric Acid Mist	all	8,760	15 ppm, corrected to 7% O <sub>2</sub>	15.1	66.1			PSD-FL-151D	D.8.
Ammonia	all	8,760	15 / 30 ppm, by volume			PSD-FL-151D	D.8.		
Fugitive Ash	all	8,760	5%			PSD-FL-151D	D.8.		
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

<b>Table 1-1, Summary of Air Pollutant Standards and Terms</b>									
Lee County							Final Permit No. 0710119-006-AV		
Lee County Resource Recovery Facility							Facility ID No. 0710119		
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.									
E.U. ID No.	Brief Description								
-003	Lime Storage Silo								
Allowable Emissions					Equivalent Emissions*				
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	lbs./hour	TPY	lbs./hour	TPY	Regulatory Citation(s)	See permit condition(s)
Visible Emissions	N/A	8760	5% opacity					PSD-FL-151	<b>B.2.</b>
Notes:									
* The "Equivalent Emissions" listed are for informational purposes only.									

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Lee County Final Permit No. 0710119-006-AV  
 Lee County Resource Recovery Facility Facility ID No. 0710119

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

**E.U. ID No. Brief Description**

-004 Ash Handling System

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*		Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lbs./hour	TPY	lbs./hour	TPY		
Particulate Matter	N/A	8760	0.010 grains/dscf			2.12	8.28	PSD-FL-151	
Visible Emissions	N/A	8760	5% opacity					PSD-FL-151	

Notes:  
 \* The "Equivalent Emissions" listed are for informational purposes only.

**Table 2-1, Summary of Compliance Requirements**

Lee County

Final Permit No. 0710119-006-AV

Lee County Resource Recovery Facility

Facility ID No. 0710119

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

<b>E.U. ID No.</b>	<b>Brief Description</b>						
-001	Unit 1, 660 Ton Per Day Mass Burn Unit						
-002	Unit 2, 660 Ton Per Day Mass Burn Unit						
			Testing	Frequency	Min. Compliance		
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Time Frequency	Base Date *	Test Duration	CMS**	See permit condition(s)
Particulate Matter	all	Method 5	Annual		60 min.		A.46.
Sulfur Dioxide	all	Methods 6, 6A, or 6C; & 19	Annual		60 min.	Yes	A.49.
Nitrogen Oxides	all	Methods 19 & 7E	Annual		60 min.	Yes	A.52.
Volatile Organic Compounds	all	Method 25A or 25B	Renewal		60 min.		A.55., A.66.1.
Carbon Monoxide	all	Method 10	Annual		60 min.	Yes	A.56.
Mercury	all	Method 29	Annual		60 min.		A.47., A.48.
Beryllium	all	Method 29	Renewal		60 min.		A.54., A.66.1.
Visible Emissions	all	Method 9	Annual		60 min.	Yes	A.46.
Cadmium	all	Method 29	Annual		60 min.		A.47.
Lead	all	Method 29	Annual		60 min.		A.47.
Hydrogen Chloride	all	Method 26 or 26A	Annual		60 min.		A.50.
Dioxin/Furan	all	Method 23	Annual		4 hours		A.51.
Fluoride	all	Method 13A or 13B	Renewal		60 min.		A.53., A.66.1.
Sulfuric Acid Mist	all	Method 8	Renewal		60 min.		A.57., A.66.1.
Arsenic	all	Method 29	Renewal		60 min.		A.58., A.66.1.
Ammonia	all	Conditional Test Method (CTM-027)	Renewal		60 min.		A.59., A.66.1.
Fugitive Ash	all	Method 22	Annual		60 min.		A.60.

Notes:

\* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.

\*\*CMS [=] continuous monitoring system

<b>Table 2-1, Summary of Compliance Requirements</b>							
Lee County				Final Permit No. 0710119-006-AV			
Lee County Resource Recovery Facility				Facility ID No. 0710119			
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
<b>E.U. ID No.</b>	<b>Brief Description</b>						
-006	Unit 3, 660 Ton Per Day Mass Burn Unit						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time	Frequency	Min. Compliance		See permit condition(s)
			Frequency	Base Date *	Test Duration	CMS**	
Particulate Matter	all	Method 5	Annual		60 min.		D.11.
Sulfur Dioxide	all	Methods 6, 6A, or 6C; & 19	Annual		60 min.	Yes	D.11.
Nitrogen Oxides	all	Methods 19 & 7E	Annual		60 min.	Yes	D.11.
Carbon Monoxide	all	Method 10	Annual		60 min.	Yes	D.11.
Mercury	all	Method 29	Annual		60 min.		D.11.
Visible Emissions	all	Method 9	Annual		60 min.	Yes	D.11.
Cadmium	all	Method 29	Annual		60 min.		D.11.
Lead	all	Method 29	Annual		60 min.		D.11.
Hydrogen Chloride	all	Method 26 or 26A	Annual		60 min.		D.11.
Dioxin/Furan	all	Method 23	Annual		4 hours		D.11.
Hydrogen Fluoride	all	Method 13A or 13B	Renewal		60 min.		D.11.
Sulfuric Acid Mist	all	SO <sub>2</sub> test serves as surrogate			60 min.		D.11.
Ammonia	all	Conditional Test Method (CTM-027)	Quarterly		60 min.	Yes	D.11.
Fugitive Ash	all	Method 22	Annual		60 min.		D.11.
Notes:							
* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C.							
**CMS [=] continuous monitoring system							





<b>Table 2-1, Summary of Compliance Requirements</b>							
Lee County						Final Permit No. 0710119-006-AV	
Lee County Resource Recovery Facility						Facility ID No. 0710119	
This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.							
<b>E.U. ID No.</b>	<b>Brief Description</b>						
-004	Ash Handling System						
Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time Frequency	Frequency Base Date <sup>1</sup>	Min. Compliance Test Duration	CMS <sup>2</sup>	See permit condition(s)
Particulate Matter	N/A	Method 5	Annual <sup>3</sup>		60 min.		C.4. & C.10.
Visible Emissions	N/A	Method 9	Annual		30 min.		C.4. & C.10
<b>Notes:</b>							
<sup>1</sup> The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C., this date is to be established (TBE) by the initial compliance							
<sup>2</sup> CMS [=] continuous monitoring system							
<sup>3</sup> Compliance testing for PM is waived as long as the unit maintains Visible Emissions less than 5%. If the Department has reason to believe that the particulate weight emission standard is not being met, it shall require that compliance be demonstrated using EPA Method 5.							

## APPENDIX TV-6, TITLE V CONDITIONS (version dated 06/23/06)

[Note: This attachment includes “canned conditions” developed from the “Title V Core List.”]

{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.}

### Chapter 62-4, F.A.C.

1. **Not federally enforceable.** General Prohibition. Any stationary installation which will reasonably be expected to be a source of pollution shall not be operated, maintained, constructed, expanded, or modified without the appropriate and valid permits issued by the Department, unless the source is exempted by Department rule. The Department may issue a permit only after it receives reasonable assurance that the installation will not cause pollution in violation of any of the provisions of Chapter 403, F.S., or the rules promulgated thereunder. A permitted installation may only be operated, maintained, constructed, expanded or modified in a manner that is consistent with the terms of the permit.

[Rule 62-4.030, Florida Administrative Code (F.A.C.); and, Section 403.087, Florida Statute (F.S.)]

2. **Not federally enforceable.** Procedures to Obtain Permits and Other Authorizations; Applications.

(1) Any person desiring to obtain a permit from the Department shall apply on forms prescribed by the Department and shall submit such additional information as the Department by law may require.

(2) All applications and supporting documents shall be filed in quadruplicate with the Department.

(3) To ensure protection of public health, safety, and welfare, any construction, modification, or operation of an installation which may be a source of pollution, shall be in accordance with sound professional engineering practices pursuant to Chapter 471, F.S. All applications for a Department permit shall be certified by a professional engineer registered in the State of Florida except, when the application is for renewal of an air pollution operation permit at a non-Title V source as defined in Rule 62-210.200, F.A.C., or where professional engineering is not required by Chapter 471, F.S. Where required by Chapter 471 or 492, F.S., applicable portions of permit applications and supporting documents which are submitted to the Department for public record shall be signed and sealed by the professional(s) who prepared or approved them.

(4) Processing fees for air construction permits shall be in accordance with Rule 62-4.050(4), F.A.C.

(5)(a) To be considered by the Department, each application must be accompanied by the proper processing fee. The fee shall be paid by check, payable to the Department of Environmental Protection. The fee is non-refundable except as provided in Section 120.60, F.S., and in this section.

(b) When an application is received without the required fee, the Department shall acknowledge receipt of the application and shall immediately notify the applicant by certified mail that the required fee was not received and advise the applicant of the correct fee. The Department shall take no further action until the correct fee is received. If a fee was received by the Department which is less than the amount required, the Department shall return the fee along with the written notification.

(c) Upon receipt of the proper application fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin.

(d) If the applicant does not submit the required fee within ten days of receipt of written notification, the Department shall either return the unprocessed application or arrange with the applicant for the pick up of the application.

(e) If an applicant submits an application fee in excess of the required fee, the permit processing time requirements of Sections 120.60(2) and 403.0876, F.S., shall begin upon receipt, and the Department shall refund to the applicant the amount received in excess of the required fee.

(6) Any substantial modification to a complete application shall require an additional processing fee determined pursuant to the schedule set forth in Rule 62-4.050, F.A.C., and shall restart the time requirements of Sections 120.60 and 403.0876, F.S. For purposes of this subsection, the term “substantial modification” shall mean a modification which is reasonably expected to lead to substantially different environmental impacts which require a detailed review.

(7) Modifications to existing permits proposed by the permittee which require substantial changes in the existing permit or require substantial evaluation by the Department of potential impacts of the proposed modifications shall require the same fee as a new application for the same time duration except for modification under Chapter 62-45, F.A.C.

[Rule 62-4.050, F.A.C.]

## APPENDIX TV-6, TITLE V CONDITIONS (version dated 06/23/06) (continued)

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3. Standards for Issuing or Denying Permits. Except as provided at Rule 62-213.460, F.A.C., the issuance of a permit does not relieve any person from complying with the requirements of Chapter 403, F.S., or Department rules.  
[Rule 62-4.070(7), F.A.C.]

4. Modification of Permit Conditions.

(1) For good cause and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions and on application of the permittee the Department may grant additional time. For the purpose of this section, good cause shall include, but not be limited to, any of the following: **(also, see Condition No. 38.)**

- (a) A showing that an improvement in effluent or emission quality or quantity can be accomplished because of technological advances without unreasonable hardship.
- (b) A showing that a higher degree of treatment is necessary to effect the intent and purpose of Chapter 403, F.S.
- (c) A showing of any change in the environment or surrounding conditions that requires a modification to conform to applicable air or water quality standards.
- (e) Adoption or revision of Florida Statutes, rules, or standards which require the modification of a permit condition for compliance.

(2) A permittee may request a modification of a permit by applying to the Department.

(3) A permittee may request that a permit be extended as a modification of the permit. Such a request must be submitted to the Department in writing before the expiration of the permit. Upon timely submittal of a request for extension, unless the permit automatically expires by statute or rule, the permit will remain in effect until final agency action is taken on the request. For construction permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that, upon completion, the extended permit will comply with the standards and conditions required by applicable regulation. For all other permits, an extension shall be granted if the applicant can demonstrate reasonable assurances that the extended permit will comply with the standards and conditions applicable to the original permit. A permit for which the permit application fee was prorated in accordance with Rule 62-4.050(4)(v), F.A.C., shall not be extended. In no event shall a permit be extended or remain in effect longer than the time limits established by statute or rule.

[Rule 62-4.080, F.A.C.]

5. Renewals. Prior to 180 days before the expiration of a permit issued pursuant to Chapter 62-213, F.A.C., the permittee shall apply for a renewal of a permit using forms incorporated by reference in the specific rule chapter for that kind of permit. A renewal application shall be timely and sufficient. If the application is submitted prior to 180 days before expiration of the permit, it will be considered timely and sufficient. If the renewal application is submitted at a later date, it will not be considered timely and sufficient unless it is submitted and made complete prior to the expiration of the operation permit. When the application for renewal is timely and sufficient, the existing permit shall remain in effect until the renewal application has been finally acted upon by the Department or, if there is court review of the Department's final agency action, until a later date is required by Section 120.60, F.S., provided that, for renewal of a permit issued pursuant to Chapter 62-213, F.A.C., the applicant complies with the requirements of Rules 62-213.420(1)(b)3. and 4., F.A.C.

[Rule 62-4.090, F.A.C.]

6. Suspension and Revocation.

(1) Permits shall be effective until suspended, revoked, surrendered, or expired and shall be subject to the provisions of Chapter 403, F.S., and rules of the Department.

(2) Failure to comply with pollution control laws and rules shall be grounds for suspension or revocation.

(3) A permit issued pursuant to Chapter 62-4, F.A.C., shall not become a vested property right in the permittee. The Department may revoke any permit issued by it if it finds that the permit holder or his agent:

- (a) Submitted false or inaccurate information in his application or operational reports.
- (b) Has violated law, Department orders, rules or permit conditions.
- (c) Has failed to submit operational reports or other information required by Department rules.
- (d) Has refused lawful inspection under Section 403.091, F.S.

(4) No revocation shall become effective except after notice is served by personal services, certified mail, or newspaper notice pursuant to Section 120.60(7), F.S., upon the person or persons named therein and a hearing held if requested within the time specified in the notice. The notice shall specify the provision of the law, or rule alleged to be violated, or the permit condition or Department order alleged to be violated, and the facts alleged to constitute a violation thereof.

[Rule 62-4.100, F.A.C.]

7. **Not federally enforceable. Financial Responsibility.** The Department may require an applicant to submit proof of financial responsibility and may require the applicant to post an appropriate bond to guarantee compliance with the law and Department rules. [Rule 62-4.110, F.A.C.]

8. **Transfer of Permits.**

(1) Within 30 days after the sale or legal transfer of a permitted facility, an "Application for Transfer of Permit" (DEP Form 62-1.201(1)) must be submitted to the Department. This form must be completed with the notarized signatures of both the permittee and the proposed new permittee. For air permits, an "Application for Transfer of Air Permit" (DEP Form 62-210.900(7)) shall be submitted.

(2) The Department shall approve the transfer of a permit unless it determines that the proposed new permittee cannot provide reasonable assurances that conditions of the permit will be met. The determination shall be limited solely to the ability of the new permittee to comply with the conditions of the existing permit, and it shall not concern the adequacy of these permit conditions. If the Department proposes to deny the transfer, it shall provide both the permittee and the proposed new permittee a written objection to such transfer together with notice of a right to request a Chapter 120, F.S., proceeding on such determination.

(3) Within 30 days of receiving a properly completed Application for Transfer of Permit form, the Department shall issue a final determination. The Department may toll the time for making a determination on the transfer by notifying both the permittee and the proposed new permittee that additional information is required to adequately review the transfer request. Such notification shall be served within 30 days of receipt of an Application for Transfer of Permit form, completed pursuant to Rule 62-4.120(1), F.A.C. If the Department fails to take action to approve or deny the transfer within 30 days of receipt of the completed Application for Transfer of Permit form, or within 30 days of receipt of the last item of timely requested additional information, the transfer shall be deemed approved.

(4) The permittee is encouraged to apply for a permit transfer prior to the sale or legal transfer of a permitted facility. However, the transfer shall not be effective prior to the sale or legal transfer.

(5) Until this transfer is approved by the Department, the permittee and any other person constructing, operating, or maintaining the permitted facility shall be liable for compliance with the terms of the permit. The permittee transferring the permit shall remain liable for corrective actions that may be required as a result of any violations occurring prior to the sale or legal transfer of the facility.

[Rule 62-4.120, F.A.C.]

9. **Plant Operation-Problems.** If the permittee is temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. (**also, see Condition No. 10.**)

[Rule 62-4.130, F.A.C.]

10. For purposes of notification to the Department pursuant to Condition No. 9., Condition No. 12.(8), and Rule 62-4.130, F.A.C., Plant Operation-Problems, "immediately" shall mean the same day, if during a workday (i.e., 8:00 a.m. - 5:00 p.m.), or the first business day after the incident, excluding weekends and holidays; and, for purposes of 40 CFR 70.6(a)(3)(iii)(B), "prompt" shall have the same meaning as "immediately". [**also, see Conditions Nos. 9. and 12.(8).**]

[40 CFR 70.6(a)(3)(iii)(B)]

11. **Not federally enforceable. Review.** Failure to request a hearing within 14 days of receipt of notice of proposed or final agency action on a permit application or as otherwise required in Chapter 62-103, F.A.C., shall be deemed a waiver of the right to an administrative hearing.

[Rule 62-4.150, F.A.C.]

12. **Permit Conditions.** All permits issued by the Department shall include the following general conditions:

(1) The terms, conditions, requirements, limitations and restrictions set forth in this permit, are "permit conditions" and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

(2) This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

(3) As provided in Subsections 403.987(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in this permit.

(4) This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

(5) This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.

(6) The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

(7) The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted to:

- (a) Have access to and copy any records that must be kept under conditions of the permit;
- (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit; and
- (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules. Reasonable time may depend on the nature of the concern being investigated.

(8) If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information: **(also, see Condition No. 10.)**

- (a) A description of and cause of noncompliance; and
- (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

(9) In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.111 and 403.73, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

(10) The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance; provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

(11) This permit is transferable only upon Department approval in accordance with Rule 62-4.120, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

(12) This permit or a copy thereof shall be kept at the work site of the permitted activity.

(14) The permittee shall comply with the following:

- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five (5) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- (c) Records of monitoring information shall include:
  1. The date, exact place, and time of sampling or measurements;
  2. The person responsible for performing the sampling or measurements;
  3. The dates analyses were performed;
  4. The person responsible for performing the analyses;

5. The analytical techniques or methods used;
6. The results of such analyses.

(15) When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.  
[Rules 62-4.160 and 62-213.440(1)(b), F.A.C.]

13. Construction Permits.

(1) No person shall construct any installation or facility which will reasonably be expected to be a source of air pollution without first applying for and receiving a construction permit from the Department unless exempted by statute or Department rule. In addition to the requirements of Chapter 62-4, F.A.C., applicants for a Department Construction Permit shall submit the following as applicable:

- (a) A completed application on forms furnished by the Department.
- (b) An engineering report covering:
  1. Plant description and operations,
  2. Types and quantities of all waste material to be generated whether liquid, gaseous or solid,
  3. Proposed waste control facilities,
  4. The treatment objectives,
  5. The design criteria on which the control facilities are based, and
  6. Other information deemed relevant.

Design criteria submitted pursuant to Rule 62-4.210(1)(b)5., F.A.C., shall be based on the results of laboratory and pilot-plant scale studies whenever such studies are warranted. The design efficiencies of the proposed waste treatment facilities and the quantities and types of pollutants in the treated effluents or emissions shall be indicated. Work of this nature shall be subject to the requirements of Chapter 471, F.S. Where confidential records are involved, certain information may be kept confidential pursuant to Section 403.111, F.S.

- (c) The owners' written guarantee to meet the design criteria as accepted by the Department and to abide by Chapter 403, F.S., and the rules of the Department as to the quantities and types of materials to be discharged from the installation. The owner may be required to post an appropriate bond or other equivalent evidence of financial responsibility to guarantee compliance with such conditions in instances where the owner's financial resources are inadequate or proposed control facilities are experimental in nature.

(2) The construction permit may contain conditions and an expiration date as determined by the Secretary or the Secretary's designee.

(3) When the Department issues a permit to construct, the permittee shall be allowed a period of time, specified in the permit, to construct, and to operate and test to determine compliance with Chapter 403, F.S., and the rules of the Department and, where applicable, to apply for and receive an operation permit. The Department may require tests and evaluations of the treatment facilities by the permittee at his/her expense.

[Rule 62-4.210, F.A.C.]

14. **Not federally enforceable.** Operation Permit for New Sources. To properly apply for an operation permit for new sources the applicant shall submit the appropriate fee and certification that construction was completed, noting any deviations from the conditions in the construction permit and test results where appropriate.

[Rule 62-4.220, F.A.C.]

Chapters 28-106 and 62-110, F.A.C.

15. Public Notice, Public Participation, and Proposed Agency Action. The permittee shall comply with all of the requirements for public notice, public participation, and proposed agency action pursuant to Rules 62-110.106 and 62-210.350, F.A.C.

[Rules 62-110.106, 62-210.350 and 62-213.430(1)(b), F.A.C.]

16. Administrative Hearing. The permittee shall comply with all of the requirements for a petition for administrative hearing or waiver of right to administrative proceeding pursuant to Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.

[Rules 28-106.201, 28-106.301 and 62-110.106, F.A.C.]

## APPENDIX TV-6, TITLE V CONDITIONS (version dated 06/23/06) (continued)

### Chapter 62-204, F.A.C.

17. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts or components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source.

[40 CFR 61; Rule 62-204.800, F.A.C.; and, Chapter 62-257, F.A.C.]

### Chapter 62-210, F.A.C.

18. Permits Required. Unless exempted from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., or unless specifically authorized by provision of Rule 62-210.300(4), F.A.C., or Rule 62-213.300, F.A.C., the owner or operator of any facility or emissions unit which emits or can reasonably be expected to emit any air pollutant shall obtain an appropriate permit from the Department prior to beginning construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, modification, or the addition of pollution control equipment; or to authorize initial or continued operation of the emissions unit; or to establish a PAL or Air Emissions Bubble. All emissions limitations, controls, and other requirements imposed by such permits shall be at least as stringent as any applicable limitations and requirements contained in or enforceable under the State Implementation Plan (SIP) or that are otherwise federally enforceable. Except as provided at Rule 62-213.460, F.A.C., issuance of a permit does not relieve the owner or operator of a facility or an emissions unit from complying with any applicable requirements, any emission limiting standards or other requirements of the air pollution rules of the Department or any other such requirements under federal, state, or local law.

#### (1) Air Construction Permits.

(a) Unless exempt from permitting pursuant to Rule 62-210.300(3)(a) or (b), F.A.C., or Rule 62-4.040, F.A.C., an air construction permit shall be obtained by the owner or operator of any proposed new, reconstructed, or modified facility or emissions unit, or any new pollution control equipment prior to the beginning of construction, reconstruction pursuant to 40 CFR 60.15 or 63.2, or modification of the facility or emissions unit or addition of the pollution control equipment; or to establish a PAL; in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-212, F.A.C., and Chapter 62-4, F.A.C. Except as provided under Rule 62-213.415, F.A.C., the owner or operator of any facility seeking to create or change an air emissions bubble shall obtain an air construction permit in accordance with all the applicable provisions of Chapter 62-210, F.A.C., Chapters 62-212 and 62-4, F.A.C. The construction permit shall be issued for a period of time sufficient to allow construction, reconstruction or modification of the facility or emissions unit or addition of the air pollution control equipment; and operation while the owner or operator of the new, reconstructed or modified facility or emissions unit or the new pollution control equipment is conducting tests or otherwise demonstrating initial compliance with the conditions of the construction permit.

(b) Notwithstanding the expiration of an air construction permit, all limitations and requirements of such permit that are applicable to the design and operation of the permitted facility or emissions unit shall remain in effect until the facility or emissions unit is permanently shut down, except for any such limitation or requirement that is obsolete by its nature (such as a requirement for initial compliance testing) or any such limitation or requirement that is changed in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C. Either the applicant or the Department can propose that certain conditions be considered obsolete. Any conditions or language in an air construction permit that are included for informational purposes only, if they are transferred to the air operation permit, shall be transferred for informational purposes only and shall not become enforceable conditions unless voluntarily agreed to by the permittee or otherwise required under Department rules.

1. Except for those limitations or requirements that are obsolete, all limitations and requirements of an air construction permit shall be included and identified in any air operation permit for the facility or emissions unit. The limitations and requirements included in the air operation permit can be changed, and thereby superseded, through the issuance of an air construction permit, federally enforceable state air operation permit, federally enforceable air general permit, or Title V air operation permit; provided, however, that:

- a. Any change that would constitute an administrative correction may be made pursuant to Rule 62-210.360, F.A.C.;
- b. Any change that would constitute a modification, as defined at Rule 62-210.200, F.A.C., shall be accomplished only through the issuance of an air construction permit; and
- c. Any change in a permit limitation or requirement that originates from a permit issued pursuant to 40 CFR 52.21, Rule 62-204.800(1)(d)2., F.A.C., Rule 62-212.400, F.A.C., Rule 62-212.500, F.A.C., or any former codification of Rule 62-212.400 or Rule 62-212.500, F.A.C., shall be accomplished only through the issuance of a new or revised air construction permit under Rule 62-204.800(1)(d)2., Rule 62-212.400 or Rule 62-212.500, F.A.C., as appropriate.

2. The force and effect of any change in a permit limitation or requirement made in accordance with the provisions of Rule 62-210.300(1)(b)1., F.A.C., shall be the same as if such change were made to the original air construction permit.

3. Nothing in Rule 62-210.300(1)(b), F.A.C., shall be construed as to allow operation of a facility or emissions unit without a valid air operation permit.



(2) Air Operation Permits. Upon expiration of the air operation permit for any existing facility or emissions unit, subsequent to construction or modification, or subsequent to the creation of or change to a bubble, and demonstration of compliance with the conditions of the construction permit for any new or modified facility or emissions unit, any air emissions bubble, or as otherwise provided in Chapter 62-210, F.A.C., or Chapter 62-213, F.A.C., the owner or operator of such facility or emissions unit shall obtain a renewal air operation permit, an initial air operation permit or air general permit, or an administrative correction or revision of an existing air operation permit, whichever is appropriate, in accordance with all applicable provisions of Chapter 62-210, F.A.C., Chapter 62-213, F.A.C., and Chapter 62-4, F.A.C.

(a) Minimum Requirements for All Air Operation Permits. At a minimum, a permit issued pursuant to this subsection shall:

1. Specify the manner, nature, volume and frequency of the emissions permitted, and the applicable emission limiting standards or performance standards, if any;
2. Require proper operation and maintenance of any pollution control equipment by qualified personnel, where applicable in accordance with the provisions of any operation and maintenance plan required by the air pollution rules of the Department.
3. Contain an effective date stated in the permit which shall not be earlier than the date final action is taken on the application and be issued for a period, beginning on the effective date, as provided below.
  - a. The operation permit for an emissions unit which is in compliance with all applicable rules and in operational condition, and which the owner or operator intends to continue operating, shall be issued or renewed for a five-year period, except that, for Title V sources subject to Rule 62-213.420(1)(a)1., F.A.C., operation permits shall be extended until 60 days after the due date for submittal of the facility's Title V permit application as specified in Rule 62-213.420(1)(a)1., F.A.C.
  - b. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for six months or more prior to the expiration date of the current operation permit, shall be renewed for a period not to exceed five years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided:
    - (i) the owner or operator of the emissions unit demonstrates to the Department that the emissions unit may need to be reactivated and used, or that it is the owner's or operator's intent to apply to the Department for a permit to construct a new emissions unit at the facility before the end of the extension period; and
    - (ii) the owner or operator of the emissions unit agrees to and is legally prohibited from providing the allowable emission permitted by the renewed permit as an emissions offset to any other person under Rule 62-212.500, F.A.C.; and
    - (iii) the emissions unit was operating in compliance with all applicable rules as of the time the source was shut down.
  - c. Except as provided in Rule 62-210.300(2)(a)3.d., F.A.C., the operation permit for an emissions unit which has been shut down for five years or more prior to the expiration date of the current operation permit shall be renewed for a maximum period not to exceed ten years from the date of shutdown, even if the emissions unit is not maintained in operational condition, provided the conditions given in Rule 62-210.300(2)(a)3.b., F.A.C., are met and the owner or operator demonstrates to the Department that failure to renew the permit would constitute a hardship, which may include economic hardship.
  - d. The operation permit for an electric utility generating unit on cold standby or long-term reserve shutdown shall be renewed for a five-year period, and additional five-year periods, even if the unit is not maintained in operational condition, provided the conditions given in Rules 62-210.300(2)(a)3.b.(i) through (iii), F.A.C., are met.
4. In the case of an emissions unit permitted pursuant to Rules 62-210.300(2)(a)3.b., c., and d., F.A.C., include reasonable notification and compliance testing requirements for reactivation of such emissions unit and provide that the owner or operator demonstrate to the Department prior to reactivation that such reactivation would not constitute reconstruction pursuant to Rule 62-204.800(8), F.A.C.

[Rules 62-210.300(1) & (2), F.A.C.]

19. **Not federally enforceable.** Notification of Startup. The owners or operator of any emissions unit or facility which has a valid air operation permit which has been shut down more than one year, shall notify the Department in writing of the intent to start up such emissions unit or facility, a minimum of 60 days prior to the intended startup date.

- (a) The notification shall include information as to the startup date, anticipated emission rates or pollutants released, changes to processes or control devices which will result in changes to emission rates, and any other conditions which may differ from the valid outstanding operation permit.

(b) If, due to an emergency, a startup date is not known 60 days prior thereto, the owner shall notify the Department as soon as possible after the date of such startup is ascertained.

[Rule 62-210.300(5), F.A.C.]

20. Emissions Unit Reclassification.

(a) Any emissions unit whose operation permit has been revoked as provided for in Chapter 62-4, F.A.C., shall be deemed permanently shut down for purposes of Rule 62-212.500, F.A.C. Any emissions unit whose permit to operate has expired without timely renewal or transfer may be deemed permanently shut down, provided, however, that no such emissions unit shall be deemed permanently shut down if, within 20 days after receipt of written notice from the Department, the emissions unit owner or operator demonstrates that the permit expiration resulted from inadvertent failure to comply with the requirements of Rule 62-4.090, F.A.C., and that the owner or operator intends to continue the emissions unit in operation, and either submits an application for an air operation permit or complies with permit transfer requirements, if applicable.

(b) If the owner or operator of an emissions unit which is so permanently shut down, applies to the Department for a permit to reactivate or operate such emissions unit, the emissions unit will be reviewed and permitted as a new emissions unit.

[Rule 62-210.300(6), F.A.C.]

21. Transfer of Air Permits.

(a) An air permit is transferable only after submission of an Application for Transfer of Air Permit (DEP Form 62-210.900(7)) and Department approval in accordance with Rule 62-4.120, F.A.C. For Title V permit transfers only, a complete application for transfer of air permit shall include the requirements of 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C. Within 30 days after approval of the transfer of permit, the Department shall update the permit by an administrative permit correction pursuant to Rule 62-210.360, F.A.C.

(b) For an air general permit, the provision of Rules 62-210.300(7)(a) and 62-4.120, F.A.C., do not apply. Thirty (30) days before using an air general permit, the new owner must submit an air general permit notification to the Department in accordance with Rule 62-210.300(4), F.A.C., or Rule 62-213.300(2)(b), F.A.C.

[Rule 62-210.300(7), F.A.C.]

22. Public Notice and Comment.

(1) Public Notice of Proposed Agency Action.

(a) A notice of proposed agency action on permit application, where the proposed agency action is to issue the permit, shall be published by any applicant for:

1. An air construction permit;
2. An air operation permit, permit renewal or permit revision subject to Rule 62-210.300(2)(b), F.A.C., (i.e., a FESOP), except as provided in Rule 62-210.300(2)(b)1.b., F.A.C.; or
3. An air operation permit, permit renewal, or permit revision subject to Chapter 62-213, F.A.C., except Title V air general permits or those permit revisions meeting the requirements of Rule 62-213.412(1), F.A.C.

(b) The notice required by Rule 62-210.350(1)(a), F.A.C., shall be published in accordance with all otherwise applicable provisions of Rule 62-110.106, F.A.C. A public notice under Rule 62-210.350(1)(a)1., F.A.C., for an air construction permit may be combined with any required public notice under Rule 62-210.350(1)(a)2. or 3., F.A.C., for air operation permits. If such notices are combined, the public notice must comply with the requirements for both notices.

(c) Except as otherwise provided at Rules 62-210.350(2), (5), and (6), F.A.C., each notice of intent to issue an air construction permit shall provide a 14-day period for submittal of public comments.

(2) Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment - Area Preconstruction Review.

(a) Before taking final agency action on a construction permit application for any proposed new or modified facility or emissions unit subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:

1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S., and the Department's analysis of the effect of the proposed construction or modification on ambient air quality, including the Department's preliminary determination of whether the permit should be approved or disapproved;
2. A 30-day period for submittal of public comments; and

3. A notice, by advertisement in a newspaper of general circulation in the county affected, specifying the nature and location of the proposed facility or emissions unit, whether BACT or LAER has been determined, the degree of PSD increment consumption expected, if applicable, and the location of the information specified in paragraph 1. above; and notifying the public of the opportunity for submitting comments and requesting a public hearing.
  - (b) The notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action.
  - (c) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall also be sent by the Department to the Regional Office of the U. S. Environmental Protection Agency and to all other state and local officials or agencies having cognizance over the location of such new or modified facility or emissions unit, including local air pollution control agencies, chief executives of city or county government, regional land use planning agencies, and any other state, Federal Land Manager, or Indian Governing Body whose lands may be affected by emissions from the new or modified facility or emissions unit.
  - (d) A copy of the notice provided for in Rule 62-210.350(2)(a)3., F.A.C., shall be displayed in the appropriate district, branch and local program offices.
  - (e) An opportunity for public hearing shall be provided in accordance with Chapter 120, F.S., and Rule 62-110.106, F.A.C.
  - (f) Any public comments received shall be made available for public inspection in the location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., is available and shall be considered by the Department in making a final determination to approve or deny the permit.
  - (g) The final determination shall be made available for public inspection at the same location where the information specified in Rule 62-210.350(2)(a)1., F.A.C., was made available.
  - (h) For a proposed new or modified emissions unit which would be located within 100 kilometers of any Federal Class I area or whose emissions may affect any Federal Class I area, and which would be subject to the preconstruction review requirements of Rule 62-212.400 or 62-212.500, F.A.C.:
    1. The Department shall mail or transmit to the Administrator a copy of the initial application for an air construction permit and notice of every action related to the consideration of the permit application.
    2. The Department shall mail or transmit to the Federal Land Manager of each affected Class I area a copy of any written notice of intent to apply for an air construction permit; the initial application for an air construction permit, including all required analyses and demonstrations; any subsequently submitted information related to the application; the preliminary determination and notice of proposed agency action on the permit application; and any petition for an administrative hearing regarding the application or the Department's proposed action. Each such document shall be mailed or transmitted to the Federal Land Manager within fourteen (14) days after its receipt by the Department.
- (3) Additional Public Notice Requirements for Facilities Subject to Operation Permits for Title V Sources.
- (a) Before taking final agency action to issue a new, renewed, or revised air operation permit subject to Chapter 62-213, F.A.C., the Department shall comply with all applicable provisions of Rule 62-110.106, F.A.C., and provide an opportunity for public comment which shall include as a minimum the following:
    1. A complete file available for public inspection in at least one location in the district affected which includes the information submitted by the owner or operator, exclusive of confidential records under Section 403.111, F.S.; and
    2. A 30-day period for submittal of public comments.
  - (b) The notice provided for in Rule 62-210.350(3)(a), F.A.C., shall be prepared by the Department and published by the applicant in accordance with all applicable provisions of Rule 62-110.106, F.A.C., except that the applicant shall cause the notice to be published no later than thirty (30) days prior to final agency action. If written comments received during the 30-day comment period on a draft permit result in the Department's issuance of a revised draft permit in accordance with Rule 62-213.430(1), F.A.C., the Department shall require the applicant to publish another public notice in accordance with Rule 62-210.350(1)(a), F.A.C.
  - (c) The notice shall identify:
    1. The facility;
    2. The name and address of the office at which processing of the permit occurs;
    3. The activity or activities involved in the permit action;
    4. The emissions change involved in any permit revision;
    5. The name, address, and telephone number of a Department representative from whom interested persons may obtain additional information, including copies of the permit draft, the application, and all relevant supporting materials, including any permit application, compliance plan, permit, monitoring report, and compliance statement required pursuant to Chapter 62-213, F.A.C. (except for information entitled to confidential treatment pursuant to Section 403.111, F.S.), and all other materials available to the Department that are relevant to the permit decision;

6. A brief description of the comment procedures required by Rule 62-210.350(3), F.A.C.;
7. The time and place of any hearing that may be held, including a statement of procedure to request a hearing (unless a hearing has already been scheduled); and
8. The procedures by which persons may petition the Administrator to object to the issuance of the proposed permit after expiration of the Administrator's 45-day review period.

[Rules 62-210.350(1) thru (3), F.A.C.]

23. Administrative Permit Corrections.

- (1) A facility owner shall notify the Department by letter of minor corrections to information contained in a permit. Such notifications shall include:
  - (a) Typographical errors noted in the permit;
  - (b) Name, address or phone number change from that in the permit;
  - (c) A change requiring more frequent monitoring or reporting by the permittee;
  - (d) A change in ownership or operational control of a facility, subject to the following provisions:
    1. The Department determines that no other change in the permit is necessary;
    2. The permittee and proposed new permittee have submitted an Application for Transfer of Air Permit, and the Department has approved the transfer pursuant to Rule 62-210.300(7), F.A.C.; and
    3. The new permittee has notified the Department of the effective date of sale or legal transfer.
  - (e) Changes listed at 40 CFR 72.83(a)(1), (2), (6), (9) and (10), adopted and incorporated by reference at Rule 62-204.800, F.A.C., and changes made pursuant to Rules 62-214.340(1) and (2), F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o;
  - (f) Changes listed at 40 CFR 72.83(a)(11) and (12), adopted and incorporated by reference at Rule 62-204.800, F.A.C., to Title V sources subject to emissions limitations or reductions pursuant to 42 USC ss. 7651-7651o, provided the notification is accompanied by a copy of any EPA determination concerning the similarity of the change to those listed at Rule 62-210.360(1)(e), F.A.C.; and
  - (g) Any other similar minor administrative change at the source.
- (2) Upon receipt of any such notification, the Department shall within 60 days correct the permit and provide a corrected copy to the owner.
- (3) After first notifying the owner, the Department shall correct any permit in which it discovers errors of the types listed at Rules 62-210.360(1)(a) and (b), F.A.C., and provide a corrected copy to the owner.
- (4) For Title V source permits, other than general permits, a copy of the corrected permit shall be provided to EPA and any approved local air program in the county where the facility or any part of the facility is located.

[Rule 62-210.360, F.A.C.]

24. Emissions Computation and Reporting.

- (1) Applicability. This rule sets forth required methodologies to be used by the owner or operator of a facility for computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for computing emissions for purposes of the reporting requirements of subsection 62-210.370(3) and paragraph 62-212.300(1)(e), F.A.C., or of any permit condition that requires emissions be computed in accordance with this rule. This rule is not intended to establish methodologies for determining compliance with the emission limitations of any air permit.
- (2) Computation of Emissions. For any of the purposes set forth in subsection 62-210.370(1), F.A.C., the owner or operator of a facility shall compute emissions in accordance with the requirements set forth in this subsection.
  - (a) Basic Approach. The owner or operator shall employ, on a pollutant-specific basis, the most accurate of the approaches set forth below to compute the emissions of a pollutant from an emissions unit; provided, however, that nothing in this rule shall be construed to require installation and operation of any continuous emissions monitoring system (CEMS), continuous parameter monitoring system (CPMS), or predictive emissions monitoring system (PEMS) not otherwise required by rule or permit, nor shall anything in this rule be construed to require performance of any stack testing not otherwise required by rule or permit.
    1. If the emissions unit is equipped with a CEMS meeting the requirements of paragraph 62-210.370(2)(b), F.A.C., the owner or operator shall use such CEMS to compute the emissions of the pollutant, unless the owner or operator demonstrates to the department that an alternative approach is more accurate because the CEMS represents still-emerging technology.
    2. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., but emissions of the pollutant can be computed pursuant to the mass balance methodology of paragraph 62-210.370(2)(c), F.A.C., the owner or operator shall use such methodology, unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
    3. If a CEMS is not available or does not meet the requirements of paragraph 62-210.370(2)(b), F.A.C., and emissions cannot be computed pursuant to the mass balance methodology, the owner or operator shall use an emission factor meeting the requirements of paragraph 62-210.370(2)(d), F.A.C., unless the owner or operator demonstrates to the department that an alternative approach is more accurate.
  - (b) Continuous Emissions Monitoring System (CEMS).
    1. An owner or operator may use a CEMS to compute emissions of a pollutant for purposes of this rule provided:
      - a. The CEMS complies with the applicable certification and quality assurance requirements of 40 CFR Part 60, Appendices B and F, or, for an acid rain unit, the certification and quality assurance requirements of 40 CFR Part 75, all adopted by reference at Rule 62-204.800, F.A.C.; or

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- b. The owner or operator demonstrates that the CEMS otherwise represents the most accurate means of computing emissions for purposes of this rule.
  2. Stack gas volumetric flow rates used with the CEMS to compute emissions shall be obtained by the most accurate of the following methods as demonstrated by the owner or operator:
    - a. A calibrated flowmeter that records data on a continuous basis, if available; or
    - b. The average flow rate of all valid stack tests conducted during a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
  3. The owner or operator may use CEMS data in combination with an appropriate f-factor, heat input data, and any other necessary parameters to compute emissions if such method is demonstrated by the owner or operator to be more accurate than using a stack gas volumetric flow rate as set forth at subparagraph 62-210.370(2)(b)2., F.A.C., above.
- (c) Mass Balance Calculations.
1. An owner or operator may use mass balance calculations to compute emissions of a pollutant for purposes of this rule provided the owner or operator:
    - a. Demonstrates a means of validating the content of the pollutant that is contained in or created by all materials or fuels used in or at the emissions unit; and
    - b. Assumes that the emissions unit emits all of the pollutant that is contained in or created by any material or fuel used in or at the emissions unit if it cannot otherwise be accounted for in the process or in the capture and destruction of the pollutant by the unit's air pollution control equipment.
  2. Where the vendor of a raw material or fuel which is used in or at the emissions unit publishes a range of pollutant content from such material or fuel, the owner or operator shall use the highest value of the range to compute the emissions, unless the owner or operator demonstrates using site-specific data that another content within the range is more accurate.
  3. In the case of an emissions unit using coatings or solvents, the owner or operator shall document, through purchase receipts, records and sales receipts, the beginning and ending VOC inventories, the amount of VOC purchased during the computational period, and the amount of VOC disposed of in the liquid phase during such period.
- (d) Emission Factors.
1. An owner or operator may use an emission factor to compute emissions of a pollutant for purposes of this rule provided the emission factor is based on site-specific data such as stack test data, where available, unless the owner or operator demonstrates to the department that an alternative emission factor is more accurate. An owner or operator using site-specific data to derive an emission factor, or set of factors, shall meet the following requirements.
    - a. If stack test data are used, the emission factor shall be based on the average emissions per unit of input, output, or gas volume, whichever is appropriate, of all valid stack tests conducted during at least a five-year period encompassing the period over which the emissions are being computed, provided all stack tests used shall represent the same operational and physical configuration of the unit.
    - b. Multiple emission factors shall be used as necessary to account for variations in emission rate associated with variations in the emissions unit's operating rate or operating conditions during the period over which emissions are computed.
    - c. The owner or operator shall compute emissions by multiplying the appropriate emission factor by the appropriate input, output or gas volume value for the period over which the emissions are computed. The owner or operator shall not compute emissions by converting an emission factor to pounds per hour and then multiplying by hours of operation, unless the owner or operator demonstrates that such computation is the most accurate method available.
  2. If site-specific data are not available to derive an emission factor, the owner or operator may use a published emission factor directly applicable to the process for which emissions are computed. If no directly-applicable emission factor is available, the owner or operator may use a factor based on a similar, but different, process.
- (e) Accounting for Emissions During Periods of Missing Data from CEMS, PEMS, or CPMS. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of missing data from CEMS, PEMS, or CPMS using other site-specific data to generate a reasonable estimate of such emissions.
- (f) Accounting for Emissions During Periods of Startup and Shutdown. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit.
- (g) Fugitive Emissions. In computing the emissions of a pollutant from a facility or emissions unit, the owner or operator shall account for the fugitive emissions of the pollutant, to the extent quantifiable, associated with such facility or emissions unit.
- (h) Recordkeeping. The owner or operator shall retain a copy of all records used to compute emissions pursuant to this rule for a period of five years from the date on which such emissions information is submitted to the department for any regulatory purpose.
- (3) Annual Operating Report for Air Pollutant Emitting Facility.
- (a) The Annual Operating Report for Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) shall be completed each year.
  - (c) The annual operating report shall be submitted to the appropriate Department of Environmental Protection (DEP) division, district or DEP-approved local air pollution control program office by March 1 of the following year.
  - (d) Beginning with 2007 annual emissions, emissions shall be computed in accordance with the provisions of Rule 62-210.370(2), F.A.C., for purposes of the annual operating report.

[Rules 62-210.370(1), (2) and (3)(a), (c) & (d), F.A.C.]

## APPENDIX IV-6, TITLE V CONDITIONS (version dated 06/23/06) (continued)

25. Circumvention. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly.

[Rule 62-210.650, F.A.C.]

26. Forms and Instructions. The forms used by the Department in the stationary source control program are adopted and incorporated by reference in this section. The forms are listed by rule number, which is also the form number, with the subject, title and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by accessing the Division's website at [www.dep.state.fl.us/air](http://www.dep.state.fl.us/air). The requirement of Rule 62-4.050(2), F.A.C., to file application forms in quadruplicate is waived if an air permit application is submitted using the Department's electronic application form.

(1) Application for Air Permit - Long Form, Form and Instructions (Effective 02-02-2006).

(a) Acid Rain Part, Form and Instructions (Effective 06-16-2003).

1. Repowering Extension Plan, Form and Instructions (Effective 07/01/1995).
2. New Unit Exemption, Form and Instructions (Effective 04/16/2001).
3. Retired Unit Exemption, Form and Instructions (Effective 04/16/2001).
4. Phase II NOx Compliance Plan, Form and Instructions (Effective 01/06/1998).
5. Phase II NOx Averaging Plan, Form (Effective 01/06/1998).

(b) Reserved.

(5) Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions (Effective 02/11/1999).

(7) Application for Transfer of Air Permit – Title V Source, (Effective 04/16/2001).

[Rule 62-210.900, F.A.C.]

### Chapter 62-213, F.A.C.

27. Responsible Official.

(1) Each Title V source must identify a responsible official on each application for Title V permit, permit revision, and permit renewal. For sources with only one responsible official, this is how the Title V source designates the responsible official.

(2) Each Title V source may designate more than one responsible official, provided a primary responsible official is designated as responsible for the certifications of all other designated responsible officials. Any action taken by the primary responsible official shall take precedence over any action taken by any other designated responsible official.

(3) Any facility initially designating more than one responsible official or changing the list of responsible officials must submit a Responsible Official Notification Form (DEP Form No. 62-213.900(8)) designating all responsible officials for a Title V source, stating which responsible official is the primary responsible official, and providing an effective date for any changes to the list of responsible officials. Each individual listed on the Responsible Official Notification Form must meet the definition of responsible official given at Rule 62-210.200, F.A.C.

(4) A Title V source with only one responsible official shall submit DEP Form No. 62-213.900(8) for a change in responsible official.

(5) No person shall take any action as a responsible official at a Title V source unless designated a responsible official as required by this rule, except that the existing responsible official of any Title V source which has a change in responsible official during the term of the permit and before the effective date of this rule may continue to act as a responsible official until the first submittal of DEP Form No. 62-213.900(8) or the next application for Title V permit, permit revision or permit renewal, whichever comes first.

[Rules 62-213.202(1) thru (5), F.A.C.]

28. Annual Emissions Fee. Each Title V source permitted to operate in Florida must pay between January 15 and March 1 of each year, upon written notice from the Department, an annual emissions fee in an amount determined as set forth in Rule 62-213.205(1), F.A.C.

(1)(g) If the Department has not received the fee by February 15 of the year following the calendar year for which the fee is calculated, the Department will send the primary responsible official of the Title V source a written warning of the consequences for failing to pay the fee by March 1. If the fee is not postmarked by March 1 of the year due, the Department shall impose, in addition to the fee, a penalty of 50 percent of the amount of the fee unpaid plus interest on such amount computed in accordance with Section 220.807, F.S. If the Department determines that a submitted fee was inaccurately calculated, the Department shall either refund to the permittee any amount overpaid or notify the permittee of any amount underpaid. The Department shall not impose a penalty or interest on any amount underpaid, provided that the permittee has timely remitted payment of at least 90 percent of the amount determined to be due and remits full payment within 60 days after receipt of notice of the amount underpaid. The Department shall waive the collection of underpayment and shall not refund overpayment of the fee, if the amount is less than 1 percent of the fee due, up to \$50.00. The Department shall make every effort to provide a timely assessment of the adequacy of the submitted fee. Failure to

pay timely any required annual emissions fee, penalty, or interest constitutes grounds for permit revocation pursuant to Rule 62-4.100, F.A.C.

(1)(i) Any documentation of actual hours of operation, actual material or heat input, actual production amount, or actual emissions used to calculate the annual emissions fee shall be retained by the owner for a minimum of five (5) years and shall be made available to the Department upon request.

(1)(j) A completed DEP Form 62-213.900(1), "Major Air Pollution Source Annual Emissions Fee Form", must be submitted by a responsible official with the annual emissions fee.

[Rules 62-213.205, (1)(g), (1)(i) & (1)(j), F.A.C.]

29. Reserved.

30. Reserved.

31. Air Operation Permit Fees. No permit application processing fee, renewal fee, modification fee or amendment fee is required for an operation permit for a Title V source.

[Rule 62-213.205(4), F.A.C.]

32. Permits and Permit Revisions Required. All Title V sources are subject to the permit requirements of Chapter 62-213, F.A.C., except those Title V sources permissible pursuant to Rule 62-213.300, F.A.C., Title V Air General Permits.

(1) No Title V source may operate except in compliance with Chapter 62-213, F.A.C.

(2) Except as provided in Rule 62-213.410, F.A.C., no source with a permit issued under the provisions of Chapter 62-213, F.A.C., shall make any changes in its operation without first applying for and receiving a permit revision if the change meets any of the following:

- (a) Constitutes a modification;
- (b) Violates any applicable requirement;
- (c) Exceeds the allowable emissions of any air pollutant from any unit within the source;
- (d) Contravenes any permit term or condition for monitoring, testing, recordkeeping, reporting or of a compliance certification requirement;
- (e) Requires a case-by-case determination of an emission limitation or other standard or a source specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, F.A.C.;
- (f) Violates a permit term or condition which the source has assumed for which there is no corresponding underlying applicable requirement to which the source would otherwise be subject;
- (g) Results in the trading of emissions among units within a source except as specifically authorized pursuant to Rule 62-213.415, F.A.C.;
- (h) Results in the change of location of any relocatable facility identified as a Title V source pursuant to paragraph (a)-(e), (g) or (h) of the definition of "major source of air pollution" at Rule 62-210.200, F.A.C.;
- (i) Constitutes a change at an Acid Rain Source under the provisions of 40 CFR 72.81(a)(1), (2), or (3), (b)(1) or (b)(3), hereby incorporated by reference;
- (j) Constitutes a change in a repowering plan, nitrogen oxides averaging plan, or nitrogen oxides compliance deadline extension at an Acid Rain Source;

[Rules 62-213.400(1) & (2), F.A.C.]

33. Changes Without Permit Revision. Title V sources having a valid permit issued pursuant to Chapter 62-213, F.A.C., may make the following changes without permit revision, provided that sources shall maintain source logs or records to verify periods of operation:

- (1) Permitted sources may change among those alternative methods of operation;
- (2) A permitted source may implement operating changes, as defined in Rule 62-210.200, F.A.C., after the source submits any forms required by any applicable requirement and provides the Department and EPA with at least 7 days written notice prior to implementation. The source and the Department shall attach each notice to the relevant permit;
  - (a) The written notice shall include the date on which the change will occur, and a description of the change within the permitted source, the pollutants emitted and any change in emissions, and any term or condition becoming applicable or no longer applicable as a result of the change;
  - (b) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes;
- (3) Permitted sources may implement changes involving modes of operation only in accordance with Rule 62-213.415, F.A.C.

[Rule 62-213.410, F.A.C.]

34. Immediate Implementation Pending Revision Process.

(1) Those permitted Title V sources making any change that constitutes a modification pursuant to the definition of modification at Rule 62-210.200, F.A.C., but which would not constitute a modification pursuant to 42 USC 7412(a) or to 40 CFR 52.01, 60.2, or 61.15, adopted and incorporated by reference at Rule 62-204.800, F.A.C., may implement such change prior to final issuance of a permit revision, provided the change:

- (a) Does not violate any applicable requirement;
- (b) Does not contravene any permit term or condition for monitoring, testing, recordkeeping or reporting, or any compliance certification requirement;
- (c) Does not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination of ambient impacts, or a visibility or increment analysis under the provisions of Chapter 62-212 or 62-296, F.A.C.;
- (d) Does not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and which the source has assumed to avoid an applicable requirement to which the source would otherwise be subject including any federally enforceable emissions cap or federally enforceable alternative emissions limit.

(2) A Title V source may immediately implement such changes after they have been incorporated into the terms and conditions of a new or revised construction permit issued pursuant to Chapter 62-212, F.A.C., and after the source provides to EPA, the Department, each affected state and any approved local air program having geographic jurisdiction over the source, a copy of the source's application for operation permit revision. The Title V source may conform its application for construction permit to include all information required by Rule 62-213.420, F.A.C., in lieu of submitting separate application forms.

(3) The Department shall process the application for operation permit revision in accordance with the provisions of Chapter 62-213, F.A.C., except that the Department shall issue a draft permit revision or a determination to deny the revision within 60 days of receipt of a complete application for operation permit revision or, if the Title V source has submitted a construction permit application conforming to the requirements of Rule 62-213.420, F.A.C., the Department shall issue a draft permit or a determination to deny the revision at the same time the Department issues its determination on issuance or denial of the construction permit application. The Department shall not take final action on the operation permit revision application until all the requirements of Rules 62-213.430(1)(a), (c), (d), and (e), F.A.C., have been complied with.

(4) Pending final action on the operation permit revision application, the source shall implement the changes in accordance with the terms and conditions of the source's new or revised construction permit. If any terms and conditions of the new or revised construction permit have not been complied with prior to the issuance of the draft operation permit revision, the operation permit shall include a compliance plan in accordance with the provisions of Rule 62-213.440(2), F.A.C.

(5) The permit shield described in Rule 62-213.460, F.A.C., shall not apply to such changes until after the Department takes final action to issue the operation permit revision.

(6) If the Department denies the source's application for operation permit revision, the source shall cease implementation of the proposed changes.

[Rule 62-213.412, F.A.C.]

35. Permit Applications.

(1) Duty to Apply. For each Title V source, the owner or operator shall submit a timely and complete permit application in compliance with the requirements of Rules 62-213.420, F.A.C., and Rules 62-4.050(1) through (3), F.A.C.

(a) Timely Application.

3. For purposes of permit renewal, a timely application is one that is submitted in accordance with Rule 62-4.090, F.A.C.

(b) Complete Application.

1. Any applicant for a Title V permit, permit revision or permit renewal must submit an application on DEP Form No. 62-210.900(1), which must include all the information specified by Rule 62-213.420(3), F.A.C., except that an application for permit revision must contain only that information related to the proposed change(s) from the currently effective Title V permit and any other requirements that become applicable at the time of application. The applicant shall include information concerning fugitive emissions and stack emissions in the application. Each application for permit, permit revision or permit renewal shall be certified by a responsible official in accordance with Rule 62-213.420(4), F.A.C.

2. For those applicants submitting initial permit applications pursuant to Rule 62-213.420(1)(a)1., F.A.C., a complete application shall be an application that substantially addresses all the information required by the application form number 62-210.900(1), and such applications shall be deemed complete within sixty days of receipt of a signed and certified application unless the Department notifies the applicant of incompleteness within that time. For all other applicants, the applications shall be deemed complete sixty days after receipt, unless the Department, within sixty days after receipt of a signed application for permit, permit revision or permit renewal, requests additional documentation or information needed



to process the application. An applicant making timely and complete application for permit, or timely application for permit renewal as described by Rule 62-4.090(1), F.A.C., shall continue to operate the source under the authority and provisions of any existing valid permit or Florida Electrical Power Plant Siting Certification, and in accordance with applicable requirements of the Acid Rain Program, until the conclusion of proceedings associated with its permit application or until the new permit becomes effective, whichever is later, provided the applicant complies with all the provisions of Rules 62-213.420(1)(b)3. and 4., F.A.C. Failure of the Department to request additional information within sixty days of receipt of a properly signed application shall not impair the Department's ability to request additional information pursuant to Rules 62-213.420(1)(b)3. and 4., F.A.C.

3. For those permit applications submitted pursuant to the provisions of Rule 62-213.420(1)(a)1., F.A.C., the Department shall notify the applicant if the Department becomes aware at any time during processing of the application that the application contains incorrect or incomplete information. The applicant shall submit the corrected or supplementary information to the Department within ninety days unless the applicant has requested and been granted additional time to submit the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days or such additional time as requested and granted shall render the application incomplete.

4. For all applications other than those addressed at Rule 62-213.420(1)(b)3., F.A.C., should the Department become aware, during processing of any application that the application contains incorrect information, or should the Department become aware, as a result of comment from an affected State, an approved local air program, EPA, or the public that additional information is needed to evaluate the application, the Department shall notify the applicant within 30 days. When an applicant becomes aware that an application contains incorrect or incomplete information, the applicant shall submit the corrected or supplementary information to the Department. If the Department notifies an applicant that corrected or supplementary information is necessary to process the permit, and requests a response, the applicant shall provide the information to the Department within ninety days of the Department request unless the applicant has requested and been granted additional time to submit the information or, the applicant shall, within ninety days, submit a written request that the Department process the application without the information. Failure of an applicant to submit corrected or supplementary information requested by the Department within ninety days, or such additional time as requested and granted, or to demand in writing within ninety days that the application be processed without the information shall render the application incomplete. Nothing in this section shall limit any other remedies available to the Department.

[Rules 62-213.420(1)(a)3. and 62-213.420(1)(b)1., 2., 3. & 4., F.A.C.]

36. Confidential Information. Whenever an applicant submits information under a claim of confidentiality pursuant to Section 403.111, F.S., the applicant shall also submit a copy of all such information and claim directly to EPA. (also, see Condition No. 50.) [Rule 62-213.420(2), F.A.C.]

37. Standard Application Form and Required Information. Applications shall be submitted under Chapter 62-213, F.A.C., on forms provided by the Department and adopted by reference in Rule 62-210.900(1), F.A.C. The information as described in Rule 62-210.900(1), F.A.C., shall be included for the Title V source and each emissions unit. An application must include information sufficient to determine all applicable requirements for the Title V source and each emissions unit and to evaluate a fee amount pursuant to Rule 62-213.205, F.A.C. [Rule 62-213.420(3), F.A.C.]

38. a. Permit Renewal and Expiration. Permits being renewed are subject to the same requirements that apply to permit issuance at the time of application for renewal. Permit renewal applications shall contain that information identified in Rules 62-210.900(1) and 62-213.420(3), F.A.C. Unless a Title V source submits a timely application for permit renewal in accordance with the requirements of Rule 62-4.090(1), F.A.C., the existing permit shall expire and the source's right to operate shall terminate. No Title V permit will be issued for a new term except through the renewal process.

b. Permit Revision Procedures. Permit revisions shall meet all requirements of Chapter 62-213, F.A.C., including those for content of applications, public participation, review by approved local programs and affected states, and review by EPA, as they apply to permit issuance and permit renewal, except that permit revisions for those activities implemented pursuant to Rule 62-213.412, F.A.C., need not meet the requirements of Rule 62-213.430(1)(b), F.A.C. The Department shall require permit revision in accordance with the provisions of Rule 62-4.080, F.A.C., and 40 CFR 70.7(f), whenever any source becomes subject to any condition listed at 40

## APPENDIX TV-6, TITLE V CONDITIONS (version dated 06/23/06) (continued)

CFR 70.7(f)(1), hereby adopted and incorporated by reference. The below requirements from 40 CFR 70.7(f) are adopted and incorporated by reference in Rule 62-213.430(4), F.A.C.:

o 40 CFR 70.7(f): Reopening for Cause. (also, see Condition No. 4.)

(1) This section contains provisions from 40 CFR 70.7(f) that specify the conditions under which a Title V permit shall be reopened prior to the expiration of the permit. A Title V permit shall be reopened and revised under any of the following circumstances:

(i) Additional applicable requirements under the Act become applicable to a major Part 70 source with a remaining permit term of 3 or more years. Such a reopening shall be completed not later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii).

(ii) Additional requirements (including excess emissions requirements) become applicable to an affected source under the acid rain program. Upon approved by the Administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

(iii) The permitting authority or EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.

(iv) The Administrator or the permitting authority determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

(2) Proceedings to reopen and issue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Such reopening shall be made as expeditiously as practicable.

(3) Reopenings under 40 CFR 70.7(f)(1) shall not be initiated before a notice of such intent is provided to the Part 70 source by the permitting authority at least 30 days in advance of the date that the permit is to be reopened, except that the permitting authority may provide a shorter time period in the case of an emergency.

[Rules 62-213.430(3) & (4), F.A.C.; and, 40 CFR 70.7(f)]

39. Insignificant Emissions Units or Pollutant-Emitting Activities.

(a) All requests for determination of insignificant emissions units or activities made pursuant to Rule 62-213.420(3)(n), F.A.C., shall be processed in conjunction with the permit, permit renewal or permit revision application submitted pursuant to Chapter 62-213, F.A.C. Insignificant emissions units or activities shall be approved by the Department consistent with the provisions of Rule 62-4.040(1)(b), F.A.C. Emissions units or activities which are added to a Title V source after issuance of a permit under Chapter 62-213, F.A.C., shall be incorporated into the permit at its next renewal, provided such emissions units or activities have been exempted from the requirement to obtain an air construction permit and also qualify as insignificant pursuant to Rule 62-213.430(6), F.A.C.

(b) An emissions unit or activity shall be considered insignificant if all of the following criteria are met:

1. Such unit or activity would be subject to no unit-specific applicable requirement;
2. Such unit or activity, in combination with other units or activities proposed as insignificant, would not cause the facility to exceed any major source threshold(s) as defined in Rule 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s);
3. Such unit or activity would not emit or have the potential to emit:
  - a. 500 pounds per year or more of lead and lead compounds expressed as lead;
  - b. 1,000 pounds per year or more of any hazardous air pollutant;
  - c. 2,500 pounds per year or more of total hazardous air pollutants; or
  - d. 5.0 tons per year or more of any other regulated pollutant.

[Rule 62-213.430(6), F.A.C.]

40. Permit Duration. Permits for sources subject to the Federal Acid Rain Program shall be issued for terms of five years, provided that the initial Acid Rain Part may be issued for a term less than five years where necessary to coordinate the term of such part with the term of a Title V permit to be issued to the source. Operation permits for Title V sources may not be extended as provided in Rule 62-4.080(3), F.A.C., if such extension will result in a permit term greater than five years.

[Rule 62-213.440(1)(a), F.A.C.]

41. Monitoring Information. All records of monitoring information shall specify the date, place, and time of sampling or measurement and the operating conditions at the time of sampling or measurement, the date(s) analyses were performed, the company or entity that performed the analyses, the analytical techniques or methods used, and the results of such analyses.

[Rule 62-213.440(1)(b)2.a., F.A.C.]

42. Retention of Records. Retention of records of all monitoring data and support information shall be for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

[Rule 62-213.440(1)(b)2.b., F.A.C.]

43. Monitoring Reports. The permittee shall submit reports of any required monitoring at least every six (6) months. All instances of deviations from permit requirements must be clearly identified in such reports.

[Rule 62-213.440(1)(b)3.a., F.A.C.]

44. Deviation from Permit Requirements Reports. The permittee shall report in accordance with the requirements of Rules 62-210.700(6) and 62-4.130, F.A.C., deviations from permit requirements, including those attributable to upset conditions as defined in the permit. Reports shall include the probable cause of such deviations, and any corrective actions or preventive measures taken.

[Rule 62-213.440(1)(b)3.b., F.A.C.]

45. Reports. All reports shall be accompanied by a certification by a responsible official, pursuant to Rule 62-213.420(4), F.A.C.

[Rule 62-213.440(1)(b)3.c., F.A.C.]

46. If any portion of the final permit is invalidated, the remainder of the permit shall remain in effect.

[Rule 62-213.440(1)(d)1., F.A.C.]

47. It shall not be a defense for a permittee in an enforcement action that maintaining compliance with any permit condition would necessitate halting of or reduction of the source activity.

[Rule 62-213.440(1)(d)3., F.A.C.]

48. Any Title V source shall comply with all the terms and conditions of the existing permit until the Department has taken final action on any permit renewal or any requested permit revision, except as provided at Rule 62-213.412(2), F.A.C.

[Rule 62-213.440(1)(d)4., F.A.C.]

49. A situation arising from sudden and unforeseeable events beyond the control of the source which causes an exceedance of a technology-based emissions limitation because of unavoidable increases in emissions attributable to the situation and which requires immediate corrective action to restore normal operation, shall be an affirmative defense to an enforcement action in accordance with the provisions and requirements of 40 CFR 70.6(g)(2) and (3), hereby adopted and incorporated by reference.

[Rule 62-213.440(1)(d)5., F.A.C.]

50. Confidentiality Claims. Any permittee may claim confidentiality of any data or other information by complying with Rule 62-213.420(2), F.A.C. (**also, see Condition No. 36.**)

[Rule 62-213.440(1)(d)6., F.A.C.]

51. Statement of Compliance. (a)2. The permittee shall submit a Statement of Compliance with all terms and conditions of the permit that includes all the provisions of 40 CFR 70.6(c)(5)(iii), incorporated by reference at Rule 62-204.800, F.A.C., using DEP Form No. 62-213.900(7). Such statement shall be accompanied by a certification in accordance with Rule 62-213.420(4), F.A.C., for Title V requirements and with Rule 62-214.350, F.A.C., for Acid Rain requirements. Such statements shall be submitted (postmarked) to the Department and EPA:

a. Annually, within 60 days after the end of each calendar year during which the Title V permit was effective, or more frequently if specified by Rule 62-213.440(2), F.A.C., or by any other applicable requirement; and

b. Within 60 days after submittal of a written agreement for transfer of responsibility as required pursuant to 40 CFR 70.7(d)(1)(iv), adopted and incorporated by reference at Rule 62-204.800, F.A.C., or within 60 days after permanent shutdown of a facility permitted under Chapter 62-213, F.A.C.; provided that, in either such case, the reporting period shall be the portion of the calendar year the permit was effective up to the date of transfer of responsibility or permanent facility shutdown, as applicable.

3. In lieu of individually identifying all applicable requirements and specifying times of compliance with, non-compliance with, and deviation from each, the responsible official may use DEP Form No. 62-213.900(7) as such statement of compliance so long as the responsible official identifies all reportable deviations from and all instances of non-compliance with any applicable requirements and includes all information required by the federal regulation relating to each reportable deviation and instance of non-compliance.

## APPENDIX TV-6, TITLE V CONDITIONS (version dated 06/23/06) (continued)

(b) The responsible official may treat compliance with all other applicable requirements as a surrogate for compliance with Rule 62-296.320(2), Objectionable Odor Prohibited.

[Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

52. Permit Shield. Except as provided in Chapter 62-213, F.A.C., compliance with the terms and conditions of a permit issued pursuant to Chapter 62-213, F.A.C., shall, as of the effective date of the permit, be deemed compliance with any applicable requirements in effect, provided that the source included such applicable requirements in the permit application. Nothing in Rule 62-213.460, F.A.C., or in any permit shall alter or affect the ability of EPA or the Department to deal with an emergency, the liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance, or the requirements of the Federal Acid Rain Program.

[Rule 62-213.460, F.A.C.]

53. Forms and Instructions. The forms used by the Department in the Title V source operation program are adopted and incorporated by reference in Rule 62-213.900, F.A.C. The form is listed by rule number, which is also the form number, and with the subject, title, and effective date. Copies of forms may be obtained by writing to the Department of Environmental Protection, Division of Air Resource Management, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, or by contacting the appropriate permitting authority.

(1) Major Air Pollution Source Annual Emissions Fee Form. (Effective 01/03/2001)

(7) Statement of Compliance Form. (Effective 06/02/2002)

(8) Responsible Official Notification Form. (Effective 06/02/2002)

[Rule 62-213.900, F.A.C.: Forms (1), (7) and (8)]

### Chapter 62-256, F.A.C.

54. **Not federally enforceable.** Open Burning. This permit does not authorize any open burning nor does it constitute any waiver of the requirements of Chapter 62-256, F.A.C. Source shall comply with Chapter 62-256, F.A.C., for any open burning at the source.

[Chapter 62-256, F.A.C.]

### Chapter 62-281, F.A.C.

55. Refrigerant Requirements. Any facility having refrigeration equipment, including air conditioning equipment, which uses a Class I or II substance (listed at 40 CFR 82, Subpart A, Appendices A and B), and any facility which maintains, services, or repairs motor vehicles using a Class I or Class II substance as refrigerant must comply with all requirements of 40 CFR 82, Subparts B and F, and with Rule 62-281.100, F.A.C. Those requirements include the following restrictions:

(1) Any facility having any refrigeration equipment normally containing 50 (fifty) pounds of refrigerant, or more, must keep servicing records documenting the date and type of all service and the quantity of any refrigerant added pursuant to 40 CFR 82.166;

(2) No person repairing or servicing a motor vehicle may perform any service on a motor vehicle air conditioner (MVAC) involving the refrigerant for such air conditioner unless the person has been properly trained and certified as provided at 40 CFR 82.34 and 40 CFR 82.40, and properly uses equipment approved pursuant to 40 CFR 82.36 and 40 CFR 82.38, and complies with 40 CFR 82.42;

(3) No person may sell or distribute, or offer for sale or distribution, any substance listed as a Class I or Class II substance at 40 CFR 82, Subpart A, Appendices A and B, except in compliance with Rule 62-281.100, F.A.C., and 40 CFR 82.34(b), 40 CFR 82.42, and/or 40 CFR 82.166;

(4) No person maintaining, servicing, repairing, or disposing of appliances may knowingly vent or otherwise release into the atmosphere any Class I or Class II substance used as a refrigerant in such equipment and no other person may open appliances (except MVACs as defined at 40 CFR 82.152) for service, maintenance or repair unless the person has been properly trained and certified pursuant to 40 CFR 82.161 and unless the person uses equipment certified for that type of appliance pursuant to 40 CFR 82.158 and unless the person observes the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;

(5) No person may dispose of appliances (except small appliances, as defined at 40 CFR 82.152) without using equipment certified for that type of appliance pursuant to 40 CFR 82.158 and without observing the practices set forth at 40 CFR 82.156 and 40 CFR 82.166;

(6) No person may recover refrigerant from small appliances, MVACs and MVAC-like appliances (as defined at 40 CFR 82.152), except in compliance with the requirements of 40 CFR 82, Subpart F.

[40 CFR 82; and, Chapter 62-281, F.A.C. (**Chapter 62-281, F.A.C., is not federally enforceable**)]

Chapter 62-296, F.A.C.

56. Industrial, Commercial, and Municipal Open Burning Prohibited. Open burning in connection with industrial, commercial, or municipal operations is prohibited, except when:

- (a) Open burning is determined by the Department to be the only feasible method of operation and is authorized by an air permit issued pursuant to Chapter 62-210 or 62-213, F.A.C.; or
- (b) An emergency exists which requires immediate action to protect human health and safety; or
- (c) A county or municipality would use a portable air curtain incinerator to burn yard trash generated by a hurricane, tornado, fire or other disaster and the air curtain incinerator would otherwise be operated in accordance with the permitting exemption criteria of Rule 62-210.300(3), F.A.C.

[Rule 62-296.320(3), F.A.C.]

57. Unconfined Emissions of Particulate Matter.

(4)(c)1. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.

3. Reasonable precautions include the following:

- a. Paving and maintenance of roads, parking areas and yards.
- b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- e. Landscaping or planting of vegetation.
- f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- g. Confining abrasive blasting where possible.
- h. Enclosure or covering of conveyor systems.

4. In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

[Rules 62-296.320(4)(c)1., 3., & 4. F.A.C.]

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## APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)

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Stack Sampling Facilities Provided by the Owner of an Emissions Unit. This section describes the minimum requirements for stack sampling facilities that are necessary to sample point emissions units. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. Emissions units must provide these facilities at their expense. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.

2. The ports shall be capable of being sealed when not in use.

3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.

4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.

5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.

2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.

3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.

4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

**APPENDIX SS-1, STACK SAMPLING FACILITIES (version dated 10/07/96)**  
**(continued)**

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1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

**(f) Electrical Power.**

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

**(g) Sampling Equipment Support.**

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

**TABLE 297.310-1 CALIBRATION SCHEDULE  
(version dated 10/07/96)**

[Note: This table is referenced in Rule 62-297.310, F.A.C.]

ITEM	MINIMUM CALIBRATION FREQUENCY	REFERENCE INSTRUMENT	TOLERANCE
Liquid in glass thermometer	Annually	ASTM Hg in glass ref. thermometer or equivalent, or thermometric points	+/-2%
Bimetallic thermometer	Quarterly	Calib. liq. in glass thermometer	5 degrees F
Thermocouple	Annually	ASTM Hg in glass ref. thermometer, NBS calibrated reference and potentiometer	5 degrees F
Barometer	Monthly	Hg barometer or NOAA station	+/-1% scale
Pitot Tube	When required or when damaged	By construction or measurements in wind tunnel D greater than 16" and standard pitot tube	See EPA Method 2, Fig. 2-2 & 2-3
Probe Nozzles	Before each test or when nicked, dented, or corroded	Micrometer	+/-0.001" mean of at least three readings Max. deviation between readings .004"
Dry Gas Meter and Orifice Meter	1. Full Scale: When received, When 5% change observed, Annually 2. One Point: Semiannually 3. Check after each test series	Spirometer or calibrated wet test or dry gas test meter	2%
		Comparison check	5%

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## Appendix BW, Biomedical Waste Definitions

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The following definitions are excerpted from Rule 64E-16.002 Definitions, Florida Administrative Code (version dated 6/3/97). For ease of reference, the rule numbering has been retained.

- (2) Biomedical Waste -- Any solid or liquid waste which may present a threat of infection to humans, including nonliquid tissue, body parts, blood, blood products, and body fluids from humans and other primates; laboratory and veterinary wastes which contain human disease-causing agents; and discarded sharps. The following are also included:
  - (a) Used, absorbent materials saturated with blood, blood products, body fluids, or excretions or secretions contaminated with visible blood; and absorbent materials saturated with blood or blood products that have dried.
  - (b) Non-absorbent, disposable devices that have been contaminated with blood, body fluids, or secretions or excretions visibly contaminated with blood, but have not been treated by an approved method.
- (3) Biomedical Waste Generator -- A facility or person that produces biomedical waste. The term includes hospitals, skilled nursing or convalescent hospitals, intermediate care facilities, clinics, dialysis clinics, dental offices, health maintenance organizations, surgical clinics, medical buildings, physicians' offices, laboratories, veterinary clinics and funeral homes.
  - (a) Mobile health care units, such as bloodmobiles, that are part of a stationary biomedical waste generator, are not considered individual biomedical waste generators.
  - (b) Funeral homes that do not practice embalming are not considered biomedical waste generators.
- (4) Body Fluids -- Those fluids which have the potential to harbor pathogens, such as human immunodeficiency virus and hepatitis B virus and include blood, blood products, lymph, semen, vaginal secretions, cerebrospinal, synovial, pleural, peritoneal, pericardial and amniotic fluids. In instances where identification of the fluid cannot be made, it shall be considered to be a regulated body fluid. Body excretions such as feces and secretions such as nasal discharges, saliva, sputum, sweat, tears, urine, and vomitus shall not be considered biomedical waste unless visibly contaminated with blood.

**APPENDIX 40 CFR 60 SUBPART A**

**GENERAL PROVISIONS**

(version dated 10/9/2008)

<b>E.U. ID No.</b>	<b>Brief Description</b>
-001	Municipal Waste Combustion Unit No. 1
-002	Municipal Waste Combustion Unit No. 2
-006	Municipal Waste Combustion Unit No. 3

**Federal Regulations Adopted by Reference**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: June 13, 2007*

*Rule Effective Date: October 1, 2007*

*Standardized Conditions Revision Date: October 9, 2008*

**40 CFR Part 60, Subpart A - General Provisions**

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40 CFR 60.14	<b>Modification.</b>
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40 CFR 60.16	<b>Priority list.</b>
40 CFR 60.17	<b>Incorporations by reference.</b>
40 CFR 60.18	<b>General control device requirements.</b>
40 CFR 60.19	<b>General notification and reporting requirements.</b>

**End of Index**

**§ 60.1 Applicability.**

- (a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter.

GENERAL PROVISIONS

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(d) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia. {Not Applicable}*

**§ 60.2 Definitions.**

The terms used in this part are defined in the Act or in this section as follows:

*Act* means the Clean Air Act (42 U.S.C. 7401 *et seq.* )

*Administrator* means the Administrator of the Environmental Protection Agency or his authorized representative.

*Affected facility* means, with reference to a stationary source, any apparatus to which a standard is applicable.

*Alternative method* means any method of sampling and analyzing for an air pollutant which is not a reference or equivalent method but which has been demonstrated to the Administrator's satisfaction to, in specific cases, produce results adequate for his determination of compliance.

*Approved permit program* means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to Title V of the Act (42 U.S.C. 7661).

*Capital expenditure* means an expenditure for a physical or operational change to an existing facility which exceeds the product of the applicable "annual asset guideline repair allowance percentage" specified in the latest edition of Internal Revenue Service (IRS) Publication 534 and the existing facility's basis, as defined by section 1012 of the Internal Revenue Code. However, the total expenditure for a physical or operational change to an existing facility must not be reduced by any "excluded additions" as defined in IRS Publication 534, as would be done for tax purposes.

*Clean coal technology demonstration project* means a project using funds appropriated under the heading 'Department of Energy-Clean Coal Technology', up to a total amount of \$2,500,000,000 for commercial demonstrations of clean coal technology, or similar projects funded through appropriations for the Environmental Protection Agency.

*Commenced* means, with respect to the definition of *new source* in section 111(a)(2) of the Act, that an owner or operator has undertaken a continuous program of construction or modification or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or modification.

*Construction* means fabrication, erection, or installation of an affected facility.

*Continuous monitoring system* means the total equipment, required under the emission monitoring sections in applicable subparts, used to sample and condition (if applicable), to analyze, and to provide a permanent record of emissions or process parameters.

*Electric utility steam generating unit* means any steam electric generating unit that is constructed for the purpose of supplying more than one-third of its potential electric output capacity and more than 25 MW electrical output to any utility power distribution system for sale. Any steam supplied to a steam distribution system for the purpose of providing steam to a steam-electric generator that would produce electrical energy for sale is also considered in determining the electrical energy output capacity of the affected facility.

*Equivalent method* means any method of sampling and analyzing for an air pollutant which has been demonstrated to the Administrator's satisfaction to have a consistent and quantitatively known relationship to the reference method, under specified conditions.

*Excess Emissions and Monitoring Systems Performance Report* is a report that must be submitted periodically by a source in order to provide data on its compliance with stated emission limits and operating parameters, and on the performance of its monitoring systems.

*Existing facility* means, with reference to a stationary source, any apparatus of the type for which a standard is promulgated in this part, and the construction or modification of which was commenced before the date of proposal of that standard; or any apparatus which could be altered in such a way as to be of that type.

*Force majeure* means, for purposes of §60.8, an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents the owner or operator from complying with the regulatory requirement to conduct performance tests within the specified timeframe despite the affected facility's best efforts to fulfill the obligation. Examples of such events are acts of nature, acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility.

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*Isokinetic sampling* means sampling in which the linear velocity of the gas entering the sampling nozzle is equal to that of the undisturbed gas stream at the sample point.

*Issuance* of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a Title V permit occurs immediately after the EPA takes final action on the final permit.

*Malfunction* means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

*Modification* means any physical change in, or change in the method of operation of, an existing facility which increases the amount of any air pollutant (to which a standard applies) emitted into the atmosphere by that facility or which results in the emission of any air pollutant (to which a standard applies) into the atmosphere not previously emitted.

*Monitoring device* means the total equipment, required under the monitoring of operations sections in applicable subparts, used to measure and record (if applicable) process parameters.

*Nitrogen oxides* means all oxides of nitrogen except nitrous oxide, as measured by test methods set forth in this part.

*One-hour period* means any 60-minute period commencing on the hour.

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Owner or operator* means any person who owns, leases, operates, controls, or supervises an affected facility or a stationary source of which an affected facility is a part.

*Part 70 permit* means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

*Particulate matter* means any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified under each applicable subpart, or an equivalent or alternative method.

*Permit program* means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

*Permitting authority* means:

- (1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or
- (2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

*Proportional sampling* means sampling at a rate that produces a constant ratio of sampling rate to stack gas flow rate.

*Reactivation of a very clean coal-fired electric utility steam generating unit* means any physical change or change in the method of operation associated with the commencement of commercial operations by a coal-fired utility unit after a period of discontinued operation where the unit:

- (1) Has not been in operation for the two-year period prior to the enactment of the Clean Air Act Amendments of 1990, and the emissions from such unit continue to be carried in the permitting authority's emissions inventory at the time of enactment;
- (2) Was equipped prior to shut-down with a continuous system of emissions control that achieves a removal efficiency for sulfur dioxide of no less than 85 percent and a removal efficiency for particulates of no less than 98 percent;
- (3) Is equipped with low-NO<sub>x</sub> burners prior to the time of commencement of operations following reactivation; and
- (4) Is otherwise in compliance with the requirements of the Clean Air Act.

*Reference method* means any method of sampling and analyzing for an air pollutant as specified in the applicable subpart.

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(version dated 10/9/2008)

*Repowering* means replacement of an existing coal-fired boiler with one of the following clean coal technologies: atmospheric or pressurized fluidized bed combustion, integrated gasification combined cycle, magnetohydrodynamics, direct and indirect coal-fired turbines, integrated gasification fuel cells, or as determined by the Administrator, in consultation with the Secretary of Energy, a derivative of one or more of these technologies, and any other technology capable of controlling multiple combustion emissions simultaneously with improved boiler or generation efficiency and with significantly greater waste reduction relative to the performance of technology in widespread commercial use as of November 15, 1990. Repowering shall also include any oil and/or gas-fired unit which has been awarded clean coal technology demonstration funding as of January 1, 1991, by the Department of Energy.

*Run* means the net period of time during which an emission sample is collected. Unless otherwise specified, a run may be either intermittent or continuous within the limits of good engineering practice.

*Shutdown* means the cessation of operation of an affected facility for any purpose.

*Six-minute period* means any one of the 10 equal parts of a one-hour period.

*Standard* means a standard of performance proposed or promulgated under this part.

*Standard conditions* means a temperature of 293 K (68F) and a pressure of 101.3 kilopascals (29.92 in Hg).

*Startup* means the setting in operation of an affected facility for any purpose.

*State* means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement: (1) The provisions of this part; and/or (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

*Stationary source* means any building, structure, facility, or installation which emits or may emit any air pollutant.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

*Volatile Organic Compound* means any organic compound which participates in atmospheric photochemical reactions; or which is measured by a reference method, an equivalent method, an alternative method, or which is determined by procedures specified under any subpart.

[44 FR 55173, Sept. 25, 1979, as amended at 45 FR 5617, Jan. 23, 1980; 45 FR 85415, Dec. 24, 1980; 54 FR 6662, Feb. 14, 1989; 55 FR 51382, Dec. 13, 1990; 57 FR 32338, July 21, 1992; 59 FR 12427, Mar. 16, 1994; 72 FR 27442, May 16, 2007]

**§ 60.3 Units and abbreviations.**

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A—ampere

g—gram

Hz—hertz

J—joule

K—degree Kelvin

kg—kilogram

m—meter

m<sup>3</sup>—cubic meter

mg—milligram—10<sup>-3</sup>gram

mm—millimeter—10<sup>-3</sup>meter

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Mg—megagram— $10^6$  gram

mol—mole

N—newton

ng—nanogram— $10^{-9}$  gram

nm—nanometer— $10^{-9}$  meter

Pa—pascal

s—second

V—volt

W—watt

$\Omega$ —ohm

$\mu$ g—microgram— $10^{-6}$  gram

(b) Other units of measure:

Btu—British thermal unit

$^{\circ}$ C—degree Celsius (centigrade)

cal—calorie

cfm—cubic feet per minute

cu ft—cubic feet

dcf—dry cubic feet

dcm—dry cubic meter

dscf—dry cubic feet at standard conditions

dscm—dry cubic meter at standard conditions

eq—equivalent

$^{\circ}$ F—degree Fahrenheit

ft—feet

gal—gallon

gr—grain

g-eq—gram equivalent

hr—hour

in—inch

k—1,000

l—liter

lpm—liter per minute

lb—pound

meq—milliequivalent

min—minute

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(version dated 10/9/2008)

ml—milliliter

mol. wt.—molecular weight

ppb—parts per billion

ppm—parts per million

psia—pounds per square inch absolute

psig—pounds per square inch gage

°R—degree Rankine

scf—cubic feet at standard conditions

scfh—cubic feet per hour at standard conditions

scm—cubic meter at standard conditions

sec—second

sq ft—square feet

std—at standard conditions

(c) Chemical nomenclature:

CdS—cadmium sulfide

CO—carbon monoxide

CO<sub>2</sub>—carbon dioxide

HCl—hydrochloric acid

Hg—mercury

H<sub>2</sub>O—water

H<sub>2</sub>S—hydrogen sulfide

H<sub>2</sub>SO<sub>4</sub>—sulfuric acid

N<sub>2</sub>—nitrogen

NO—nitric oxide

NO<sub>2</sub>—nitrogen dioxide

NO<sub>x</sub>—nitrogen oxides

O<sub>2</sub>—oxygen

SO<sub>2</sub>—sulfur dioxide

SO<sub>3</sub>—sulfur trioxide

SO<sub>x</sub>—sulfur oxides

(d) Miscellaneous:

A.S.T.M.—American Society for Testing and Materials

[42 FR 37000, July 19, 1977; 42 FR 38178, July 27, 1977]

§ 60.4 Address.

**All addresses that pertain to Florida have been incorporated. To see the complete list of addresses please go to <http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>.**

GENERAL PROVISIONS

(version dated 10/9/2008)

Link to an amendment published at 73 FR 18164, Apr. 3, 2008.

- (a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted in duplicate to the appropriate Regional Office of the U.S. Environmental Protection Agency to the attention of the Director of the Division indicated in the following list of EPA Regional Offices.

Region IV (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee), Director, Air and Waste Management Division, U.S. Environmental Protection Agency, 345 Courtland Street, NE., Atlanta, GA 30365.

- (b) Section 111(c) directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards of performance for new stationary sources located in such State. All information required to be submitted to EPA under paragraph (a) of this section, must also be submitted to the appropriate State Agency of any State to which this authority has been delegated (provided, that each specific delegation may except sources from a certain Federal or State reporting requirement). The appropriate mailing address for those States whose delegation request has been approved is as follows:

(K) Bureau of Air Quality Management, Department of Environmental Regulation, Twin Towers Office Building, 2600 Blair Stone Road, Tallahassee, FL 32301.

[40 FR 18169, Apr. 25, 1975]

**Editorial Note:** For Federal Register citations affecting §60.4 see the List of CFR Sections Affected which appears in the Finding Aids section of the printed volume and on GPO Access.

**§ 60.5 Determination of construction or modification.**

- (a) When requested to do so by an owner or operator, the Administrator will make a determination of whether action taken or intended to be taken by such owner or operator constitutes construction (including reconstruction) or modification or the commencement thereof within the meaning of this part.
- (b) The Administrator will respond to any request for a determination under paragraph (a) of this section within 30 days of receipt of such request.

[40 FR 58418, Dec. 16, 1975]

**§ 60.6 Review of plans.**

- (a) When requested to do so by an owner or operator, the Administrator will review plans for construction or modification for the purpose of providing technical advice to the owner or operator.
- (b)
- (1) A separate request shall be submitted for each construction or modification project.
  - (2) Each request shall identify the location of such project, and be accompanied by technical information describing the proposed nature, size, design, and method of operation of each affected facility involved in such project, including information on any equipment to be used for measurement or control of emissions.
- (c) Neither a request for plans review nor advice furnished by the Administrator in response to such request shall (1) relieve an owner or operator of legal responsibility for compliance with any provision of this part or of any applicable State or local requirement, or (2) prevent the Administrator from implementing or enforcing any provision of this part or taking any other action authorized by the Act.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974]

**§ 60.7 Notification and record keeping.**

- (a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification or, if acceptable to both the Administrator and the owner or operator of a source, electronic notification, as follows:



GENERAL PROVISIONS

(version dated 10/9/2008)

- (1) A notification of the date construction (or reconstruction as defined under §60.15) of an affected facility is commenced postmarked no later than 30 days after such date. This requirement shall not apply in the case of mass-produced facilities which are purchased in completed form.
  - (2) [Reserved]
  - (3) A notification of the actual date of initial startup of an affected facility postmarked within 15 days after such date.
  - (4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in §60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.
  - (5) A notification of the date upon which demonstration of the continuous monitoring system performance commences in accordance with §60.13(c). Notification shall be postmarked not less than 30 days prior to such date.
  - (6) A notification of the anticipated date for conducting the opacity observations required by §60.11(e)(1) of this part. The notification shall also include, if appropriate, a request for the Administrator to provide a visible emissions reader during a performance test. The notification shall be postmarked not less than 30 days prior to such date.
  - (7) A notification that continuous opacity monitoring system data results will be used to determine compliance with the applicable opacity standard during a performance test required by §60.8 in lieu of Method 9 observation data as allowed by §60.11(e)(5) of this part. This notification shall be postmarked not less than 30 days prior to the date of the performance test.
- (b) Any owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
- (c) Each owner or operator required to install a continuous monitoring device shall submit excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or summary report form (see paragraph (d) of this section) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each six-month period. Written reports of excess emissions shall include the following information:
- (1) The magnitude of excess emissions computed in accordance with §60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
  - (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
  - (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
  - (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.
- (d) The summary report form shall contain the information and be in the format shown in figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.
- (1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in §60.7(c) need not be submitted unless requested by the Administrator.

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- (2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in §60.7(c) shall both be submitted.

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Figure 1—Summary Report—Gaseous and Opacity Excess Emission and Monitoring System Performance

Pollutant (Circle One—SO<sub>2</sub>/NO<sub>x</sub>/TRS/H<sub>2</sub>S/CO/Opacity)

Reporting period dates: From \_\_\_\_\_ to \_\_\_\_\_

Company: \_\_\_\_\_

Emission Limitation \_\_\_\_\_

Address: \_\_\_\_\_

Monitor Manufacturer and Model No. \_\_\_\_\_

Date of Latest CMS Certification or Audit \_\_\_\_\_

Process Unit(s) Description: \_\_\_\_\_

Total source operating time in reporting period<sup>1</sup> \_\_\_\_\_

Emission data summary <sup>1</sup>		CMS performance summary <sup>1</sup>	
1. Duration of excess emissions in reporting period due to:		1. CMS downtime in reporting period due to:	
a. Startup/shutdown		a. Monitor equipment malfunctions	
b. Control equipment problems		b. Non-Monitor equipment malfunctions	
c. Process problems		c. Quality assurance calibration	
d. Other known causes		d. Other known causes	
e. Unknown causes		e. Unknown causes	
2. Total duration of excess emission		2. Total CMS Downtime	
3. Total duration of excess emissions × (100) [Total source operating time]	% <sup>2</sup>	3. [Total CMS Downtime] × (100) [Total source operating time]	% <sup>2</sup>

<sup>1</sup>For opacity, record all times in minutes. For gases, record all times in hours.

<sup>2</sup>For the reporting period: If the total duration of excess emissions is 1 percent or greater of the total operating time or the total CMS downtime is 5 percent or greater of the total operating time, both the summary report form and the excess emission report described in §60.7(c) shall be submitted.

On a separate page, describe any changes since last quarter in CMS, process or controls. I certify that the information contained in this report is true, accurate, and complete.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

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(e)

- (1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:
    - (i) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;
    - (ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and
    - (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.
  - (2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.
  - (3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.
- (f) Any owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as follows:
- (1) This paragraph applies to owners or operators required to install a continuous emissions monitoring system (CEMS) where the CEMS installed is automated, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. An automated CEMS records and reduces the measured data to the form of the pollutant emission standard through the use of a computerized data acquisition system. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain the most recent consecutive three averaging periods of subhourly measurements and a file that contains a hard copy of the data acquisition system algorithm used to reduce the measured data into the reportable form of the standard.
  - (2) This paragraph applies to owners or operators required to install a CEMS where the measured data is manually reduced to obtain the reportable form of the standard, and where the calculated data averages do not exclude periods of CEMS breakdown or malfunction. In lieu of maintaining a file of all CEMS subhourly measurements as required under paragraph (f) of this section, the owner or operator shall retain all subhourly measurements for the most recent

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reporting period. The subhourly measurements shall be retained for 120 days from the date of the most recent summary or excess emission report submitted to the Administrator.

- (3) The Administrator or delegated authority, upon notification to the source, may require the owner or operator to maintain all measurements as required by paragraph (f) of this section, if the Administrator or the delegated authority determines these records are required to more accurately assess the compliance status of the affected source.
- (g) If notification substantially similar to that in paragraph (a) of this section is required by any other State or local agency, sending the Administrator a copy of that notification will satisfy the requirements of paragraph (a) of this section.
- (h) Individual subparts of this part may include specific provisions which clarify or make inapplicable the provisions set forth in this section.

[36 FR 24877, Dec. 28, 1971, as amended at 40 FR 46254, Oct. 6, 1975; 40 FR 58418, Dec. 16, 1975; 45 FR 5617, Jan. 23, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 52 FR 9781, Mar. 26, 1987; 55 FR 51382, Dec. 13, 1990; 59 FR 12428, Mar. 16, 1994; 59 FR 47265, Sep. 15, 1994; 64 FR 7463, Feb. 12, 1999]

**§ 60.8 Performance tests.**

- (a) Except as specified in paragraphs (a)(1), (a)(2), (a)(3), and (a)(4) of this section, within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, or at such other times specified by this part, and at such other times as may be required by the Administrator under section 114 of the Act, the owner or operator of such facility shall conduct performance test(s) and furnish the Administrator a written report of the results of such performance test(s).
  - (1) If a force majeure is about to occur, occurs, or has occurred for which the affected owner or operator intends to assert a claim of force majeure, the owner or operator shall notify the Administrator, in writing as soon as practicable following the date the owner or operator first knew, or through due diligence should have known that the event may cause or caused a delay in testing beyond the regulatory deadline, but the notification must occur before the performance test deadline unless the initial force majeure or a subsequent force majeure event delays the notice, and in such cases, the notification shall occur as soon as practicable.
  - (2) The owner or operator shall provide to the Administrator a written description of the force majeure event and a rationale for attributing the delay in testing beyond the regulatory deadline to the force majeure; describe the measures taken or to be taken to minimize the delay; and identify a date by which the owner or operator proposes to conduct the performance test. The performance test shall be conducted as soon as practicable after the force majeure occurs.
  - (3) The decision as to whether or not to grant an extension to the performance test deadline is solely within the discretion of the Administrator. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an extension as soon as practicable.
  - (4) Until an extension of the performance test deadline has been approved by the Administrator under paragraphs (a)(1), (2), and (3) of this section, the owner or operator of the affected facility remains strictly subject to the requirements of this part.
- (b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Administrator (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, (3) approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance, (4) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Administrator's satisfaction that the affected facility is in compliance with the standard, or (5) approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.
- (c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator

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such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

- (d) The owner or operator of an affected facility shall provide the Administrator at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Administrator 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 of an affected facility shall notify the Administrator (or delegated State or local agency) 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 Administrator (or delegated State or local agency) by mutual agreement.
- (e) The owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:
- (1) Sampling ports adequate for test methods applicable to such facility. This includes (i) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (ii) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
  - (2) Safe sampling platform(s).
  - (3) Safe access to sampling platform(s).
  - (4) Utilities for sampling and testing equipment.
- (f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[36 FR 24877, Dec. 23, 1971, as amended at 39 FR 9314, Mar. 8, 1974; 42 FR 57126, Nov. 1, 1977; 44 FR 33612, June 11, 1979; 54 FR 6662, Feb. 14, 1989; 54 FR 21344, May 17, 1989; 64 FR 7463, Feb. 12, 1999; 72 FR 27442, May 16, 2007]

**§ 60.9 Availability of information.**

The availability to the public of information provided to, or otherwise obtained by, the Administrator under this part shall be governed by part 2 of this chapter. (Information submitted voluntarily to the Administrator for the purposes of §§60.5 and 60.6 is governed by §§2.201 through 2.213 of this chapter and not by §2.301 of this chapter.)

**§ 60.10 State authority.**

The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from:

- (a) Adopting and enforcing any emission standard or limitation applicable to an affected facility, provided that such emission standard or limitation is not less stringent than the standard applicable to such facility.
- (b) Requiring the owner or operator of an affected facility to obtain permits, licenses, or approvals prior to initiating construction, modification, or operation of such facility.

**§ 60.11 Compliance with standards and maintenance requirements.**

- (a) Compliance with standards in this part, other than opacity standards, shall be determined in accordance with performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in

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paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.
- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- (e)
- (1) For the purpose of demonstrating initial compliance, opacity observations shall be conducted concurrently with the initial performance test required in §60.8 unless one of the following conditions apply. If no performance test under §60.8 is required, then opacity observations shall be conducted within 60 days after achieving the maximum production rate at which the affected facility will be operated but no later than 180 days after initial startup of the facility. If visibility or other conditions prevent the opacity observations from being conducted concurrently with the initial performance test required under §60.8, the source owner or operator shall reschedule the opacity observations as soon after the initial performance test as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. In these cases, the 30-day prior notification to the Administrator required in §60.7(a)(6) shall be waived. The rescheduled opacity observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under §60.8. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity observations from being made concurrently with the initial performance test in accordance with procedures contained in Method 9 of appendix B of this part. Opacity readings of portions of plumes which contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity standards. The owner or operator of an affected facility shall make available, upon request by the Administrator, such records as may be necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification. Except as provided in paragraph (e)(5) of this section, the results of continuous monitoring by transmissometer which indicate that the opacity at the time visual observations were made was not in excess of the standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the source shall meet the burden of proving that the instrument used meets (at the time of the alleged violation) Performance Specification 1 in appendix B of this part, has been properly maintained and (at the time of the alleged violation) that the resulting data have not been altered in any way.
  - (2) Except as provided in paragraph (e)(3) of this section, the owner or operator of an affected facility to which an opacity standard in this part applies shall conduct opacity observations in accordance with paragraph (b) of this section, shall record the opacity of emissions, and shall report to the Administrator the opacity results along with the results of the initial performance test required under §60.8. The inability of an owner or operator to secure a visible emissions observer shall not be considered a reason for not conducting the opacity observations concurrent with the initial performance test.
  - (3) The owner or operator of an affected facility to which an opacity standard in this part applies may request the Administrator to determine and to record the opacity of emissions from the affected facility during the initial performance test and at such times as may be required. The owner or operator of the affected facility shall report the opacity results. Any request to the Administrator to determine and to record the opacity of emissions from an affected facility shall be included in the notification required in §60.7(a)(6). If, for some reason, the Administrator cannot determine and record the opacity of emissions from the affected facility during the performance test, then the provisions of paragraph (e)(1) of this section shall apply.
  - (4) An owner or operator of an affected facility using a continuous opacity monitor (transmissometer) shall record the monitoring data produced during the initial performance test required by §60.8 and shall furnish the Administrator a written report of the monitoring results along with Method 9 and §60.8 performance test results.

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- (5) An owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under §60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under §60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under §60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under §60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under §60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in §60.13(c) of this part, that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine compliance with the opacity standard.
- (6) Upon receipt from an owner or operator of the written reports of the results of the performance tests required by §60.8, the opacity observation results and observer certification required by §60.11(e)(1), and the COMS results, if applicable, the Administrator will make a finding concerning compliance with opacity and other applicable standards. If COMS data results are used to comply with an opacity standard, only those results are required to be submitted along with the performance test results required by §60.8. If the Administrator finds that an affected facility is in compliance with all applicable standards for which performance tests are conducted in accordance with §60.8 of this part but during the time such performance tests are being conducted fails to meet any applicable opacity standard, he shall notify the owner or operator and advise him that he may petition the Administrator within 10 days of receipt of notification to make appropriate adjustment to the opacity standard for the affected facility.
- (7) The Administrator will grant such a petition upon a demonstration by the owner or operator that the affected facility and associated air pollution control equipment was operated and maintained in a manner to minimize the opacity of emissions during the performance tests; that the performance tests were performed under the conditions established by the Administrator; and that the affected facility and associated air pollution control equipment were incapable of being adjusted or operated to meet the applicable opacity standard.
- (8) The Administrator will establish an opacity standard for the affected facility meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity standard in the Federal Register.
- (f) Special provisions set forth under an applicable subpart shall supersede any conflicting provisions in paragraphs (a) through (e) of this section.
- (g) For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this part, nothing in this part shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed.

[38 FR 28565, Oct. 15, 1973, as amended at 39 FR 39873, Nov. 12, 1974; 43 FR 8800, Mar. 3, 1978; 45 FR 23379, Apr. 4, 1980; 48 FR 48335, Oct. 18, 1983; 50 FR 53113, Dec. 27, 1985; 51 FR 1790, Jan. 15, 1986; 52 FR 9781, Mar. 26, 1987; 62 FR 8328, Feb. 24, 1997; 65 FR 61749, Oct. 17, 2000]

**§ 60.12 Circumvention.**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[39 FR 9314, Mar. 8, 1974]



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**§ 60.13 Monitoring requirements.**

- (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B to this part and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to this part, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.
- (b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under §60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under §60.11(e)(5), he shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of this part before the performance test required under §60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under §60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of this part. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.
- (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under §60.8 and as described in §60.11(e)(5) shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in paragraph (c) of this section at least 10 days before the performance test required under §60.8 is conducted.
- (2) Except as provided in paragraph (c)(1) of this section, the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.
- (d)
- (1) Owners and operators of a CEMS installed in accordance with the provisions of this part, must check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span must, as a minimum, be adjusted whenever either the 24-hour zero drift or the 24-hour span drift exceeds two times the limit of the applicable performance specification in appendix B of this part. The system must allow the amount of the excess zero and span drift to be recorded and quantified whenever specified. Owners and operators of a COMS installed in accordance with the provisions of this part, must automatically, intrinsic to the opacity monitor, check the zero and upscale (span) calibration drifts at least once daily. For a particular COMS, the acceptable range of zero and upscale calibration materials is as defined in the applicable version of PS-1 in appendix B of this part. For a COMS, the optical surfaces, exposed to the effluent gases, must be cleaned before performing the zero and upscale drift adjustments, except for systems using automatic zero adjustments. The optical surfaces must be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
- (2) Unless otherwise approved by the Administrator, the following procedures must be followed for a COMS. Minimum procedures must include an automated method for producing a simulated zero opacity condition and an upscale opacity condition using a certified neutral density filter or other related technique to produce a known obstruction of the light beam. Such procedures must provide a system check of all active analyzer internal optics with power or curvature, all active electronic circuitry including the light source and photodetector assembly, and electronic or electro-mechanical systems and hardware and or software used during normal measurement operation.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under paragraph (d) of this section, all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

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- (1) All continuous monitoring systems referenced by paragraph (c) of this section for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
  - (2) All continuous monitoring systems referenced by paragraph (c) of this section for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of this part shall be used.
- (g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.
- (h)
- (1) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in §60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period.
  - (2) For continuous monitoring systems other than opacity, 1-hour averages shall be computed as follows, except that the provisions pertaining to the validation of partial operating hours are only applicable for affected facilities that are required by the applicable subpart to include partial hours in the emission calculations:
    - (i) Except as provided under paragraph (h)(2)(iii) of this section, for a full operating hour (any clock hour with 60 minutes of unit operation), at least four valid data points are required to calculate the hourly average, *i.e.*, one data point in each of the 15-minute quadrants of the hour.
    - (ii) Except as provided under paragraph (h)(2)(iii) of this section, for a partial operating hour (any clock hour with less than 60 minutes of unit operation), at least one valid data point in each 15-minute quadrant of the hour in which the unit operates is required to calculate the hourly average.
    - (iii) For any operating hour in which required maintenance or quality-assurance activities are performed:
      - (A) If the unit operates in two or more quadrants of the hour, a minimum of two valid data points, separated by at least 15 minutes, is required to calculate the hourly average; or
      - (B) If the unit operates in only one quadrant of the hour, at least one valid data point is required to calculate the hourly average.
    - (iv) If a daily calibration error check is failed during any operating hour, all data for that hour shall be invalidated, unless a subsequent calibration error test is passed in the same hour and the requirements of paragraph (h)(2)(iii) of this section are met, based solely on valid data recorded after the successful calibration.
    - (v) For each full or partial operating hour, all valid data points shall be used to calculate the hourly average.
    - (vi) Except as provided under paragraph (h)(2)(vii) of this section, data recorded during periods of continuous monitoring system breakdown, repair, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph.
    - (vii) Owners and operators complying with the requirements of §60.7(f)(1) or (2) must include any data recorded during periods of monitor breakdown or malfunction in the data averages.

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- (viii) When specified in an applicable subpart, hourly averages for certain partial operating hours shall not be computed or included in the emission averages ( e.g. hours with < 30 minutes of unit operation under §60.47b(d)).
- (ix) Either arithmetic or integrated averaging of all data may be used to calculate the hourly averages. The data may be recorded in reduced or nonreduced form ( e.g. , ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant).
- (3) All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in the applicable subpart. After conversion into units of the standard, the data may be rounded to the same number of significant digits used in the applicable subpart to specify the emission limit.
- (i) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring procedures or requirements of this part including, but not limited to the following:
- (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by this part would not provide accurate measurements due to liquid water or other interferences caused by substances in the effluent gases.
  - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
  - (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
  - (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
  - (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
  - (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
  - (7) Alternatives to the A.S.T.M. test methods or sampling procedures specified by any subpart.
  - (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Administrator may require that such demonstration be performed for each affected facility.
  - (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities is released to the atmosphere through more than one point.
- (j) An alternative to the relative accuracy (RA) test specified in Performance Specification 2 of appendix B may be requested as follows:
- (1) An alternative to the reference method tests for determining RA is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Administrator to waive the RA test in Section 8.4 of Performance Specification 2 and substitute the procedures in Section 16.0 if the results of a performance test conducted according to the requirements in §60.8 of this subpart or other tests performed following the criteria in §60.8 demonstrate that the emission rate of the pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Administrator to waive the RA test and substitute the procedures in Section 16.0 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the RA test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative RA materials, and the other equipment checks included in the alternative procedure. The Administrator will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes

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other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

- (2) The waiver of a CEMS RA test will be reviewed and may be rescinded at such time, following successful completion of the alternative RA procedure, that the CEMS data indicate that the source emissions are approaching the level. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., §60.45(g) (2) and (3), §60.73(e), and §60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of RA testing. If this criterion is exceeded, the owner or operator must notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Administrator will review the notification and may rescind the waiver and require the owner or operator to conduct a RA test of the CEMS as specified in Section 8.4 of Performance Specification 2.

[40 FR 46255, Oct. 6, 1975; 40 FR 59205, Dec. 22, 1975, as amended at 41 FR 35185, Aug. 20, 1976; 48 FR 13326, Mar. 30, 1983; 48 FR 23610, May 25, 1983; 48 FR 32986, July 20, 1983; 52 FR 9782, Mar. 26, 1987; 52 FR 17555, May 11, 1987; 52 FR 21007, June 4, 1987; 64 FR 7463, Feb. 12, 1999; 65 FR 48920, Aug. 10, 2000; 65 FR 61749, Oct. 17, 2000; 66 FR 44980, Aug. 27, 2001; 71 FR 31102, June 1, 2006; 72 FR 32714, June 13, 2007]

**Editorial Note:** At 65 FR 61749, Oct. 17, 2000, §60.13 was amended by revising the words “ng/J of pollutant” to read “ng of pollutant per J of heat input” in the sixth sentence of paragraph (h). However, the amendment could not be incorporated because the words “ng/J of pollutant” do not exist in the sixth sentence of paragraph (h).

**§ 60.14 Modification.**

- (a) Except as provided under paragraphs (e) and (f) of this section, any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
- (b) Emission rate shall be expressed as kg/hr of any pollutant discharged into the atmosphere for which a standard is applicable. The Administrator shall use the following to determine emission rate:
- (1) Emission factors as specified in the latest issue of “Compilation of Air Pollutant Emission Factors,” EPA Publication No. AP-42, or other emission factors determined by the Administrator to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrates that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.
  - (2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in paragraph (b)(1) of this section does not demonstrate to the Administrator's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Administrator's satisfaction that there are reasonable grounds to dispute the result obtained by the Administrator utilizing emission factors as referenced in paragraph (b)(1) of this section. When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in appendix C of this part shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Administrator shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.
- (c) The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of this part any other facility within that source.
- (d) [Reserved]

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- (e) The following shall not, by themselves, be considered modifications under this part:
- (1) Maintenance, repair, and replacement which the Administrator determines to be routine for a source category, subject to the provisions of paragraph (c) of this section and §60.15.
  - (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
  - (3) An increase in the hours of operation.
  - (4) Use of an alternative fuel or raw material if, prior to the date any standard under this part becomes applicable to that source type, as provided by §60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
  - (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Administrator determines to be less environmentally beneficial.
  - (6) The relocation or change in ownership of an existing facility.
- (f) Special provisions set forth under an applicable subpart of this part shall supersede any conflicting provisions of this section.
- (g) Within 180 days of the completion of any physical or operational change subject to the control measures specified in paragraph (a) of this section, compliance with all applicable standards must be achieved.
- (h) No physical change, or change in the method of operation, at an existing electric utility steam generating unit shall be treated as a modification for the purposes of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the 5 years prior to the change.
- (i) Repowering projects that are awarded funding from the Department of Energy as permanent clean coal technology demonstration projects (or similar projects funded by EPA) are exempt from the requirements of this section provided that such change does not increase the maximum hourly emissions of any pollutant regulated under this section above the maximum hourly emissions achievable at that unit during the five years prior to the change.
- (j)
- (1) Repowering projects that qualify for an extension under section 409(b) of the Clean Air Act are exempt from the requirements of this section, provided that such change does not increase the actual hourly emissions of any pollutant regulated under this section above the actual hourly emissions achievable at that unit during the 5 years prior to the change.
  - (2) This exemption shall not apply to any new unit that:
    - (i) Is designated as a replacement for an existing unit;
    - (ii) Qualifies under section 409(b) of the Clean Air Act for an extension of an emission limitation compliance date under section 405 of the Clean Air Act; and
    - (iii) Is located at a different site than the existing unit.
- (k) The installation, operation, cessation, or removal of a temporary clean coal technology demonstration project is exempt from the requirements of this section. A *temporary clean coal control technology demonstration project*, for the purposes of this section is a clean coal technology demonstration project that is operated for a period of 5 years or less, and which complies with the State implementation plan for the State in which the project is located and other requirements necessary to attain and maintain the national ambient air quality standards during the project and after it is terminated.

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- (l) The reactivation of a very clean coal-fired electric utility steam generating unit is exempt from the requirements of this section.

[40 FR 58419, Dec. 16, 1975, as amended at 43 FR 34347, Aug. 3, 1978; 45 FR 5617, Jan. 23, 1980; 57 FR 32339, July 21, 1992; 65 FR 61750, Oct. 17, 2000]

**§ 60.15 Reconstruction.**

- (a) An existing facility, upon reconstruction, becomes an affected facility, irrespective of any change in emission rate.
- (b) "Reconstruction" means the replacement of components of an existing facility to such an extent that:
- (1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, and
  - (2) It is technologically and economically feasible to meet the applicable standards set forth in this part.
- (c) "Fixed capital cost" means the capital needed to provide all the depreciable components.
- (d) If an owner or operator of an existing facility proposes to replace components, and the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable entirely new facility, he shall notify the Administrator of the proposed replacements. The notice must be postmarked 60 days (or as soon as practicable) before construction of the replacements is commenced and must include the following information:
- (1) Name and address of the owner or operator.
  - (2) The location of the existing facility.
  - (3) A brief description of the existing facility and the components which are to be replaced.
  - (4) A description of the existing air pollution control equipment and the proposed air pollution control equipment.
  - (5) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new facility.
  - (6) The estimated life of the existing facility after the replacements.
  - (7) A discussion of any economic or technical limitations the facility may have in complying with the applicable standards of performance after the proposed replacements.
- (e) The Administrator will determine, within 30 days of the receipt of the notice required by paragraph (d) of this section and any additional information he may reasonably require, whether the proposed replacement constitutes reconstruction.
- (f) The Administrator's determination under paragraph (e) shall be based on:
- (1) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new facility;
  - (2) The estimated life of the facility after the replacements compared to the life of a comparable entirely new facility;
  - (3) The extent to which the components being replaced cause or contribute to the emissions from the facility; and
  - (4) Any economic or technical limitations on compliance with applicable standards of performance which are inherent in the proposed replacements.
- (g) Individual subparts of this part may include specific provisions which refine and delimit the concept of reconstruction set forth in this section.

[40 FR 58420, Dec. 16, 1975]

**§ 60.16 Priority list.**

A list of prioritized major source categories may be found at the following EPA web site:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&rgn=div6&view=text&node=40:6.0.1.1.1.1&idno=40>

**§ 60.17 Incorporations by reference.**

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The materials listed below are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register on the date listed. These materials are incorporated as they exist on the date of the approval, and a notice of any change in these materials will be published in the Federal Register. The materials are available for purchase at the corresponding address noted below, and all are available for inspection at the Library (C267-01), U.S. EPA, Research Triangle Park, NC or at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to:

[http://www.archives.gov/federal\\_register/code\\_of\\_federal\\_regulations/ibr\\_locations.html](http://www.archives.gov/federal_register/code_of_federal_regulations/ibr_locations.html).

- (a) The following materials are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 100 Barr Harbor Drive, Post Office Box C700, West Conshohocken, PA 19428-2959; or ProQuest, 300 North Zeeb Road, Ann Arbor, MI 48106.
- (1) ASTM A99-76, 82 (Reapproved 1987), Standard Specification for Ferromanganese, incorporation by reference (IBR) approved for §60.261.
  - (2) ASTM A100-69, 74, 93, Standard Specification for Ferrosilicon, IBR approved for §60.261.
  - (3) ASTM A101-73, 93, Standard Specification for Ferrochromium, IBR approved for §60.261.
  - (4) ASTM A482-76, 93, Standard Specification for Ferrochromesilicon, IBR approved for §60.261.
  - (5) ASTM A483-64, 74 (Reapproved 1988), Standard Specification for Silicomanganese, IBR approved for §60.261.
  - (6) ASTM A495-76, 94, Standard Specification for Calcium-Silicon and Calcium Manganese-Silicon, IBR approved for §60.261.
  - (7) ASTM D86-78, 82, 90, 93, 95, 96, Distillation of Petroleum Products, IBR approved for §§60.562-2(d), 60.593(d), 60.593a(d), and 60.633(h).
  - (8) ASTM D129-64, 78, 95, 00, Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, 12.5.2.2.3.
  - (9) ASTM D129-00 (Reapproved 2005), Standard Test Method for Sulfur in Petroleum Products (General Bomb Method), IBR approved for §60.4415(a)(1)(i).
  - (10) ASTM D240-76, 92, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter, IBR approved for §§60.46(c), 60.296(b), and Appendix A: Method 19, Section 12.5.2.2.3.
  - (11) ASTM D270-65, 75, Standard Method of Sampling Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
  - (12) ASTM D323-82, 94, Test Method for Vapor Pressure of Petroleum Products (Reid Method), IBR approved for §§60.111(l), 60.111a(g), 60.111b(g), and 60.116b(f)(2)(ii).
  - (13) ASTM D388-77, 90, 91, 95, 98a, 99 (Reapproved 2004)<sup>e1</sup>, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.24(h)(8), 60.41 of subpart D of this part, 60.45(f)(4)(i), 60.45(f)(4)(ii), 60.45(f)(4)(vi), 60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, and 60.4102.
  - (14) ASTM D388-77, 90, 91, 95, 98a, Standard Specification for Classification of Coals by Rank, IBR approved for §§60.251(b) and (c) of subpart Y of this part.
  - (15) ASTM D396-78, 89, 90, 92, 96, 98, Standard Specification for Fuel Oils, IBR approved for §§60.41b of subpart Db of this part, 60.41c of subpart Dc of this part, 60.111(b) of subpart K of this part, and 60.111a(b) of subpart Ka of this part.
  - (16) ASTM D975-78, 96, 98a, Standard Specification for Diesel Fuel Oils, IBR approved for §§60.111(b) of subpart K of this part and 60.111a(b) of subpart Ka of this part.
  - (17) ASTM D1072-80, 90 (Reapproved 1994), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.335(b)(10)(ii).

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- (18) ASTM D1072-90 (Reapproved 1999), Standard Test Method for Total Sulfur in Fuel Gases, IBR approved for §60.4415(a)(1)(ii).
- (19) ASTM D1137-53, 75, Standard Method for Analysis of Natural Gases and Related Types of Gaseous Mixtures by the Mass Spectrometer, IBR approved for §60.45(f)(5)(i).
- (20) ASTM D1193-77, 91, Standard Specification for Reagent Water, IBR approved for Appendix A: Method 5, Section 7.1.3; Method 5E, Section 7.2.1; Method 5F, Section 7.2.1; Method 6, Section 7.1.1; Method 7, Section 7.1.1; Method 7C, Section 7.1.1; Method 7D, Section 7.1.1; Method 10A, Section 7.1.1; Method 11, Section 7.1.3; Method 12, Section 7.1.3; Method 13A, Section 7.1.2; Method 26, Section 7.1.2; Method 26A, Section 7.1.2; and Method 29, Section 7.2.2.
- (21) ASTM D1266-87, 91, 98, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (22) ASTM D1266-98 (Reapproved 2003)e1, Standard Test Method for Sulfur in Petroleum Products (Lamp Method), IBR approved for §60.4415(a)(1)(i).
- (23) ASTM D1475-60 (Reapproved 1980), 90, Standard Test Method for Density of Paint, Varnish Lacquer, and Related Products, IBR approved for §60.435(d)(1), Appendix A: Method 24, Section 6.1; and Method 24A, Sections 6.5 and 7.1.
- (24) ASTM D1552-83, 95, 01, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §§60.106(j)(2), 60.335(b)(10)(i), and Appendix A: Method 19, Section 12.5.2.2.3.
- (25) ASTM D1552-03, Standard Test Method for Sulfur in Petroleum Products (High-Temperature Method), IBR approved for §60.4415(a)(1)(i).
- (26) ASTM D1826-77, 94, Standard Test Method for Calorific Value of Gases in Natural Gas Range by Continuous Recording Calorimeter, IBR approved for §§60.45(f)(5)(ii), 60.46(c)(2), 60.296(b)(3), and Appendix A: Method 19, Section 12.3.2.4.
- (27) ASTM D1835-87, 91, 97, 03a, Standard Specification for Liquefied Petroleum (LP) Gases, IBR approved for §§60.41Da of subpart Da of this part, 60.41b of subpart Db of this part, and 60.41c of subpart Dc of this part.
- (28) ASTM D1945-64, 76, 91, 96, Standard Method for Analysis of Natural Gas by Gas Chromatography, IBR approved for §60.45(f)(5)(i).
- (29) ASTM D1946-77, 90 (Reapproved 1994), Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for §§60.18(f)(3), 60.45(f)(5)(i), 60.564(f)(1), 60.614(e)(2)(ii), 60.614(e)(4), 60.664(e)(2)(ii), 60.664(e)(4), 60.704(d)(2)(ii), and 60.704(d)(4).
- (30) ASTM D2013-72, 86, Standard Method of Preparing Coal Samples for Analysis, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (31) ASTM D2015-77 (Reapproved 1978), 96, Standard Test Method for Gross Calorific Value of Solid Fuel by the Adiabatic Bomb Calorimeter, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (32) ASTM D2016-74, 83, Standard Test Methods for Moisture Content of Wood, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (33) ASTM D2234-76, 96, 97b, 98, Standard Methods for Collection of a Gross Sample of Coal, IBR approved for Appendix A: Method 19, Section 12.5.2.1.1.
- (34) ASTM D2369-81, 87, 90, 92, 93, 95, Standard Test Method for Volatile Content of Coatings, IBR approved for Appendix A: Method 24, Section 6.2.
- (35) ASTM D2382-76, 88, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(e)(4), 60.664(e)(4), and 60.704(d)(4).



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- (36) ASTM D2504–67, 77, 88 (Reapproved 1993), Noncondensable Gases in C3 and Lighter Hydrocarbon Products by Gas Chromatography, IBR approved for §§60.485(g)(5) and 60.485a(g)(5).
- (37) ASTM D2584–68 (Reapproved 1985), 94, Standard Test Method for Ignition Loss of Cured Reinforced Resins, IBR approved for §60.685(c)(3)(i).
- (38) ASTM D2597–94 (Reapproved 1999), Standard Test Method for Analysis of Demethanized Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, IBR approved for §60.335(b)(9)(i).
- (39) ASTM D2622–87, 94, 98, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §§60.106(j)(2) and 60.335(b)(10)(i).
- (40) ASTM D2622–05, Standard Test Method for Sulfur in Petroleum Products by Wavelength Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (41) ASTM D2879–83, 96, 97, Test Method for Vapor Pressure-Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for §§60.111b(f)(3), 60.116b(e)(3)(ii), 60.116b(f)(2)(i), 60.485(e)(1), and 60.485a(e)(1).
- (42) ASTM D2880–78, 96, Standard Specification for Gas Turbine Fuel Oils, IBR approved for §§60.111(b), 60.111a(b), and 60.335(d).
- (43) ASTM D2908–74, 91, Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography, IBR approved for §60.564(j).
- (44) ASTM D2986–71, 78, 95a, Standard Method for Evaluation of Air, Assay Media by the Monodisperse DOP (Diocetyl Phthalate) Smoke Test, IBR approved for Appendix A: Method 5, Section 7.1.1; Method 12, Section 7.1.1; and Method 13A, Section 7.1.1.2.
- (45) ASTM D3173–73, 87, Standard Test Method for Moisture in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (46) ASTM D3176–74, 89, Standard Method for Ultimate Analysis of Coal and Coke, IBR approved for §60.45(f)(5)(i) and Appendix A: Method 19, Section 12.3.2.3.
- (47) ASTM D3177–75, 89, Standard Test Method for Total Sulfur in the Analysis Sample of Coal and Coke, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (48) ASTM D3178–73 (Reapproved 1979), 89, Standard Test Methods for Carbon and Hydrogen in the Analysis Sample of Coal and Coke, IBR approved for §60.45(f)(5)(i).
- (49) ASTM D3246–81, 92, 96, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.335(b)(10)(ii).
- (50) ASTM D3246–05, Standard Test Method for Sulfur in Petroleum Gas by Oxidative Microcoulometry, IBR approved for §60.4415(a)(1)(ii).
- (51) ASTM D3270–73T, 80, 91, 95, Standard Test Methods for Analysis for Fluoride Content of the Atmosphere and Plant Tissues (Semiautomated Method), IBR approved for Appendix A: Method 13A, Section 16.1.
- (52) ASTM D3286–85, 96, Standard Test Method for Gross Calorific Value of Coal and Coke by the Isoperibol Bomb Calorimeter, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (53) ASTM D3370–76, 95a, Standard Practices for Sampling Water, IBR approved for §60.564(j).
- (54) ASTM D3792–79, 91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.3.
- (55) ASTM D4017–81, 90, 96a, Standard Test Method for Water in Paints and Paint Materials by the Karl Fischer Titration Method, IBR approved for Appendix A: Method 24, Section 6.4.
- (56) ASTM D4057–81, 95, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.3.

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- (57) ASTM D4057–95 (Reapproved 2000), Standard Practice for Manual Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (58) ASTM D4084–82, 94, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §60.334(h)(1).
- (59) ASTM D4084–05, Standard Test Method for Analysis of Hydrogen Sulfide in Gaseous Fuels (Lead Acetate Reaction Rate Method), IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (60) ASTM D4177–95, Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for Appendix A: Method 19, Section 12.5.2.2.1.
- (61) ASTM D4177–95 (Reapproved 2000), Standard Practice for Automatic Sampling of Petroleum and Petroleum Products, IBR approved for §60.4415(a)(1).
- (62) ASTM D4239–85, 94, 97, Standard Test Methods for Sulfur in the Analysis Sample of Coal and Coke Using High Temperature Tube Furnace Combustion Methods, IBR approved for Appendix A: Method 19, Section 12.5.2.1.3.
- (63) ASTM D4294–02, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.335(b)(10)(i).
- (64) ASTM D4294–03, Standard Test Method for Sulfur in Petroleum and Petroleum Products by Energy-Dispersive X-Ray Fluorescence Spectrometry, IBR approved for §60.4415(a)(1)(i).
- (65) ASTM D4442–84, 92, Standard Test Methods for Direct Moisture Content Measurement in Wood and Wood-base Materials, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (66) ASTM D4444–92, Standard Test Methods for Use and Calibration of Hand-Held Moisture Meters, IBR approved for Appendix A: Method 28, Section 16.1.1.
- (67) ASTM D4457–85 (Reapproved 1991), Test Method for Determination of Dichloromethane and 1, 1, 1-Trichloroethane in Paints and Coatings by Direct Injection into a Gas Chromatograph, IBR approved for Appendix A: Method 24, Section 6.5.
- (68) ASTM D4468–85 (Reapproved 2000), Standard Test Method for Total Sulfur in Gaseous Fuels by Hydrogenolysis and Rateometric Colorimetry, IBR approved for §§60.335(b)(10)(ii) and 60.4415(a)(1)(ii).
- (69) ASTM D4629–02, Standard Test Method for Trace Nitrogen in Liquid Petroleum Hydrocarbons by Syringe/Inlet Oxidative Combustion and Chemiluminescence Detection, IBR approved for §§60.49b(e) and 60.335(b)(9)(i).
- (70) ASTM D4809–95, Standard Test Method for Heat of Combustion of Liquid Hydrocarbon Fuels by Bomb Calorimeter (Precision Method), IBR approved for §§60.18(f)(3), 60.485(g)(6), 60.485a(g)(6), 60.564(f)(3), 60.614(d)(4), 60.664(e)(4), and 60.704(d)(4).
- (71) ASTM D4810–88 (Reapproved 1999), Standard Test Method for Hydrogen Sulfide in Natural Gas Using Length of Stain Detector Tubes, IBR approved for §§60.4360 and 60.4415(a)(1)(ii).
- (72) ASTM D5287–97 (Reapproved 2002), Standard Practice for Automatic Sampling of Gaseous Fuels, IBR approved for §60.4415(a)(1).
- (73) ASTM D5403–93, Standard Test Methods for Volatile Content of Radiation Curable Materials, IBR approved for Appendix A: Method 24, Section 6.6.
- (74) ASTM D5453–00, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(i).
- (75) ASTM D5453–05, Standard Test Method for Determination of Total Sulfur in Light Hydrocarbons, Motor Fuels and Oils by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(i).
- (76) ASTM D5504–01, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Chemiluminescence, IBR approved for §§60.334(h)(1) and 60.4360.

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- (77) ASTM D5762-02, Standard Test Method for Nitrogen in Petroleum and Petroleum Products by Boat-Inlet Chemiluminescence, IBR approved for §60.335(b)(9)(i).
- (78) ASTM D5865-98, Standard Test Method for Gross Calorific Value of Coal and Coke, IBR approved for §60.45(f)(5)(ii), 60.46(c)(2), and Appendix A: Method 19, Section 12.5.2.1.3.
- (79) ASTM D6216-98, Standard Practice for Opacity Monitor Manufacturers to Certify Conformance with Design and Performance Specifications, IBR approved for Appendix B, Performance Specification 1.
- (80) ASTM D6228-98, Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §60.334(h)(1).
- (81) ASTM D6228-98 (Reapproved 2003), Standard Test Method for Determination of Sulfur Compounds in Natural Gas and Gaseous Fuels by Gas Chromatography and Flame Photometric Detection, IBR approved for §§60.4360 and 60.4415.
- (82) ASTM D6348-03, Standard Test Method for Determination of Gaseous Compounds by Extractive Direct Interface Fourier Transform Infrared (FTIR) Spectroscopy, IBR approved for table 7 of Subpart IIII of this part and table 2 of subpart JJJJ of this part.
- (83) ASTM D6366-99, Standard Test Method for Total Trace Nitrogen and Its Derivatives in Liquid Aromatic Hydrocarbons by Oxidative Combustion and Electrochemical Detection, IBR approved for §60.335(b)(9)(i).
- (84) ASTM D6420-99 (Reapproved 2004) Standard Test Method for Determination of Gaseous Organic Compounds by Direct Interface Gas Chromatography-Mass Spectrometry, IBR approved for table 2 of subpart JJJJ of this part.
- (85) ASTM D6522-00, Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for §60.335(a).
- (86) ASTM D6522-00 (Reapproved 2005), Standard Test Method for Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Concentrations in Emissions from Natural Gas-Fired Reciprocating Engines, Combustion Turbines, Boilers, and Process Heaters Using Portable Analyzers, IBR approved for table 2 of subpart JJJJ of this part.
- (87) ASTM D6667-01, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.335(b)(10)(ii).
- (88) ASTM D6667-04, Standard Test Method for Determination of Total Volatile Sulfur in Gaseous Hydrocarbons and Liquefied Petroleum Gases by Ultraviolet Fluorescence, IBR approved for §60.4415(a)(1)(ii).
- (89) ASTM D6784-02, Standard Test Method for Elemental, Oxidized, Particle-Bound and Total Mercury in Flue Gas Generated from Coal-Fired Stationary Sources (Ontario Hydro Method), IBR approved for Appendix B to part 60, Performance Specification 12A, Section 8.6.2.
- (90) ASTM E168-67, 77, 92, General Techniques of Infrared Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (91) ASTM E169-63, 77, 93, General Techniques of Ultraviolet Quantitative Analysis, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (92) ASTM E260-73, 91, 96, General Gas Chromatography Procedures, IBR approved for §§60.485a(d)(1), 60.593(b)(2), 60.593a(b)(2), and 60.632(f).
- (b) The following material is available for purchase from the Association of Official Analytical Chemists, 1111 North 19th Street, Suite 210, Arlington, VA 22209.
- (1) AOAC Method 9, Official Methods of Analysis of the Association of Official Analytical Chemists, 11th edition, 1970, pp. 11-12, IBR approved January 27, 1983 for §§60.204(b)(3), 60.214(b)(3), 60.224(b)(3), 60.234(b)(3).
- (c) The following material is available for purchase from the American Petroleum Institute, 1220 L Street NW., Washington, DC 20005.

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- (1) API Publication 2517, Evaporation Loss from External Floating Roof Tanks, Second Edition, February 1980, IBR approved January 27, 1983, for §§60.111(i), 60.111a(f), 60.111a(f)(1) and 60.116b(e)(2)(i).
- (d) The following material is available for purchase from the Technical Association of the Pulp and Paper Industry (TAPPI), Dunwoody Park, Atlanta, GA 30341.
- (1) TAPPI Method T624 os-68, IBR approved January 27, 1983 for §60.285(d)(3).
- (e) The following material is available for purchase from the Water Pollution Control Federation (WPCF), 2626 Pennsylvania Avenue NW., Washington, DC 20037.
- (1) Method 209A, Total Residue Dried at 103–105 °C, in Standard Methods for the Examination of Water and Wastewater, 15th Edition, 1980, IBR approved February 25, 1985 for §60.683(b).
- (f) The following material is available for purchase from the following address: Underwriter's Laboratories, Inc. (UL), 333 Pfingsten Road, Northbrook, IL 60062.
- (1) UL 103, Sixth Edition revised as of September 3, 1986, Standard for Chimneys, Factory-built, Residential Type and Building Heating Appliance.
- (g) The following material is available for purchase from the following address: West Coast Lumber Inspection Bureau, 6980 SW. Barnes Road, Portland, OR 97223.
- (1) West Coast Lumber Standard Grading Rules No. 16, pages 5–21 and 90 and 91, September 3, 1970, revised 1984.
- (h) The following material is available for purchase from the American Society of Mechanical Engineers (ASME), Three Park Avenue, New York, NY 10016–5990.
- (1) ASME QRO–1–1994, Standard for the Qualification and Certification of Resource Recovery Facility Operators, IBR approved for §§60.56a, 60.54b(a), 60.54b(b), 60.1185(a), 60.1185(c)(2), 60.1675(a), and 60.1675(c)(2).
- (2) ASME PTC 4.1–1964 (Reaffirmed 1991), Power Test Codes: Test Code for Steam Generating Units (with 1968 and 1969 Addenda), IBR approved for §§60.46b of subpart Db of this part, 60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(3) and 60.1810(a)(3).
- (3) ASME Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th Edition (1971), IBR approved for §§60.58a(h)(6)(ii), 60.58b(i)(6)(ii), 60.1320(a)(4), and 60.1810(a)(4).
- (4) ANSI/ASME PTC 19.10–1981, Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus], IBR approved for Tables 1 and 3 of subpart EEEE, Tables 2 and 4 of subpart FFFF, Table 2 of subpart JJJJ, and §§60.4415(a)(2) and 60.4415(a)(3) of subpart KKKK of this part.
- (i) Test Methods for Evaluating Solid Waste, Physical/Chemical Methods,” EPA Publication SW–846 Third Edition (November 1986), as amended by Updates I (July 1992), II (September 1994), IIA (August, 1993), IIB (January 1995), and III (December 1996). This document may be obtained from the U.S. EPA, Office of Solid Waste and Emergency Response, Waste Characterization Branch, Washington, DC 20460, and is incorporated by reference for appendix A to part 60, Method 29, Sections 7.5.34; 9.2.1; 9.2.3; 10.2; 10.3; 11.1.1; 11.1.3; 13.2.1; 13.2.2; 13.3.1; and Table 29–3.
- (j) “Standard Methods for the Examination of Water and Wastewater,” 16th edition, 1985. Method 303F: “Determination of Mercury by the Cold Vapor Technique.” This document may be obtained from the American Public Health Association, 1015 18th Street, NW., Washington, DC 20036, and is incorporated by reference for appendix A to part 60, Method 29, Sections 9.2.3; 10.3; and 11.1.3.
- (k) This material is available for purchase from the American Hospital Association (AHA) Service, Inc., Post Office Box 92683, Chicago, Illinois 60675–2683. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A–91–61, Item IV–J–124), Room M–1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) An Ounce of Prevention: Waste Reduction Strategies for Health Care Facilities. American Society for Health Care Environmental Services of the American Hospital Association. Chicago, Illinois. 1993. AHA Catalog No. 057007. ISBN 0–87258–673–5. IBR approved for §60.35e and §60.55c.

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- (l) This material is available for purchase from the National Technical Information Services, 5285 Port Royal Road, Springfield, Virginia 22161. You may inspect a copy at EPA's Air and Radiation Docket and Information Center (Docket A-91-61, Item IV-J-125), Room M-1500, 1200 Pennsylvania Ave., NW., Washington, DC.
- (1) OMB Bulletin No. 93-17: Revised Statistical Definitions for Metropolitan Areas. Office of Management and Budget, June 30, 1993. NTIS No. PB 93-192-664. IBR approved for §60.31e.
- (m) This material is available for purchase from at least one of the following addresses: The Gas Processors Association, 6526 East 60th Street, Tulsa, OK, 74145; or Information Handling Services, 15 Inverness Way East, PO Box 1154, Englewood, CO 80150-1154. You may inspect a copy at EPA's Air and Radiation Docket and Information Center, Room B108, 1301 Constitution Ave., NW., Washington, DC 20460.
- (1) Gas Processors Association Method 2377-86, Test for Hydrogen Sulfide and Carbon Dioxide in Natural Gas Using Length of Stain Tubes, IBR approved for §§60.334(h)(1), 60.4360, and 60.4415(a)(1)(ii).
- (2) [Reserved]
- (n) This material is available for purchase from IHS Inc., 15 Inverness Way East, Englewood, CO 80112.
- (1) International Organization for Standards 8178-4: 1996(E), Reciprocating Internal Combustion Engines—Exhaust Emission Measurement—Part 4: Test Cycles for Different Engine Applications, IBR approved for §60.4241(b).
- (2) [Reserved]

[48 FR 3735, Jan. 27, 1983]

**Editorial Note:** For Federal Register citations affecting §60.17, see the List of CFR Sections Affected, which appears in the Finding Aids section of the printed volume and on GPO Access.

#### § 60.18 General control device requirements.

- (a) *Introduction.* This section contains requirements for control devices used to comply with applicable subparts of parts 60 and 61. The requirements are placed here for administrative convenience and only apply to facilities covered by subparts referring to this section.
- (b) *Flares.* Paragraphs (c) through (f) apply to flares.
- (c)
- (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
- (2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).
- (3) An owner/operator has the choice of adhering to either the heat content specifications in paragraph (c)(3)(ii) of this section and the maximum tip velocity specifications in paragraph (c)(4) of this section, or adhering to the requirements in paragraph (c)(3)(i) of this section.
- (i)
- (A) Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity,  $V_{max}$ , as determined by the following equation:

$$V_{max} = (X_{H_2} - K_1) * K_2$$

Where:

 $V_{max}$  = Maximum permitted velocity, m/sec. $K_1$  = Constant, 6.0 volume-percent hydrogen. $K_2$  = Constant, 3.9(m/sec)/volume-percent hydrogen.

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$X_{H_2}$  = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in §60.17).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (f)(4) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f)(3) of this section.

(4)

(i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4) of this section, less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (c)(4) (ii) and (iii) of this section.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

(5) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity,  $V_{max}$ , as determined by the method specified in paragraph (f)(6).

(6) Flares used to comply with this section shall be steam-assisted, air-assisted, or nonassisted.

(d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

(e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.

(f)

(1) Method 22 of appendix A to this part shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.

(2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^n C_i H_i$$

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where:

$H_T$  = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of off gas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C;

$$K = \text{Constant, } 1.740 \times 10^{-7} \left( \frac{1}{\text{ppm}} \right) \left( \frac{\text{g mole}}{\text{scm}} \right) \left( \frac{\text{MJ}}{\text{kcal}} \right)$$

where the standard temperature for  $\left( \frac{\text{g mole}}{\text{scm}} \right)$  is 20°C;

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$C_i$  = Concentration of sample component  $i$  in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 or 90 (Reapproved 1994) (Incorporated by reference as specified in §60.17); and

$H_i$  = Net heat of combustion of sample component  $i$ , kcal/g mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 or 88 or D4809-95 (incorporated by reference as specified in §60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- (5) The maximum permitted velocity,  $V_{max}$ , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10}(V_{max})=(H_T+28.8)/31.7$$

$V_{max}$  = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

- (6) The maximum permitted velocity,  $V_{max}$ , for air-assisted flares shall be determined by the following equation.

$$V_{max} = 8.706+0.7084 (H_T)$$

$V_{max}$  = Maximum permitted velocity, m/sec

8.706 = Constant

0.7084 = Constant

$H_T$  = The net heating value as determined in paragraph (f)(3).

[51 FR 2701, Jan. 21, 1986, as amended at 63 FR 24444, May 4, 1998; 65 FR 61752, Oct. 17, 2000]

**§ 60.19 General notification and reporting requirements.**

- (a) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.
- (b) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be delivered or postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery, including the use of electronic media, agreed to by the permitting authority, is acceptable.
- (c) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (d) If an owner or operator of an affected facility in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is

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consistent with the reporting frequency(ies) specified for such facility under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. The allowance in the previous sentence applies in each State beginning 1 year after the affected facility is required to be in compliance with the applicable subpart in this part. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.

- (e) If an owner or operator supervises one or more stationary sources affected by standards set under this part and standards set under part 61, part 63, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State with an approved permit program) a common schedule on which periodic reports required by each applicable standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the applicable subpart in this part, or 1 year after the stationary source is required to be in compliance with the applicable 40 CFR part 61 or part 63 of this chapter standard, whichever is latest. Procedures governing the implementation of this provision are specified in paragraph (f) of this section.
- (f)
- (1)
- (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (f)(2) and (f)(3) of this section, the owner or operator of an affected facility remains strictly subject to the requirements of this part.
- (ii) An owner or operator shall request the adjustment provided for in paragraphs (f)(2) and (f)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.
- (2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.
- (3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.
- (4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

[59 FR 12428, Mar. 16, 1994, as amended at 64 FR 7463, Feb. 12, 1998]



APPENDIX 40 CFR 60 SUBPART Eb

STANDARDS OF PERFORMANCE FOR LARGE MUNICIPAL WASTE COMBUSTORS FOR WHICH CONSTRUCTION IS COMMENCED AFTER SEPTEMBER 20, 1994 OR FOR WHICH MODIFICATION OR RECONSTRUCTION IS COMMENCED AFTER JUNE 19, 1996  
(version dated 04/21/2008)

E.U. ID No.	Brief Description
-006	Municipal Waste Combustion Unit No. 3

**Federal Regulations Adopted by Reference**

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

*Federal Revision Date: May 10, 2006*

*Rule Effective Date: June 21, 2002*

*Standardized Conditions Revision Date: April 21, 2008*

**40 CFR Part 60, Subpart Eb - Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996**

Source: 60 FR 65419, Dec. 19, 1995, unless otherwise noted.

**Index**

- 40 CFR 60.50b Applicability and delegation of authority.
- 40 CFR 60.51b Definitions.
- 40 CFR 60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.
- 40 CFR 60.53b Standards for municipal waste combustor operating practices.
- 40 CFR 60.54b Standards for municipal waste combustor operator training and certification.
- 40 CFR 60.55b Standards for municipal waste combustor fugitive ash emissions.
- 40 CFR 60.56b Standards for air curtain incinerators.
- 40 CFR 60.57b Siting requirements.
- 40 CFR 60.58b Compliance and performance testing.
- 40 CFR 60.59b Reporting and recordkeeping requirements.
- 40 CFR 60.19 General notification and reporting requirements.

**End of Index**

**§ 60.50b Applicability and delegation of authority.**

- (a) The affected facility to which this subpart applies is each municipal waste combustor unit with a combustion capacity greater than 250 tons per day of municipal solid waste for which construction, modification, or reconstruction is commenced after September 20, 1994.
- (b) Any waste combustion unit that is capable of combusting more than 250 tons per day of municipal solid waste and is subject to a federally enforceable permit limiting the maximum amount of municipal solid waste that may be combusted in the unit to less than or equal to 11 tons per day is not subject to this subpart if the owner or operator:
  - (1) Notifies EPA of an exemption claim;
  - (2) Provides a copy of the federally enforceable permit that limits the firing of municipal solid waste to less than 11 tons per day; and
  - (3) Keeps records of the amount of municipal solid waste fired on a daily basis.
- (c) An affected facility to which this subpart applies is not subject to subpart E or Ea of this part.
- (d) Physical or operational changes made to an existing municipal waste combustor unit primarily for the purpose of complying with emission guidelines under subpart Cb are not considered a modification or reconstruction and do not result in an existing municipal waste combustor unit becoming subject to this subpart.

**STANDARDS OF PERFORMANCE FOR LARGE MUNICIPAL WASTE COMBUSTORS FOR WHICH CONSTRUCTION IS COMMENCED AFTER SEPTEMBER 20, 1994 OR FOR WHICH MODIFICATION OR RECONSTRUCTION IS COMMENCED AFTER JUNE 19, 1996**  
(version dated 04/21/2008)

- (e) A qualifying small power production facility, as defined in section 3(17)(C) of the Federal Power Act (16 U.S.C. 796(17)(C)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.
- (f) A qualifying cogeneration facility, as defined in section 3(18)(B) of the Federal Power Act (16 U.S.C. 796(18)(B)), that burns homogeneous waste (such as automotive tires or used oil, but not including refuse-derived fuel) for the production of electric energy and steam or forms of useful energy (such as heat) that are used for industrial, commercial, heating, or cooling purposes, is not subject to this subpart if the owner or operator of the facility notifies EPA of this exemption and provides data documenting that the facility qualifies for this exemption.
- (g) Any unit combusting a single-item waste stream of tires is not subject to this subpart if the owner or operator of the unit:
  - (1) Notifies EPA of an exemption claim; and
  - (2) [Reserved]
  - (3) Provides data documenting that the unit qualifies for this exemption.
- (h) Any unit required to have a permit under section 3005 of the Solid Waste Disposal Act is not subject to this subpart.
- (i) Any materials recovery facility (including primary or secondary smelters) that combusts waste for the primary purpose of recovering metals is not subject to this subpart.
- (j) Any cofired combustor, as defined under §60.51b, that meets the capacity specifications in paragraph (a) of this section is not subject to this subpart if the owner or operator of the cofired combustor:
  - (1) Notifies EPA of an exemption claim;
  - (2) Provides a copy of the federally enforceable permit (specified in the definition of cofired combustor in this section); and
  - (3) Keeps a record on a calendar quarter basis of the weight of municipal solid waste combusted at the cofired combustor and the weight of all other fuels combusted at the cofired combustor.
- (k) Air curtain incinerators, as defined under §60.51b, located at a plant that meet the capacity specifications in paragraph (a) of this section and that combust a fuel stream composed of 100 percent yard waste are exempt from all provisions of this subpart except the opacity limit under §60.56b, the testing procedures under §60.58b(l), and the reporting and recordkeeping provisions under §60.59b (e) and (i).
- (l) Air curtain incinerators located at plants that meet the capacity specifications in paragraph (a) of this section combusting municipal solid waste other than yard waste are subject to all provisions of this subpart.
- (m) Pyrolysis/combustion units that are an integrated part of a plastics/rubber recycling unit (as defined in §60.51b) are not subject to this subpart if the owner or operator of the plastics/rubber recycling unit keeps records of the weight of plastics, rubber, and/or rubber tires processed on a calendar quarter basis; the weight of chemical plant feedstocks and petroleum refinery feedstocks produced and marketed on a calendar quarter basis; and the name and address of the purchaser of the feedstocks. The combustion of gasoline, diesel fuel, jet fuel, fuel oils, residual oil, refinery gas, petroleum coke, liquified petroleum gas, propane, or butane produced by chemical plants or petroleum refineries that use feedstocks produced by plastics/rubber recycling units are not subject to this subpart.
- (n) The following authorities are retained by the Administrator of the U.S. EPA and are not transferred to a State:
  - (1) Approval of exemption claims in paragraphs (b), (e), (f), (g) and (j) of this section;
  - (2) Enforceability under Federal law of all Federally enforceable, as defined in §60.51b, limitations and conditions;
  - (3) Determination of compliance with the siting requirements as specified in §60.57b(a);

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- (4) Acceptance of relationship between carbon monoxide and oxygen as part of initial and annual performance tests as specified in §60.58b(b)(7);
  - (5) Approval of other monitoring systems used to obtain emissions data when data is not obtained by CEMS as specified in §60.58b(e)(14), (h)(12), (i)(11), and (n)(14), and (p)(11);
  - (6) Approval of a site-specific monitoring plan for the continuous emission monitoring system specified in “60.58b(n)(13) and (o) of this section or the continuous automated sampling system specified in §60.58b(p)(10) and (q) of this section;
  - (7) Approval of major alternatives to test methods;
  - (8) Approval of major alternatives to monitoring;
  - (9) Waiver of recordkeeping; and
  - (10) Performance test and data reduction waivers under “608(b).
- (o) This subpart shall become effective June 19, 1996.
- (p) Cement kilns firing municipal solid waste are not subject to this subpart.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45120, 45125, Aug. 25, 1997; 71 FR 27335, May 10, 2006]

**§ 60.51b Definitions.**

*Administrator means:*

- (1) For approved and effective State Section 111(d)/129 plans, the Director of the State air pollution control agency, or employee of the State air pollution control agency that is delegated the authority to perform the specified task;
- (2) For Federal Section 111(d)/129 plans, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task; and
- (3) For NSPS, the Administrator of the EPA, an employee of the EPA, the Director of the State air pollution control agency, or employee of the State air pollution control agency to whom the authority has been delegated by the Administrator of the EPA to perform the specified task.

*Air curtain incinerator* means an incinerator that operates by forcefully projecting a curtain of air across an open chamber or pit in which burning occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor.

*Batch municipal waste combustor* means a municipal waste combustor unit designed so that it cannot combust municipal solid waste continuously 24 hours per day because the design does not allow waste to be fed to the unit or ash to be removed while combustion is occurring.

*Bubbling fluidized bed combustor* means a fluidized bed combustor in which the majority of the bed material remains in a fluidized state in the primary combustion zone.

*Calendar quarter* means a consecutive 3-month period (nonoverlapping) beginning on January 1, April 1, July 1, and October 1.

*Calendar year* means the period including 365 days starting January 1 and ending on December 31.

*Chief facility operator* means the person in direct charge and control of the operation of a municipal waste combustor and who is responsible for daily onsite supervision, technical direction, management, and overall performance of the facility.

*Circulating fluidized bed combustor* means a fluidized bed combustor in which the majority of the fluidized bed material is carried out of the primary combustion zone and is transported back to the primary zone through a recirculation loop.

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*Clean wood* means untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, which is defined elsewhere in this section, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles), which are exempt from the definition of municipal solid waste in this section.

*Cofired combustor* means a unit combusting municipal solid waste with nonmunicipal solid waste fuel (e.g., coal, industrial process waste) and subject to a federally enforceable permit limiting the unit to combusting a fuel feed stream, 30 percent or less of the weight of which is comprised, in aggregate, of municipal solid waste as measured on a calendar quarter basis.

*Continuous automated sampling system* means the total equipment and procedures for automated sample collection and sample recovery/analysis to determine a pollutant concentration or emission rate by collecting a single or multiple integrated sample(s) of the pollutant (or diluent gas) for subsequent on-or off-site analysis; integrated sample(s) collected are representative of the emissions for the sample time as specified by the applicable requirement.

*Continuous emission monitoring system* means a monitoring system for continuously measuring the emissions of a pollutant from an affected facility.

*Dioxin/furan* means tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

*EPA* means the Administrator of the U.S. EPA or employee of the U.S. EPA who is delegated to perform the specified task.

*Federally enforceable* means all limitations and conditions that are enforceable by EPA including the requirements of 40 CFR part 60, 40 CFR part 61, and 40 CFR part 63, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*First calendar half* means the period starting on January 1 and ending on June 30 in any year.

*Four-hour block average* or *4-hour block average* means the average of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over 4-hour periods of time from 12:00 midnight to 4 a.m., 4 a.m. to 8 a.m., 8 a.m. to 12:00 noon, 12:00 noon to 4 p.m., 4 p.m. to 8 p.m., and 8 p.m. to 12:00 midnight.

*Mass burn refractory municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a refractory wall furnace. Unless otherwise specified, this includes combustors with a cylindrical rotary refractory wall furnace.

*Mass burn rotary waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a cylindrical rotary waterwall furnace or on a tumbling-tile grate.

*Mass burn waterwall municipal waste combustor* means a field-erected combustor that combusts municipal solid waste in a waterwall furnace.

*Materials separation plan* means a plan that identifies both a goal and an approach to separate certain components of municipal solid waste for a given service area in order to make the separated materials available for recycling. A materials separation plan may include elements such as dropoff facilities, buy-back or deposit-return incentives, curbside pickup programs, or centralized mechanical separation systems. A materials separation plan may include different goals or approaches for different subareas in the service area, and may include no materials separation activities for certain subareas or, if warranted, an entire service area.

*Maximum demonstrated municipal waste combustor unit load* means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under §60.52b(c).

*Maximum demonstrated particulate matter control device temperature* means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified under §60.52b(c).

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*Modification or modified municipal waste combustor unit* means a municipal waste combustor unit to which changes have been made after June 19, 1996 if the cumulative cost of the changes, over the life of the unit, exceed 50 percent of the original cost of construction and installation of the unit (not including the cost of any land purchased in connection with such construction or installation) updated to current costs; or any physical change in the municipal waste combustor unit or change in the method of operation of the municipal waste combustor unit increases the amount of any air pollutant emitted by the unit for which standards have been established under section 129 or section 111. Increases in the amount of any air pollutant emitted by the municipal waste combustor unit are determined at 100-percent physical load capability and downstream of all air pollution control devices, with no consideration given for load restrictions based on permits or other nonphysical operational restrictions.

*Modular excess-air municipal waste combustor* means a combustor that combusts municipal solid waste and that is not field-erected and has multiple combustion chambers, all of which are designed to operate at conditions with combustion air amounts in excess of theoretical air requirements.

*Modular starved-air municipal waste combustor* means a combustor that combusts municipal solid waste and that is not field-erected and has multiple combustion chambers in which the primary combustion chamber is designed to operate at substoichiometric conditions.

*Municipal solid waste or municipal-type solid waste or MSW* means household, commercial/retail, and/or institutional waste. Household waste includes material discarded by single and multiple residential dwellings, hotels, motels, and other similar permanent or temporary housing establishments or facilities. Commercial/retail waste includes material discarded by stores, offices, restaurants, warehouses, nonmanufacturing activities at industrial facilities, and other similar establishments or facilities. Institutional waste includes material discarded by schools, nonmedical waste discarded by hospitals, material discarded by nonmanufacturing activities at prisons and government facilities, and material discarded by other similar establishments or facilities. Household, commercial/retail, and institutional waste does not include used oil; sewage sludge; wood pallets; construction, renovation, and demolition wastes (which includes but is not limited to railroad ties and telephone poles); clean wood; industrial process or manufacturing wastes; medical waste; or motor vehicles (including motor vehicle parts or vehicle fluff). Household, commercial/retail, and institutional wastes include:

- (1) Yard waste;
- (2) Refuse-derived fuel; and
- (3) Motor vehicle maintenance materials limited to vehicle batteries and tires except as specified in §60.50b(g).

*Municipal waste combustor, MWC, or municipal waste combustor unit:*

- (1) Means any setting or equipment that combusts solid, liquid, or gasified municipal solid waste including, but not limited to, field-erected incinerators (with or without heat recovery), modular incinerators (starved-air or excess-air), boilers (i.e., steam generating units), furnaces (whether suspension-fired, grate-fired, mass-fired, air curtain incinerators, or fluidized bed-fired), and pyrolysis/combustion units. Municipal waste combustors do not include pyrolysis/combustion units located at a plastics/rubber recycling unit (as specified in §60.50b(m)). Municipal waste combustors do not include cement kilns firing municipal solid waste (as specified in §60.50b(p)). Municipal waste combustors do not include internal combustion engines, gas turbines, or other combustion devices that combust landfill gases collected by landfill gas collection systems.
- (2) The boundaries of a municipal solid waste combustor are defined as follows. The municipal waste combustor unit includes, but is not limited to, the municipal solid waste fuel feed system, grate system, flue gas system, bottom ash system, and the combustor water system. The municipal waste combustor boundary starts at the municipal solid waste pit or hopper and extends through:
  - (i) The combustor flue gas system, which ends immediately following the heat recovery equipment or, if there is no heat recovery equipment, immediately following the combustion chamber,

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- (ii) The combustor bottom ash system, which ends at the truck loading station or similar ash handling equipment that transfer the ash to final disposal, including all ash handling systems that are connected to the bottom ash handling system; and
  - (iii) The combustor water system, which starts at the feed water pump and ends at the piping exiting the steam drum or superheater.
- (3) The municipal waste combustor unit does not include air pollution control equipment, the stack, water treatment equipment, or the turbine-generator set.

*Municipal waste combustor acid gases* means all acid gases emitted in the exhaust gases from municipal waste combustor units including, but not limited to, sulfur dioxide and hydrogen chloride gases.

*Municipal waste combustor metals* means metals and metal compounds emitted in the exhaust gases from municipal waste combustor units.

*Municipal waste combustor organics* means organic compounds emitted in the exhaust gases from municipal waste combustor units and includes tetra-through octa- chlorinated dibenzo-p-dioxins and dibenzofurans.

*Municipal waste combustor plant* means one or more affected facilities (as defined in §60.50b) at the same location.

*Municipal waste combustor unit capacity* means the maximum charging rate of a municipal waste combustor unit expressed in tons per day of municipal solid waste combusted, calculated according to the procedures under §60.58b(j). Section 60.58b(j) includes procedures for determining municipal waste combustor unit capacity for continuous and batch feed municipal waste combustors.

*Municipal waste combustor unit load* means the steam load of the municipal waste combustor unit measured as specified in §60.58b(i)(6).

*Particulate matter* means total particulate matter emitted from municipal waste combustor units as measured by EPA Reference Method 5 (see §60.58b(c)).

*Plastics/rubber recycling unit* means an integrated processing unit where plastics, rubber, and/or rubber tires are the only feed materials (incidental contaminants may be included in the feed materials) and they are processed into a chemical plant feedstock or petroleum refinery feedstock, where the feedstock is marketed to and used by a chemical plant or petroleum refinery as input feedstock. The combined weight of the chemical plant feedstock and petroleum refinery feedstock produced by the plastics/rubber recycling unit on a calendar quarter basis shall be more than 70 percent of the combined weight of the plastics, rubber, and rubber tires processed by the plastics/rubber recycling unit on a calendar quarter basis. The plastics, rubber, and/or rubber tire feed materials to the plastics/rubber recycling unit may originate from the separation or diversion of plastics, rubber, or rubber tires from MSW or industrial solid waste, and may include manufacturing scraps, trimmings, and off-specification plastics, rubber, and rubber tire discards. The plastics, rubber, and rubber tire feed materials to the plastics/rubber recycling unit may contain incidental contaminants (e.g., paper labels on plastic bottles, metal rings on plastic bottle caps, etc.).

*Potential hydrogen chloride emission concentration* means the hydrogen chloride emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

*Potential mercury emission concentration* means the mercury emission concentration that would occur from combustion of municipal solid waste in the absence of any mercury emissions control.

*Potential sulfur dioxide emissions* means the sulfur dioxide emission concentration that would occur from combustion of municipal solid waste in the absence of any emission controls for municipal waste combustor acid gases.

*Pulverized coal/refuse-derived fuel mixed fuel-fired combustor* means a combustor that fires coal and refuse-derived fuel simultaneously, in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the unit where it is fired in suspension. This includes both conventional pulverized coal and micropulverized coal.

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*Pyrolysis/combustion unit* means a unit that produces gases, liquids, or solids through the heating of municipal solid waste, and the gases, liquids, or solids produced are combusted and emissions vented to the atmosphere.

*Reconstruction* means rebuilding a municipal waste combustor unit for which the reconstruction commenced after June 19, 1996, and the cumulative costs of the construction over the life of the unit exceed 50 percent of the original cost of construction and installation of the unit (not including any cost of land purchased in connection with such construction or installation) updated to current costs (current dollars).

*Refractory unit or refractory wall furnace* means a combustion unit having no energy recovery (e.g., via a waterwall) in the furnace (i.e., radiant heat transfer section) of the combustor.

*Refuse-derived fuel* means a type of municipal solid waste produced by processing municipal solid waste through shredding and size classification. This includes all classes of refuse-derived fuel including low-density fluff refuse-derived fuel through densified refuse-derived fuel and pelletized refuse-derived fuel.

*Refuse-derived fuel stoker* means a steam generating unit that combusts refuse-derived fuel in a semisuspension firing mode using air-fed distributors.

*Same location* means the same or contiguous property that is under common ownership or control including properties that are separated only by a street, road, highway, or other public right-of-way. Common ownership or control includes properties that are owned, leased, or operated by the same entity, parent entity, subsidiary, subdivision, or any combination thereof including any municipality or other governmental unit, or any quasi-governmental authority (e.g., a public utility district or regional waste disposal authority).

*Second calendar half* means the period starting July 1 and ending on December 31 in any year.

*Shift supervisor* means the person who is in direct charge and control of the operation of a municipal waste combustor and who is responsible for onsite supervision, technical direction, management, and overall performance of the facility during an assigned shift.

*Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor* means a combustor that fires coal and refuse-derived fuel simultaneously, in which coal is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Standard conditions* means a temperature of 20 °C and a pressure of 101.3 kilopascals.

*Total mass dioxin/furan or total mass* means the total mass of tetra- through octa- chlorinated dibenzo-p-dioxins and dibenzofurans, as determined using EPA Reference Method 23 and the procedures specified under §60.58b(g).

*Tumbling-tile* means a grate tile hinged at one end and attached to a ram at the other end. When the ram extends, the grate tile rotates around the hinged end.

*Twenty-four hour daily average or 24-hour daily average* means either the arithmetic mean or geometric mean (as specified) of all hourly emission concentrations when the affected facility is operating and combusting municipal solid waste measured over a 24-hour period between 12:00 midnight and the following midnight.

*Untreated lumber* means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Untreated lumber does not include wood products that have been painted, pigment-stained, or "pressure-treated." Pressure-treating compounds include, but are not limited to, chromate copper arsenate, pentachlorophenol, and creosote.

*Waterwall furnace* means a combustion unit having energy (heat) recovery in the furnace (i.e., radiant heat transfer section) of the combustor.

*Yard waste* means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that are generated by residential, commercial/retail, institutional, and/or industrial sources as part of maintenance activities associated with yards or other private or public lands. Yard waste does not include construction, renovation, and demolition wastes, which are exempt

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from the definition of municipal solid waste in this section. Yard waste does not include clean wood, which is exempt from the definition of municipal solid waste in this section.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45121, 45126, Aug. 25, 1997; 66 FR 36476, July 12, 2001; 71 FR 27335, May 10, 2006]

**§ 60.52b Standards for municipal waste combustor metals, acid gases, organics, and nitrogen oxides.**

- (a) The limits for municipal waste combustor metals are specified in paragraphs (a)(1) through (a)(5) of this section.
- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the limits specified in paragraph (a)(1)(i) or (a)(1)(ii) of this section.
    - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 24 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
    - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 20 milligrams per dry standard cubic meter, corrected to 7 percent oxygen.
  - (2) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 10 percent opacity (6-minute average).
  - (3) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain cadmium in excess of the limits specified in paragraph (a)(3)(i) or (a)(3)(ii) of this section.
    - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 20 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
    - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 10 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
  - (4) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from the affected facility any gases that contain lead in excess of the limits specified in paragraph (a)(4)(i) or (a)(4)(ii) of this section.
    - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994, and on or before December 19, 2005, the emission limit is 200 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
    - (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 140 micrograms per dry standard cubic meter, corrected to 7 percent oxygen.
  - (5) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from the affected facility any gases that contain mercury in excess of the limits specified in paragraph (a)(5)(i) or (a)(5)(ii) of this section.
    - (i) For affected facilities that commenced construction, modification, or reconstruction after September 20, 1994 and on or before December 19, 2005, the emission limit is 80 micrograms per dry standard cubic meter or 15



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percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.

- (ii) For affected facilities that commenced construction, modification, or reconstruction after December 19, 2005, the emission limit is 50 micrograms per dry standard cubic meter, or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent.
- (b) The limits for municipal waste combustor acid gases are specified in paragraphs (b)(1) and (b)(2) of this section.
- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain sulfur dioxide in excess of 30 parts per million by volume or 20 percent of the potential sulfur dioxide emission concentration (80-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent. The averaging time is specified under §60.58b(e).
  - (2) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain hydrogen chloride in excess of 25 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent.
- (c) The limits for municipal waste combustor organics are specified in paragraphs (c)(1) and (c)(2) of this section.
- (1) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility for which construction, modification or reconstruction commences on or before November 20, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan emissions that exceed 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen, for the first 3 years following the date of initial startup. After the first 3 years following the date of initial startup, no owner or operator shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan total mass emissions that exceed 13 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
  - (2) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility for which construction, modification, or reconstruction commences after November 20, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain dioxin/furan total mass emissions that exceed 13 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen.
- (d) The limits for nitrogen oxides are specified in paragraphs (d)(1) and (d)(2) of this section.
- (1) During the first year of operation after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 180 parts per million by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under §60.58b(h).
  - (2) After the first year of operation following the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides in excess of 150 parts per million by volume, corrected to 7 percent oxygen (dry basis). The averaging time is specified under §60.58b(h).

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45121, 45126, Aug. 25, 1997; 71 FR 27336, May 10, 2006]

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**§ 60.53b Standards for municipal waste combustor operating practices.**

- (a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged into the atmosphere from that affected facility any gases that contain carbon monoxide in excess of the emission limits specified in table 1 of this subpart.

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**Table 1—Municipal Waste Combustor Operating Standards**

<b>Municipal waste combustor technology</b>	<b>Carbon monoxide emission limit (parts per million by volume)<sup>a</sup></b>	<b>Averaging time (hours)<sup>b</sup></b>
Mass burn waterwall	100	4
Mass burn refractory	100	4
Mass burn rotary waterwall	100	24
Modular starved air	50	4
Modular excess air	50	4
Refuse-derived fuel stoker	150	24
Bubbling fluidized bed combustor	100	4
Circulating fluidized bed combustor	100	4
Pulverized coal/refuse-derived fuel mixed fuel-fired combustor	150	4
Spreader stoker coal/refuse-derived fuel mixed fuel-fired combustor	150	24

<sup>a</sup>Measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen (dry basis). The averaging times are specified in greater detail in §60.58b(i).

<sup>b</sup>Averaging times are 4-hour or 24-hour block averages.

- (b) No owner or operator of an affected facility shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in §60.51b, except as specified in paragraphs (b)(1) and (b)(2) of this section. The averaging time is specified under §60.58b(i).
- (1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no municipal waste combustor unit load limit is applicable if the provisions of paragraph (b)(2) of this section are met.
  - (2) The municipal waste combustor unit load limit may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The municipal waste combustor unit load limit continues to apply, and remains enforceable, until and unless the Administrator grants the waiver.
- (c) No owner or operator of an affected facility shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17 °C above the maximum demonstrated particulate matter control device temperature as defined in §60.51b, except as specified in paragraphs (c)(1) and (c)(2) of this section. The averaging time is specified under §60.58b(i). The requirements specified in this paragraph apply to each particulate matter control device utilized at the affected facility.

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- (1) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no particulate matter control device temperature limitations are applicable if the provisions of paragraph (b)(2) of this section are met.
- (2) The particulate matter control device temperature limits may be waived in writing by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions. The temperature limits continue to apply, and remain enforceable, until and unless the Administrator grants the waiver.
- (d) Paragraph (m)(2) of §60.58b addresses treatment of activated carbon injection rate during dioxin/furan or mercury testing.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 71 FR 27336, May 10, 2006]

**§ 60.54b Standards for municipal waste combustor operator training and certification.**

- (a) No later than the date 6 months after the date of startup of an affected facility or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall obtain and maintain a current provisional operator certification from either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference—see §60.17 of subpart A of this part)] or a State certification program.
- (b) Not later than the date 6 months after the date of startup of an affected facility or on December 19, 1996, whichever is later, each chief facility operator and shift supervisor shall have completed full certification or shall have scheduled a full certification exam with either the American Society of Mechanical Engineers [QRO-1-1994 (incorporated by reference—see §60.17 of subpart A of this part)] or a State certification program.
- (c) No owner or operator of an affected facility shall allow the facility to be operated at any time unless one of the following persons is on duty and at the affected facility: A fully certified chief facility operator, a provisionally certified chief facility operator who is scheduled to take the full certification exam according to the schedule specified in paragraph (b) of this section, a fully certified shift supervisor, or a provisionally certified shift supervisor who is scheduled to take the full certification exam according to the schedule specified in paragraph (b) of this section.
  - (1) The requirement specified in paragraph (c) of this section shall take effect 6 months after the date of startup of the affected facility or on December 19, 1996, whichever is later.
  - (2) If both the certified chief facility operator and certified shift supervisor are unavailable, a provisionally certified control room operator on site at the municipal waste combustion unit may fulfill the certified operator requirement. Depending on the length of time that a certified chief facility operator and certified shift supervisor are away, the owner or operator of the affected facility must meet one of three criteria:
    - (i) When the certified chief facility operator and certified shift supervisor are both off site for 12 hours or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor.
    - (ii) When the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for two weeks or less, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator. However, the owner or operator of the affected facility must record the period when the certified chief facility operator and certified shift supervisor are off site and include that information in the annual report as specified under §60.59b(g)(5).
    - (iii) When the certified chief facility operator and certified shift supervisor are off site for more than two weeks, and no other certified operator is on site, the provisionally certified control room operator may perform the duties of the certified chief facility operator or certified shift supervisor without approval by the Administrator. However, the owner or operator of the affected facility must take two actions:

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- (A) Notify the Administrator in writing. In the notice, state what caused the absence and what actions are being taken by the owner or operator of the facility to ensure that a certified chief facility operator or certified shift supervisor is on site as expeditiously as practicable.
- (B) Submit a status report and corrective action summary to the Administrator every four weeks following the initial notification. If the Administrator provides notice that the status report or corrective action summary is disapproved, the municipal waste combustion unit may continue operation for 90 days, but then must cease operation. If corrective actions are taken in the 90-day period such that the Administrator withdraws the disapproval, municipal waste combustion unit operation may continue.
- (3) A provisionally certified operator who is newly promoted or recently transferred to a shift supervisor position or a chief facility operator position at the municipal waste combustion unit may perform the duties of the certified chief facility operator or certified shift supervisor without notice to, or approval by, the Administrator for up to six months before taking the ASME QRO certification exam.
- (d) All chief facility operators, shift supervisors, and control room operators at affected facilities must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility or by December 19, 1996, whichever is later.
- (e) The owner or operator of an affected facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraphs (e)(1) through (e)(11) of this section.
  - (1) A summary of the applicable standards under this subpart;
  - (2) A description of basic combustion theory applicable to a municipal waste combustor unit;
  - (3) Procedures for receiving, handling, and feeding municipal solid waste;
  - (4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;
  - (5) Procedures for maintaining proper combustion air supply levels;
  - (6) Procedures for operating the municipal waste combustor unit within the standards established under this subpart;
  - (7) Procedures for responding to periodic upset or off-specification conditions;
  - (8) Procedures for minimizing particulate matter carryover;
  - (9) Procedures for handling ash;
  - (10) Procedures for monitoring municipal waste combustor unit emissions; and
  - (11) Reporting and recordkeeping procedures.
- (f) The owner or operator of an affected facility shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) of this section with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.
  - (1) Each person specified in paragraph (f) of this section shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii) of this section whichever is later.
    - (i) The date 6 months after the date of startup of the affected facility;
    - (ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or
    - (iii) December 19, 1996.

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- (2) Annually, following the initial review required by paragraph (f)(1) of this section.
- (g) The operating manual required by paragraph (e) of this section shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f) of this section. The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 71 FR 27337, May 10, 2006]

**§ 60.55b Standards for municipal waste combustor fugitive ash emissions.**

- (a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, no owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in §60.58b(k), except as provided in paragraphs (b) and (c) of this section.
- (b) The emission limit specified in paragraph (a) of this section does not cover visible emissions discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph (a) of this section does cover visible emissions discharged to the atmosphere from buildings or enclosures of ash conveying systems.
- (c) The provisions specified in paragraph (a) of this section do not apply during maintenance and repair of ash conveying systems.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997]

**§ 60.56b Standards for air curtain incinerators.**

On and after the date on which the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an air curtain incinerator with the capacity to combust greater than 250 tons per day of municipal solid waste and that combusts a fuel feed stream composed of 100 percent yard waste and no other municipal solid waste materials shall at no time cause to be discharged into the atmosphere from that incinerator any gases that exhibit greater than 10-percent opacity (6-minute average), except that an opacity level of up to 35 percent (6-minute average) is permitted during startup periods during the first 30 minutes of operation of the unit.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997]

**§ 60.57b Siting requirements.**

- (a) The owner or operator of an affected facility shall prepare a materials separation plan, as defined in §60.51b, for the affected facility and its service area, and shall comply with the requirements specified in paragraphs (a)(1) through (a)(10) of this section. The initial application is defined as representing a good faith submittal as determined by EPA.
- (1) The owner or operator shall prepare a preliminary draft materials separation plan and shall make the plan available to the public as specified in paragraphs (a)(1)(i) and (a)(1)(ii) of this section.
- (i) The owner or operator shall distribute the preliminary draft materials separation plan to the principal public libraries in the area where the affected facility is to be constructed.
- (ii) The owner or operator shall publish a notification of a public meeting in the principal newspaper(s) serving the area where the affected facility is to be constructed and where the waste treated by the affected facility will primarily be collected. As a minimum, the notification shall include the information specified in paragraphs (a)(1)(ii)(A) through (a)(1)(ii)(D) of this section.
- (A) The date, time, and location of the public meeting.
- (B) The location of the public libraries where the preliminary draft materials separation plan may be found, including normal business hours of the libraries.
- (C) An agenda of the issues to be discussed at the public meeting.

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- (D) The dates that the public comment period on the preliminary draft materials separation plan begins and ends.
- (2) The owner or operator shall conduct a public meeting, accept comments on the preliminary draft materials separation plan, and comply with the requirements specified in paragraphs (a)(2)(i) through (a)(2)(iv) of this section.
- (i) The public meeting shall be conducted in the county where the affected facility is to be located.
- (ii) The public meeting shall be scheduled to occur 30 days or more after making the preliminary draft materials separation plan available to the public as specified under paragraph (a)(1) of this section.
- (iii) Suggested issues to be addressed at the public meeting are listed in paragraphs (a)(2)(iii)(A) through (a)(2)(iii)(H) of this section.
- (A) The expected size of the service area for the affected facility.
- (B) The amount of waste generation anticipated for the service area.
- (C) The types and estimated amounts of materials proposed for separation.
- (D) The methods proposed for materials separation.
- (E) The amount of residual waste to be disposed.
- (F) Alternate disposal methods for handling the residual waste.
- (G) Identification of the location(s) where responses to public comment on the preliminary draft materials separation plan will be available for inspection, as specified in paragraphs (a)(3) and (a)(4) of this section.
- (H) Identification of the locations where the final draft materials separation plan will be available for inspection, as specified in paragraph (a)(7).
- (iv) Nothing in this section shall preclude an owner or operator from combining this public meeting with any other public meeting required as part of any other Federal, State, or local permit review process except the public meeting required under paragraph (b)(4) of this section.
- (3) Following the public meeting required by paragraph (a)(2) of this section, the owner or operator shall prepare responses to the comments received at the public meeting.
- (4) The owner or operator shall make the document summarizing responses to public comments available to the public (including distribution to the principal public libraries used to announce the meeting) in the service area where the affected facility is to be located.
- (5) The owner or operator shall prepare a final draft materials separation plan for the affected facility considering the public comments received at the public meeting.
- (6) As required under §60.59b(a), the owner or operator shall submit to EPA a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and copies of both the preliminary and final draft materials separation plans on or before the time the facility's application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable.
- (7) As part of the distribution of the siting analysis required under paragraph (b)(3) of this section, the owner or operator shall make the final draft materials separation plan required under paragraph (a)(5) of this section available to the public, as specified in paragraph (b)(3) of this section.
- (8) As part of the public meeting for review of the siting analysis required under paragraph (b)(4) of this section, the owner or operator shall address questions concerning the final draft materials separation plan required by paragraph (a)(5) of this section including discussion of how the final draft materials separation plan has changed from the

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preliminary draft materials separation plan that was discussed at the first public meeting required by paragraph (a)(2) of this section.

- (9) If the owner or operator receives any comments on the final draft materials separation plan during the public meeting required in paragraph (b)(4) of this section, the owner or operator shall respond to those comments in the document prepared in accordance with paragraph (b)(5) of this section.
- (10) The owner or operator shall prepare a final materials separation plan and shall submit, as required under §60.59b(b)(5)(ii), the final materials separation plan as part of the initial notification of construction.
- (b) The owner or operator of an affected facility for which the initial application for a construction permit under 40 CFR part 51, subpart I, or part 52, as applicable, is submitted after December 19, 1995 shall prepare a siting analysis in accordance with paragraphs (b)(1) and (b)(2) of this section and shall comply with the requirements specified in paragraphs (b)(3) through (b)(7) of this section.
  - (1) The siting analysis shall be an analysis of the impact of the affected facility on ambient air quality, visibility, soils, and vegetation.
  - (2) The analysis shall consider air pollution control alternatives that minimize, on a site-specific basis, to the maximum extent practicable, potential risks to the public health or the environment.
  - (3) The owner or operator shall make the siting analysis and final draft materials separation plan required by paragraph (a)(5) of this section available to the public as specified in paragraphs (b)(3)(i) and (b)(3)(ii) of this section.
    - (i) The owner or operator shall distribute the siting analysis and final draft materials separation plan to the principal public libraries in the area where the affected facility is to be constructed.
    - (ii) The owner or operator shall publish a notification of a public meeting in the principal newspaper(s) serving the area where the affected facility is to be constructed and where the waste treated by the affected facility will primarily be collected. As a minimum, the notification shall include the information specified in paragraphs (b)(3)(ii)(A) through (b)(3)(ii)(D) of this section.
      - (A) The date, time, and location of the public meeting.
      - (B) The location of the public libraries where the siting analyses and final draft materials separation plan may be found, including normal business hours.
      - (C) An agenda of the issues to be discussed at the public meeting.
      - (D) The dates that the public comment period on the siting analyses and final draft materials separation plan begins and ends.
  - (4) The owner or operator shall conduct a public meeting and accept comments on the siting analysis and the final draft materials separation plan required under paragraph (a)(5) of this section. The public meeting shall be conducted in the county where the affected facility is to be located and shall be scheduled to occur 30 days or more after making the siting analysis available to the public as specified under paragraph (b)(3) of this section.
  - (5) The owner or operator shall prepare responses to the comments on the siting analysis and the final draft materials separation plan that are received at the public meeting.
  - (6) The owner or operator shall make the document summarizing responses to public comments available to the public (including distribution to all public libraries) in the service area where the affected facility is to be located.
  - (7) As required under §60.59b(b)(5), the owner or operator shall submit a copy of the notification of the public meeting, a transcript of the public meeting, the document summarizing responses to public comments, and the siting analysis as part of the initial notification of construction.



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- (c) The owner or operator of an affected facility for which construction is commenced after September 20, 1994 shall prepare a siting analysis in accordance with 40 CFR part 51, Subpart I, or part 52, as applicable, and shall submit the siting analysis as part of the initial notification of construction. Affected facilities subject to paragraphs (a) and (b) of this section are not subject to this paragraph.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 71 FR 27337, May 10, 2006]

**§ 60.58b Compliance and performance testing.**

- (a) The provisions for startup, shutdown, and malfunction are provided in paragraphs (a)(1) and (a)(2) of this section.
- (1) Except as provided by §60.56b, the standards under this subpart apply at all times except during periods of startup, shutdown, and malfunction. Duration of startup, shutdown, or malfunction periods are limited to 3 hours per occurrence, except as provided in paragraph (a)(1)(iii) of this section. During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).
- (i) The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warmup period when the affected facility is combusting fossil fuel or other nonmunicipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
- (ii) Continuous burning is the continuous, semicontinuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.
- (iii) For the purpose of compliance with the carbon monoxide emission limits in §60.53b(a), if a loss of boiler water level control ( e.g., boiler waterwall tube failure) or a loss of combustion air control ( e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. During such periods of malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of §60.59b(d)(7).
- (2) The opacity limits for air curtain incinerators specified in §60.56b apply at all times as specified under §60.56b except during periods of malfunction. Duration of malfunction periods are limited to 3 hours per occurrence.
- (b) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions, or particulate matter (if the owner or operator elects to continuously monitor emissions under paragraph (n) of this section) are monitored and record the output of the system and shall comply with the test procedures and test methods specified in paragraphs (b)(1) through (b)(8) of this section.
- (1) The span value of the oxygen (or 20 percent carbon dioxide) monitor shall be 25 percent oxygen (or 20 percent carbon dioxide).
- (2) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
- (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part.
- (4) The monitor shall conform to Performance Specification 3 in appendix B of this part except for section 2.3 (relative accuracy requirement).
- (5) The quality assurance procedures of appendix F of this part except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.

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- (6) If carbon dioxide is selected for use in diluent corrections, the relationship between oxygen and carbon dioxide levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs (b)(6)(i) through (b)(6)(iv) of this section. This relationship may be reestablished during performance compliance tests.
    - (i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, 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.
  - (7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (b)(6) of this section shall be submitted to EPA as part of the initial performance test report and, if applicable, as part of the annual test report if the relationship is reestablished during the annual performance test.
  - (8) During a loss of boiler water level control or loss of combustion air control malfunction period as specified in paragraph (a)(1)(iii) of this section, a diluent cap of 14 percent for oxygen or 5 percent for carbon dioxide may be used in the emissions calculations for sulfur dioxide and nitrogen oxides.
- (c) Except as provided in paragraph (c)(10) of this section, the procedures and test methods specified in paragraphs (c)(1) through (c)(11) of this section shall be used to determine compliance with the emission limits for particulate matter and opacity under §60.52b(a)(1) and (a)(2).
- (1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.
  - (2) The EPA Reference Method 3, 3A or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for gas analysis.
  - (3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than 160 °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.
  - (4) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (5) As specified under §60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
  - (6) In accordance with paragraphs (c)(7) and (c)(11) of this section, EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under §60.11(e) of subpart A of this part.
  - (7) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under §60.8 of subpart A of this part.
  - (8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (c)(8)(i) through (c)(8)(iv) of this section.
    - (i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.

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- (ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of this part.
  - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under §60.8 of subpart A of this part.
- (9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under §60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for particulate matter on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
- (10) In place of particulate matter testing with EPA Reference Method 5, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring particulate matter emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor particulate matter emissions instead of conducting performance testing using EPA Method 5 shall install, calibrate, maintain, and operate a continuous emission monitoring system and shall comply with the requirements specified in paragraphs (c)(10)(i) through (c)(10)(xiv) of this section. The owner or operator who elects to continuously monitor particulate matter emissions instead of conducting performance testing using EPA Method 5 is not required to complete performance testing for particulate matter as specified in paragraph (c)(9) of this section and is not required to continuously monitor opacity as specified in paragraph (c)(8) of this section.
- (i) Notify the Administrator one month before starting use of the system.
  - (ii) Notify the Administrator one month before stopping use of the system.
  - (iii) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 5 performance tests, whichever is later.
  - (v) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (vi) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions as required under §60.8 of subpart A of this part. Compliance with the particulate matter emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (c)(10) of this section to measure particulate matter and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 12.4.1.
  - (vii) Compliance with the particulate matter emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
  - (viii) After April 28, 2008, at a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (c)(10)(viii)(A) and (c)(10)(viii)(B) for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.

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- (A) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
- (B) Each particulate matter 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (ix) The 1-hour arithmetic averages required under paragraph (c)(10)(vii) of this section shall be expressed in milligrams per dry standard cubic meter corrected to 7 percent oxygen (dry basis) and shall be used to calculate the 24-hour daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
- (x) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (c)(10)(viii) of this section are not met.
- (xi) The continuous emission monitoring system shall be operated according to Performance Specification 11 in appendix B of this part.
- (xii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 11 in appendix B of this part, particulate matter and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (c)(10)(xii)(A) and (c)(10)(xii)(B) of this section.
  - (A) For particulate matter, EPA Reference Method 5 shall be used.
  - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
- (xiii) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part.
- (xiv) When particulate matter emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.
- (11) Following the date that the initial performance test for opacity is completed or is required to be completed under §60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period) using the test method specified in paragraph (c)(6) of this section.
- (d) The procedures and test methods specified in paragraphs (d)(1) and (d)(2) of this section shall be used to determine compliance with the emission limits for cadmium, lead, and mercury under §60.52b(a).
  - (1) The procedures and test methods specified in paragraphs (d)(1)(i) through (d)(1)(ix) of this section shall be used to determine compliance with the emission limits for cadmium and lead under §60.52b(a) (3) and (4).
    - (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
    - (ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.
    - (iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.
    - (iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (d)(1)(iii) of this section.

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- (v) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.
- (vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
- (viii)–(ix) [Reserved]
- (2) The procedures and test methods specified in paragraphs (d)(2)(i) through (d)(2)(xi) of this section shall be used to determine compliance with the mercury emission limit under §60.52b(a)(5).
  - (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC–19–10–1981—Part 10, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 or as an alternative ASTM D6784–02 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 as an alternative ASTM D6784–02 for mercury shall be 1.7 cubic meters.
  - (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 or as an alternative ASTM D6784–02 test run for mercury required under paragraph (d)(2)(iii) of this section.
  - (v) The percent reduction in the potential mercury emissions (%PHg) is computed using equation 1:

$$\left( \%P_{Hg} \right) = \left( \frac{E_i - E_o}{E_i} \right) \times 100 \quad (1)$$

where:

%P<sub>Hg</sub> = percent reduction of the potential mercury emissions achieved.

E<sub>i</sub> = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

- (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
- (vii) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.

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- (viii) The owner or operator of an affected facility shall conduct an initial performance test for mercury emissions as required under §60.8 of subpart A of this part.
  - (ix) Following the date that the initial performance test for mercury is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for mercury emissions on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months from the previous performance test; and must complete five performance tests in each 5-year calendar period).
  - (x) [Reserved]
  - (xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in paragraph (m) of this section for measuring and calculating carbon usage.
- (3) In place of cadmium and lead testing with EPA Reference Method 29 as an alternative ASTM D6784–02, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring cadmium and lead emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section.
  - (4) In place of mercury testing with EPA Reference Method 29 or as an alternative ASTM D6784–02, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system or a continuous automated sampling system for monitoring mercury emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section, or paragraphs (p) and (q) of this section, as appropriate. The owner or operator who elects to continuously monitor mercury in place of mercury testing with EPA Reference Method 29 or as an alternative ASTM D6784–02 is not required to complete performance testing for mercury as specified in paragraph (d)(2)(ix) of this section.
- (e) The procedures and test methods specified in paragraphs (e)(1) through (e)(14) of this section shall be used for determining compliance with the sulfur dioxide emission limit under §60.52b(b)(1).
    - (1) The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average sulfur dioxide emission concentration.
    - (2) The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average percent reduction in the potential sulfur dioxide emission concentration.
    - (3) The owner or operator of an affected facility may request that compliance with the sulfur dioxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
    - (4) The owner or operator of an affected facility shall conduct an initial performance test for sulfur dioxide emissions as required under §60.8 of subpart A of this part. Compliance with the sulfur dioxide emission limit (concentration or percent reduction) shall be determined by using the continuous emission monitoring system specified in paragraph (e)(5) of this section to measure sulfur dioxide and calculating a 24-hour daily geometric average emission concentration or a 24-hour daily geometric average percent reduction using EPA Reference Method 19, sections 4.3 and 5.4, as applicable.
    - (5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
    - (6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under §60.8 of subpart A of this part, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous

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emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.

- (7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (e)(7)(i) and (e)(7)(ii) for 90 percent of the operating hours per calendar quarter and 95 percent of the operating days per calendar year that the affected facility is combusting municipal solid waste.
  - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (8) The 1-hour arithmetic averages required under paragraph (e)(6) of this section shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
- (9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (e)(7) of this section are not met.
- (10) The procedures under §60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
- (11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under §60.8 of subpart A of this part.
- (12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in appendix B of this part. For sources that have actual inlet emissions less than 100 parts per million dry volume, the relative accuracy criterion for inlet sulfur dioxide continuous emission monitoring systems should be no greater than 20 percent of the mean value of the reference method test data in terms of the units of the emission standard, or 5 parts per million dry volume absolute value of the mean difference between the reference method and the continuous emission monitoring systems, whichever is greater.
  - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in appendix B of this part, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (e)(12)(i)(A) and (e)(12)(i)(B) of this section.
    - (A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C, or as an alternative ASME PTC-19-10-1981—Part 10, shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used.
  - (ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
- (13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.
- (14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and/or zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid

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emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

- (f) The procedures and test methods specified in paragraphs (f)(1) through (f)(8) of this section shall be used for determining compliance with the hydrogen chloride emission limit under §60.52b(b)(2).
  - (1) The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the hydrogen chloride emission concentration. The minimum sampling time shall be 1 hour.
  - (2) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each test run for hydrogen chloride required by paragraph (f)(1) of this section.
  - (3) The percent reduction in potential hydrogen chloride emissions (% P<sub>HCl</sub>) is computed using equation 2:

$$(\% P_{HCl}) = \left( \frac{E_i - E_o}{E_i} \right) \times 100 \quad (2)$$

where:

%P<sub>HCl</sub> = percent reduction of the potential hydrogen chloride emissions achieved.

E<sub>i</sub> = potential hydrogen chloride emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

E<sub>o</sub> = controlled hydrogen chloride emission concentration measured at the control device outlet, corrected to 7 percent oxygen (dry basis).

- (4) The owner or operator of an affected facility may request that compliance with the hydrogen chloride emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (5) As specified under §60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the hydrogen chloride emission concentrations or percent reductions from the three test runs is used to determine compliance.
- (6) The owner or operator of an affected facility shall conduct an initial performance test for hydrogen chloride as required under §60.8 of subpart A of this part.
- (7) Following the date that the initial performance test for hydrogen chloride is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct a performance test for hydrogen chloride emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (8) In place of hydrogen chloride testing with EPA Reference Method 26 or 26A, an owner or operator may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring hydrogen chloride emissions discharged to the atmosphere and record the output of the system according to the provisions of paragraphs (n) and (o) of this section.
- (g) The procedures and test methods specified in paragraphs (g)(1) through (g)(9) of this section shall be used to determine compliance with the limits for dioxin/furan emissions under §60.52b(c).
  - (1) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (2) The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used for flue gas analysis.



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- (3) The EPA Reference Method 23 shall be used for determining the dioxin/furan emission concentration.
  - (i) The minimum sample time shall be 4 hours per test run.
  - (ii) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 23 test run for dioxins/furans.
- (4) The owner or operator of an affected facility shall conduct an initial performance test for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, as required under §60.8 of subpart A of this part.
- (5) Following the date that the initial performance test for dioxins/furans is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of an affected facility shall conduct performance tests for dioxin/furan emissions in accordance with paragraph (g)(3) of this section, according to one of the schedules specified in paragraphs (g)(5)(i) through (g)(5)(iii) of this section.
  - (i) For affected facilities, performance tests shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 calendar months following the previous performance test; and must complete five performance tests in each 5-year calendar period).
  - (ii) For the purpose of evaluating system performance to establish new operating parameter levels, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions, the owner or operator of an affected facility that qualifies for the performance testing schedule specified in paragraph (g)(5)(iii) of this section, may test one unit for dioxin/furan and apply the dioxin/furan operating parameters to similarly designed and equipped units on site by meeting the requirements specified in paragraphs (g)(5)(ii)(A) through (g)(5)(ii)(D) of this section.
    - (A) Follow the testing schedule established in paragraph (g)(5)(iii) of this section. For example, each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence ( e.g. , unit 1, unit 2, unit 3, as applicable).
    - (B) Upon meeting the requirements in paragraph (g)(5)(iii) of this section for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels for dioxin/furan as established in paragraph (m) of this section to similarly designed and equipped units on site.
    - (C) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph (g)(5)(iii) of this section, the dioxin/furan and mercury emissions of the subsequent unit shall not exceed the dioxin/furan and mercury emissions measured in the most recent test of that unit prior to the revised operating parameter levels.
    - (D) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section and apply the carbon injection system operating parameters to similarly designed and equipped units on site shall follow the procedures specified in §60.59b(g)(4) for reporting.
  - (iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted on a calendar year basis (no less than 9 calendar months and no more than 15 months following the previous performance test; and must complete five performance tests in each 5-year calendar period) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence ( e.g. , unit 1, unit 2, unit 3, as applicable). If

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each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per calendar year. If any annual performance test indicates either a dioxin/furan emission level greater than 7 nanograms per dry standard cubic meter (total mass), performance tests shall thereafter be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 7 nanograms per dry standard cubic meter (total mass).

- (6) The owner or operator of an affected facility that selects to follow the performance testing schedule specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in §60.59b(g)(4) for reporting the selection of this schedule.
  - (7) The owner or operator of an affected facility where activated carbon is used shall follow the procedures specified in paragraph (m) of this section for measuring and calculating the carbon usage rate.
  - (8) The owner or operator of an affected facility may request that compliance with the dioxin/furan emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (9) As specified under §60.8 of subpart A of this part, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.
  - (10) In place of dioxin/furan sampling and testing with EPA Reference Method 23, an owner or operator may elect to sample dioxin/furan by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring dioxin/furan emissions discharged to the atmosphere, recording the output of the system, and analyzing the sample using EPA Method 23. This option to use a continuous automated sampling system takes effect on the date a final performance specification applicable to dioxin/furan from monitors is published in the Federal Register or the date of approval of a site-specific monitoring plan. The owner or operator of an affected facility who elects to continuously sample dioxin/furan emissions instead of sampling and testing using EPA Method 23 shall install, calibrate, maintain, and operate a continuous automated sampling system and shall comply with the requirements specified in paragraphs (p) and (q) of this section.
- (h) The procedures and test methods specified in paragraphs (h)(1) through (h)(12) of this section shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under §60.52b(d).
- (1) The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic average nitrogen oxides emission concentration.
  - (2) The owner or operator of an affected facility may request that compliance with the nitrogen oxides emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (3) The owner or operator of an affected facility subject to the nitrogen oxides limit under §60.52b(d) shall conduct an initial performance test for nitrogen oxides as required under §60.8 of subpart A of this part. Compliance with the nitrogen oxides emission limit shall be determined by using the continuous emission monitoring system specified in paragraph (h)(4) of this section for measuring nitrogen oxides and calculating a 24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.
  - (4) The owner or operator of an affected facility subject to the nitrogen oxides emission limit under §60.52b(d) shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring nitrogen oxides discharged to the atmosphere, and record the output of the system.

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- (5) Following the date that the initial performance test for nitrogen oxides is completed or is required to be completed under §60.8 of subpart A of this part, compliance with the emission limit for nitrogen oxides required under §60.52b(d) shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using continuous emission monitoring system outlet data.
  - (6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section for 90 percent of the operating hours per calendar quarter and for 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
    - (i) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.
    - (ii) Each nitrogen oxides 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
  - (7) The 1-hour arithmetic averages required by paragraph (h)(5) of this section shall be expressed in parts per million by volume (dry basis) and used to calculate the 24-hour daily arithmetic average concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.
  - (8) All valid continuous emission monitoring system data must be used in calculating emission averages even if the minimum continuous emission monitoring system data requirements of paragraph (h)(6) of this section are not met.
  - (9) The procedures under §60.13 of subpart A of this part shall be followed for installation, evaluation, and operation of the continuous emission monitoring system. The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor unit, as specified under §60.8 of subpart A of this part.
  - (10) The owner or operator of an affected facility shall operate the continuous emission monitoring system according to Performance Specification 2 in appendix B of this part and shall follow the procedures and methods specified in paragraphs (h)(10)(i) and (h)(10)(ii) of this section.
    - (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 of appendix B of this part, nitrogen oxides and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (h)(10)(i)(A) and (h)(10)(i)(B) of this section.
      - (A) For nitrogen oxides, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.
      - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981—Part 10, as applicable, shall be used.
    - (ii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential nitrogen oxide emissions of the municipal waste combustor unit.
  - (11) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of this part.
  - (12) When nitrogen oxides continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 90 percent of the hours per calendar quarter and 95 percent of the hours per calendar year the unit is operated and combusting municipal solid waste.
- (i) The procedures specified in paragraphs (i)(1) through (i)(12) of this section shall be used for determining compliance with the operating requirements under §60.53b.

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- (1) Compliance with the carbon monoxide emission limits in §60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.
- (2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in §60.53b(a) shall be determined using a 24-hour daily arithmetic average.
- (3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs (i)(3)(i) through (i)(3)(iii) of this section.
  - (i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of this part.
  - (ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of this part, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (i)(3)(ii)(A) and (i)(3)(ii)(B) of this section. For affected facilities subject to the 100 parts per million dry volume carbon monoxide standard, the relative accuracy criterion of 5 parts per million dry volume is calculated as the absolute value of the mean difference between the reference method and continuous emission monitoring systems.
    - (A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or ASME PTC-19-10-1981—Part 10 (incorporated by reference, see §60.17 of subpart A of this part), as applicable, shall be used.
  - (iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
- (4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (i)(1) and (i)(2) of this section shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.
- (5) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
- (6) The procedures specified in paragraphs (i)(6)(i) through (i)(6)(v) of this section shall be used to determine compliance with load level requirements under §60.53b(b).
  - (i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages.
  - (ii) The method included in the “American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1—1964 (R1991)” section 4 (incorporated by reference, see §60.17 of subpart A of this part) shall be used for calculating the steam (or feedwater) flow required under paragraph (i)(6)(i) of this section. The recommendations in “American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971),” chapter 4 (incorporated by reference—see §60.17 of subpart A of this part) shall be followed for design,

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construction, installation, calibration, and use of nozzles and orifices except as specified in (i)(6)(iii) of this section.

- (iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.
- (iv) All signal conversion elements associated with steam (or feedwater flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
- (7) To determine compliance with the maximum particulate matter control device temperature requirements under §60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.
- (8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in §60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum municipal waste combustor unit load from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
- (9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in §60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same maximum particulate matter control device temperature from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
- (10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i)(10)(i) and (i)(10)(ii) of this section for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
  - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under paragraph (i) of this section even if the minimum data requirements of paragraph (i)(10) of this section are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by EPA or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.

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- (12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of this part.
- (j) The procedures specified in paragraphs (j)(1) and (j)(2) of this section shall be used for calculating municipal waste combustor unit capacity as defined under §60.51b.
- (1) For municipal waste combustor units capable of combusting municipal solid waste continuously for a 24-hour period, municipal waste combustor unit capacity shall be calculated based on 24 hours of operation at the maximum charging rate. The maximum charging rate shall be determined as specified in paragraphs (j)(1)(i) and (j)(1)(ii) of this section as applicable.
- (i) For combustors that are designed based on heat capacity, the maximum charging rate shall be calculated based on the maximum design heat input capacity of the unit and a heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel.
- (ii) For combustors that are not designed based on heat capacity, the maximum charging rate shall be the maximum design charging rate.
- (2) For batch feed municipal waste combustor units, municipal waste combustor unit capacity shall be calculated as the maximum design amount of municipal solid waste that can be charged per batch multiplied by the maximum number of batches that could be processed in a 24-hour period. The maximum number of batches that could be processed in a 24-hour period is calculated as 24 hours divided by the design number of hours required to process one batch of municipal solid waste, and may include fractional batches (e.g., if one batch requires 16 hours, then 24/16, or 1.5 batches, could be combusted in a 24-hour period). For batch combustors that are designed based on heat capacity, the design heating value of 12,800 kilojoules per kilogram for combustors firing refuse-derived fuel and a heating value of 10,500 kilojoules per kilogram for combustors firing municipal solid waste that is not refuse-derived fuel shall be used in calculating the municipal waste combustor unit capacity in megagrams per day of municipal solid waste.
- (k) The procedures specified in paragraphs (k)(1) through (k)(4) of this section shall be used for determining compliance with the fugitive ash emission limit under §60.55b.
- (1) The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit under §60.55b. The minimum observation time shall be a series of three 1-hour observations. The observation period shall include times when the facility is transferring ash from the municipal waste combustor unit to the area where ash is stored or loaded into containers or trucks.
- (2) The average duration of visible emissions per hour shall be calculated from the three 1-hour observations. The average shall be used to determine compliance with §60.55b.
- (3) The owner or operator of an affected facility shall conduct an initial performance test for fugitive ash emissions as required under §60.8 of subpart A of this part.
- (4) Following the date that the initial performance test for fugitive ash emissions is completed or is required to be completed under §60.8 of subpart A of this part for an affected facility, the owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis (no more than 12 calendar months following the previous performance test).
- (l) The procedures specified in paragraphs (l)(1) through (l)(3) of this section shall be used to determine compliance with the opacity limit for air curtain incinerators under §60.56b.
- (1) The EPA Reference Method 9 shall be used for determining compliance with the opacity limit.
- (2) The owner or operator of the air curtain incinerator shall conduct an initial performance test for opacity as required under §60.8 of subpart A of this part.

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- (3) Following the date that the initial performance test is completed or is required to be completed under §60.8 of subpart A of this part, the owner or operator of the air curtain incinerator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test).
- (m) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit under §60.52b(a)(5), and/or the dioxin/furan emission limits under §60.52(b)(c), or the dioxin/furan emission level specified in paragraph (g)(5)(iii) of this section shall follow the procedures specified in paragraphs (m)(1) through (m)(4) of this section.
  - (1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (m)(1)(i) and (m)(1)(ii) of this section.
    - (i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.
    - (ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions. If a subsequent dioxin/furan performance test is being performed on only one affected facility at the MWC plant, as provided in paragraph (g)(5)(iii) of this section, the owner or operator may elect to apply the same estimated average carbon mass feed rate from the tested facility for all the similarly designed and operated affected facilities at the MWC plant.
  - (2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate ( e.g. , screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (m)(1)(i) and (m)(1)(ii) of this section, except as specified in paragraphs (m)(2)(i) and (m)(2)(ii) of this section.
    - (i) During the annual dioxin/furan or mercury performance test and the 2 weeks preceding the annual dioxin/furan or mercury performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph (m)(2)(ii) of this section are met.
    - (ii) The limit for average mass carbon feed rate may be waived in accordance with permission granted by the Administrator for the purpose of evaluating system performance, testing new technology or control technologies, diagnostic testing, or related activities for the purpose of improving facility performance or advancing the state-of-the-art for controlling facility emissions.
  - (3) The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (m)(3)(i) and (m)(3)(ii) of this section.
    - (i) The weight of carbon delivered to the plant.
    - (ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (m)(1) of this section, and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.
  - (4) Pneumatic injection pressure or other carbon injection system operational indicator shall be used to provide additional verification of proper carbon injection system operation. The operational indicator shall provide an instantaneous visual and/or audible alarm to alert the operator of a potential interruption in the carbon feed that would not normally be indicated by direct monitoring of carbon mass feed rate ( e.g. , continuous weight loss feeder) or monitoring of the carbon system operating parameter(s) that are the indicator(s) of carbon mass feed rate ( e.g. ,

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screw feeder speed). The carbon injection system operational indicator used to provide additional verification of carbon injection system operation, including basis for selecting the indicator and operator response to the indicator alarm, shall be included in section (e)(6) of the site-specific operating manual required under §60.54b(e) of this subpart.

- (n) In place of periodic manual testing of mercury, cadmium, lead, or hydrogen chloride with EPA Reference Method 26, 26A, 29, or as an alternative ASTM D6784–02 (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous emission monitoring system for monitoring emissions discharged to the atmosphere and record the output of the system. The option to use a continuous emission monitoring system for mercury takes effect on the date of approval of the site-specific monitoring plan required in paragraph (n)(13) and (o) of this section. The option to use a continuous emission monitoring system for cadmium, lead, or hydrogen chloride takes effect on the date a final performance specification applicable to cadmium, lead, or hydrogen chloride monitor is published in the Federal Register or the date of approval of the site-specific monitoring plan required in paragraphs (n)(13) and (o) of this section. The owner or operator of an affected facility who elects to continuously monitor emissions instead of conducting manual performance testing shall install, calibrate, maintain, and operate a continuous emission monitoring system and shall comply with the requirements specified in paragraphs (n)(1) through (n)(13) of this section.
- (1) Notify the Administrator one month before starting use of the system.
  - (2) Notify the Administrator one month before stopping use of the system.
  - (3) The monitor shall be installed, evaluated, and operated in accordance with §60.13 of subpart A of this part.
  - (4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by Method 26, 26A, 29, or as an alternative ASTM D6784–02 (as applicable) performance tests, whichever is later.
  - (5) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (6) The owner or operator shall conduct an initial performance test for emissions as required under §60.8 of subpart A of this part. Compliance with the emission limits shall be determined by using the continuous emission monitoring system specified in paragraph (n) of this section to measure emissions and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19, section 12.4.1.
  - (7) Compliance with the emission limits shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data.
  - (8) Beginning on April 28, 2008 for mercury and on the date two years after final performance specifications for cadmium, lead or hydrogen chloride monitors are published in the Federal Register or the date two years after approval of a site-specific monitoring plan, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (n)(8)(i) and (n)(8)(ii) of this section for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
    - (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
    - (ii) Each 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
  - (9) The 1-hour arithmetic averages required under paragraph (n)(7) of this section shall be expressed in micrograms per dry standard cubic meter for mercury, cadmium, lead and parts per million dry volume for hydrogen chloride



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corrected to 7 percent oxygen (dry basis) and shall be used to calculate the 24-hour daily arithmetic (block) average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under §60.13(e)(2) of subpart A of this part.

- (10) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations even if the minimum continuous emission monitoring system data requirements of paragraph (n)(8) of this section are not met.
- (11) The continuous emission monitoring system shall be operated according to the performance specifications in paragraphs (n)(11)(i) through (n)(11)(iii) of this section or the approved site-specific monitoring plan.
  - (i) For mercury, Performance Specification 12A in appendix B of this part.
  - (ii) [Reserved]
  - (iii) [Reserved]
- (12) During each relative accuracy test run of the continuous emission monitoring system required by the performance specifications in paragraph (n)(11) of this section, mercury, cadmium, lead, hydrogen chloride, and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (n)(12)(i) through (n)(12)(iii) of this section.
  - (i) For mercury, cadmium, and lead, EPA Reference Method 29 or as an alternative ASTM D6784-02 shall be used.
  - (ii) For hydrogen chloride, EPA Reference Method 26 or 26A shall be used.
  - (iii) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
- (13) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and implement a site-specific monitoring plan as specified in paragraph (o) of this section. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
- (14) When emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, parametric monitoring data shall be obtained by using other monitoring systems as approved by EPA.
- (o) The owner or operator who elects to install, calibrate, maintain, and operate a continuous emission monitoring system for mercury, cadmium, lead, or hydrogen chloride must develop and submit for approval by EPA, a site-specific mercury, cadmium, lead, or hydrogen chloride monitoring plan that addresses the elements and requirements in paragraphs (o)(1) through (o)(7) of this section.
  - (1) Installation of the continuous emission 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).
  - (2) Performance and equipment specifications for the sample interface, the pollutant concentration analyzer, and the data collection and reduction system.
  - (3) Performance evaluation procedures and acceptance criteria ( *e.g.* , calibrations).
  - (4) Provisions for periods when the continuous emission monitoring system is out of control as described in paragraphs (o)(4)(i) through (o)(4)(iii) of this section.
    - (i) A continuous emission monitoring system is out of control if either of the conditions in paragraphs (o)(4)(i)(A) or (o)(4)(ii)(B) of this section are met.

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- (A) 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; or
  - (B) The continuous emission monitoring system fails a performance test audit ( e.g. , cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.
- (ii) When the continuous emission monitoring system is out of control as defined in paragraph (o)(4)(i) of this section, the owner or operator of the affected source 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 period 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 part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the continuous emission monitoring system is out of control, recorded data shall not be used in data averages and calculations or to meet any data availability requirements in paragraph (n)(8) of this section.
- (iii) The owner or operator of a continuous emission monitoring system that is out of control as defined in paragraph (o)(4) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in §60.59b(g) or (h).
- (5) Ongoing data quality assurance procedures for continuous emission monitoring systems as described in paragraphs (o)(5)(i) and (o)(5)(ii) of this section.
- (i) Develop and implement a continuous emission monitoring system quality control program. As part of the quality control program, the owner or operator shall develop and submit to EPA for approval, upon request, a site-specific performance evaluation test plan for the continuous emission monitoring system performance evaluation required in paragraph (o)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (o)(7)(i)(A) through (o)(7)(i)(F) of this section.
    - (A) Initial and any subsequent calibration of the continuous emission monitoring system;
    - (B) Determination and adjustment of the calibration drift of the continuous emission monitoring system;
    - (C) Preventive maintenance of the continuous emission monitoring system, including spare parts inventory;
    - (D) Data recording, calculations, and reporting;
    - (E) Accuracy audit procedures, including sampling and analysis methods; and
    - (F) Program of corrective action for a malfunctioning continuous emission monitoring system.
  - (ii) The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous emission monitoring system performance, for example, plans for relative accuracy testing using the appropriate reference method in §60.58b(n)(12) of this section. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

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- (6) Conduct a performance evaluation of each continuous emission monitoring system in accordance with the site-specific monitoring plan.
- (7) Operate and maintain the continuous emission monitoring system in continuous operation according to the site-specific monitoring plan.
- (p) In place of periodic manual testing of dioxin/furan or mercury with EPA Reference Method 23, 29, or as an alternative ASTM D6784-02 (as applicable), the owner or operator of an affected facility may elect to install, calibrate, maintain, and operate a continuous automated sampling system for determining emissions discharged to the atmosphere. This option takes effect on the date a final performance specification applicable to such continuous automated sampling systems is published in the Federal Register or the date of approval of a site-specific monitoring plan required in paragraphs (p)(10) and (q) of this section. The owner or operator of an affected facility who elects to use a continuous automated sampling system to determine emissions instead of conducting manual performance testing shall install, calibrate, maintain, and operate the sampling system and conduct analyses in compliance with the requirements specified in paragraphs (p)(1) through (p)(12) of this section.
  - (1) Notify the Administrator one month before starting use of the system.
  - (2) Notify the Administrator one month before stopping use of the system.
  - (3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under §60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of the continuous monitoring system if the owner or operator was previously determining compliance by manual performance testing using Method 23, 29, or as an alternative ASTM D6784-02 (as applicable), whichever is later.
  - (4) The owner or operator may request that compliance with the emission limits be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (b)(6) of this section.
  - (5) The owner or operator shall conduct an initial performance test for emissions as required under §60.8 of subpart A of this part. Compliance with the emission limits shall be determined by using the continuous automated sampling system specified in paragraph (p) of this section to collect integrated samples and analyze emissions for the time period specified in paragraphs (p)(5)(i) and (ii) of this section.
    - (i) For dioxin/furan, the continuous automated sampling system shall collect an integrated sample over each 2-week period. The collected sample shall be analyzed using Method 23.
    - (ii) For mercury, the continuous automated sampling system shall collect an integrated sample over each 24-hour daily period and the sample shall be analyzed according to the applicable final performance specification or the approved site-specific monitoring plan required by paragraph (q) of this section.
  - (6) Compliance with the emission limits shall be determined based on 2-week emission concentrations for dioxin/furan and on the 24-hour daily emission concentrations for mercury using samples collected at the system outlet. The emission concentrations shall be expressed in nanograms per dry standard cubic meter (total mass) for dioxin/furan and micrograms per dry standard cubic meter for mercury, corrected to 7 percent oxygen (dry basis).
  - (7) Beginning on the date two years after the respective final performance specification for continuous automated sampling systems for dioxin/furan or mercury is published in the Federal Register or two years after approval of a site-specific monitoring plan, the continuous automated sampling system must be operated and collect emissions for at least 90 percent of the operating hours per calendar quarter and 95 percent of the operating hours per calendar year that the affected facility is combusting municipal solid waste.
  - (8) All valid data shall be used in calculating emission concentrations.

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- (9) The continuous automated sampling system shall be operated according to the final performance specification in paragraphs (p)(9)(i) or (p)(9)(ii) of this section or the approved site-specific monitoring plan.
- (i) [Reserved]
  - (ii) [Reserved]
- (10) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and implement a site-specific monitoring plan as specified in paragraph (q) of this section. The owner or operator who relies on a performance specification may refer to that document in addressing applicable procedures and criteria.
- (11) When emissions data are not obtained because of continuous automated sampling system breakdowns, repairs, quality assurance checks, or adjustments, parametric monitoring data shall be obtained by using other monitoring systems as approved by EPA.
- (q) The owner or operator who elects to install, calibrate, maintain, and operate a continuous automated sampling system for dioxin/furan or mercury must develop and submit for approval by EPA, a site-specific monitoring plan that has sufficient detail to assure the validity of the continuous automated sampling system data and that addresses the elements and requirements in paragraphs (q)(1) through (q)(7) of this section.
- (1) Installation of the continuous automated sampling 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).
  - (2) Performance and equipment specifications for the sample interface, the pollutant concentration analytical method, and the data collection system.
  - (3) Performance evaluation procedures and acceptance criteria.
  - (4) Provisions for periods when the continuous automated sampling system is malfunctioning or is out of control as described in paragraphs (q)(4)(i) through (q)(4)(iii) of this section.
    - (i) The site-specific monitoring plan shall identify criteria for determining that the continuous automated sampling system is out of control. This shall include periods when the sampling system is not collecting a representative sample or is malfunctioning, or when the analytical method does not meet site-specific quality criteria established in paragraph (q)(5) of this section.
    - (ii) When the continuous automated sampling system is out of control as defined in paragraph (q)(4)(i) of this section, the owner or operator 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 within the applicable limits. The out-of-control period includes all hours that the sampling system was not collecting a representative sample or was malfunctioning, or hours represented by a sample for which the analysis did not meet the relevant quality criteria. Emissions data obtained during an out-of-control period shall not be used in determining compliance with the emission limits or to meet any data availability requirements in paragraph (p)(8) of this section.
    - (iii) The owner or operator of a continuous automated sampling system that is out of control as defined in paragraph (q)(4) of this section shall submit all information concerning out-of-control periods, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual compliance reports required in §60.59b(g) or (h).
  - (5) Ongoing data quality assurance procedures for continuous automated sampling systems as described in paragraphs (q)(5)(i) and (q)(5)(ii) of this section.
    - (i) Develop and implement a continuous automated sampling system and analysis quality control program. As part of the quality control program, the owner or operator shall develop and submit to EPA for approval, upon

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request, a site-specific performance evaluation test plan for the continuous automated sampling system performance evaluation required in paragraph (q)(5)(ii) of this section. In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the operations described in paragraphs (q)(7)(i)(A) through (q)(7)(i)(F) of this section.

- (A) Correct placement, installation of the continuous automated sampling system such that the system is collecting a representative sample of gas;
  - (B) Initial and subsequent calibration of flow such that the sample collection rate of the continuous automated sampling system is known and verifiable;
  - (C) Procedures to assure representative ( e.g. , proportional or isokinetic) sampling;
  - (D) Preventive maintenance of the continuous automated sampling system, including spare parts inventory and procedures for cleaning equipment, replacing sample collection media, or other servicing at the end of each sample collection period;
  - (E) Data recording and reporting, including an automated indicator and recording device to show when the continuous automated monitoring system is operating and collecting data and when it is not collecting data;
  - (F) Accuracy audit procedures for analytical methods; and
  - (G) Program of corrective action for a malfunctioning continuous automated sampling system.
- (ii) The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data quality objectives, and both an internal and external quality assurance program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data. The internal quality assurance program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of continuous automated sampling system performance, for example, plans for relative accuracy testing using the appropriate reference method in 60.58b(p)(3), and an assessment of quality of analysis results. The external quality assurance program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.
- (6) Conduct a performance evaluation of each continuous automated sampling system in accordance with the site-specific monitoring plan.
  - (7) Operate and maintain the continuous automated sampling system in continuous operation according to the site-specific monitoring plan.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45126, Aug. 25, 1997; 65 FR 61753, Oct. 17, 2000; 66 FR 57827, Nov. 16, 2001; 71 FR 27337, May 10, 2006]

**§ 60.59b Reporting and recordkeeping requirements.**

- (a) The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit, on or before the date the application for a construction permit is submitted under 40 CFR part 51, subpart I, or part 52, as applicable, the items specified in paragraphs (a)(1) through (a)(4) of this section.
  - (1) The preliminary and final draft materials separation plans required by §60.57b(a)(1) and (a)(5).
  - (2) A copy of the notification of the public meeting required by §60.57b(a)(1)(ii).
  - (3) A transcript of the public meeting required by §60.57b(a)(2).
  - (4) A copy of the document summarizing responses to public comments required by §60.57b(a)(3).

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- (b) The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit a notification of construction, which includes the information specified in paragraphs (b)(1) through (b)(5) of this section.
- (1) Intent to construct.
  - (2) Planned initial startup date.
  - (3) The types of fuels that the owner or operator plans to combust in the affected facility.
  - (4) The municipal waste combustor unit capacity, and supporting capacity calculations prepared in accordance with §60.58b(j).
  - (5) Documents associated with the siting requirements under §60.57b (a) and (b), as specified in paragraphs (b)(5)(i) through (b)(5)(v) of this section.
    - (i) The siting analysis required by §60.57b (b)(1) and (b)(2).
    - (ii) The final materials separation plan for the affected facility required by §60.57b(a)(10).
    - (iii) A copy of the notification of the public meeting required by §60.57b(b)(3)(ii).
    - (iv) A transcript of the public meeting required by §60.57b(b)(4).
    - (v) A copy of the document summarizing responses to public comments required by §60.57b (a)(9) and (b)(5).
- (c) The owner or operator of an air curtain incinerator subject to the opacity limit under §60.56b shall provide a notification of construction that includes the information specified in paragraphs (b)(1) through (b)(4) of this section.
- (d) The owner or operator of an affected facility subject to the standards under §§60.52b, 60.53b, 60.54b, 60.55b, and 60.57b shall maintain records of the information specified in paragraphs (d)(1) through (d)(15) of this section, as applicable, for each affected facility for a period of at least 5 years.
- (1) The calendar date of each record.
  - (2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (d)(2)(i) and (d)(2)(ii) of this section.
    - (i) The measurements specified in paragraphs (d)(2)(i)(A) through (d)(2)(i)(F) of this section shall be recorded and be available for submittal to the Administrator or review on site by an EPA or State inspector.
      - (A) All 6-minute average opacity levels as specified under §60.58b(c).
      - (B) All 1-hour average sulfur dioxide emission concentrations as specified under §60.58b(e).
      - (C) All 1-hour average nitrogen oxides emission concentrations as specified under §60.58b(h).
      - (D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under §60.58b(i).
      - (E) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 1-hour average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under §60.58b(n).
    - (ii) The average concentrations and percent reductions, as applicable, specified in paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(F) of this section shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an EPA or State inspector.
      - (A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under §60.58b(e).

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- (B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under §60.58b(h).
  - (C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under §60.58b(i).
  - (D) All 4-hour block arithmetic average municipal waste combustor unit load levels and particulate matter control device inlet temperatures as specified under §60.58b(i).
  - (E) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, all 24-hour daily arithmetic average particulate matter, cadmium, lead, mercury, or hydrogen chloride emission concentrations as specified under §60.58b(n).
  - (F) For owners and operators who elect to use a continuous automated sampling system to monitor mercury or dioxin/furan instead of conducting performance testing using EPA manual test methods, all integrated 24-hour mercury concentrations or all integrated 2-week dioxin/furan concentrations as specified under §60.586(p).
- (3) Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(F) of this section, or the opacity levels recorded under paragraph (d)(2)(i)(A) of this section are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- (4) For affected facilities that apply activated carbon for mercury or dioxin/furan control, the records specified in paragraphs (d)(4)(i) through (d)(4)(v) of this section.
- (i) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under §60.58b(m)(1)(i) of this section during the initial mercury performance test and all subsequent annual performance tests, with supporting calculations.
  - (ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under §60.58b(m)(1)(ii) of this section during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
  - (iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under §60.58b(m)(3)(ii) of this section, with supporting calculations.
  - (iv) The total carbon usage for each calendar quarter estimated as specified by paragraph 60.58b(m)(3) of this section, with supporting calculations.
  - (v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
- (5) [Reserved]
- (6) Identification of the calendar dates and times (hours) for which valid hourly data specified in paragraphs (d)(6)(i) through (d)(6)(vi) of this section have not been obtained, or continuous automated sampling systems were not operated as specified in paragraph (d)(6)(vii) of this section, including reasons for not obtaining the data and a description of corrective actions taken.
- (i) Sulfur dioxide emissions data;
  - (ii) Nitrogen oxides emissions data;
  - (iii) Carbon monoxide emissions data;
  - (iv) Municipal waste combustor unit load data;

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- (v) Particulate matter control device temperature data; and
  - (vi) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of performance testing by EPA manual test methods, particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions data.
  - (vii) For owners and operators who elect to use continuous automated sampling systems for dioxins/furans or mercury as allowed under “60.58b(p) and (q), dates and times when the sampling systems were not operating or were not collecting a valid sample.
- (7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data, particulate matter emissions data, cadmium emissions data, lead emissions data, mercury emissions data, hydrogen chloride emissions data, or dioxin/furan emissions data (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) or operational data ( *i.e.* , carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under appendix F of this part, procedure 1.
- (9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (d)(9)(i) and (d)(9)(ii) of this section shall be recorded along with supporting calculations.
- (i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
  - (ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (d)(9)(i) of this section, the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
- (10) An owner or operator who elects to continuously monitor emissions instead of performance testing by EPA manual methods must maintain records specified in paragraphs (10)(i) through (iii) of this section.
- (i) For owners and operators who elect to continuously monitor particulate matter instead of conducting performance testing using EPA manual test methods), as required under appendix F of this part, procedure 2, the results of daily drift tests and quarterly accuracy determinations for particulate matter.
  - (ii) For owners and operators who elect to continuously monitor cadmium, lead, mercury, or hydrogen chloride instead of conducting EPA manual test methods, the results of all quality evaluations, such as daily drift tests and periodic accuracy determinations, specified in the approved site-specific performance evaluation test plan required by §60.58b(o)(5).
  - (iii) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the results of all quality evaluations specified in the approved site-specific performance evaluation test plan required by §60.58b(q)(5).
- (11) For each affected facility subject to the siting provisions under §60.57b, the siting analysis, the final materials separation plan, a record of the location and date of the public meetings, and the documentation of the responses to public comments received at the public meetings.
- (12) The records specified in paragraphs (d)(12)(i) through (d)(12)(iv) of this section.



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- (i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by §60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
- (ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by §60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.
- (iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor operator training course or a State-approved equivalent course as required by §60.54b(d) including documentation of training completion.
- (iv) Records of when a certified operator is temporarily off site. Include two main items:
  - (A) If the certified chief facility operator and certified shift supervisor are off site for more than 12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates that the certified chief facility operator and certified shift supervisor were off site.
  - (B) When all certified chief facility operators and certified shift supervisors are off site for more than 2 weeks and no other certified operator is on site, keep records of four items:
    - ( 1 ) Time of day that all certified persons are off site.
    - ( 2 ) The conditions that cause those people to be off site.
    - ( 3 ) The corrective actions taken by the owner or operator of the affected facility to ensure a certified chief facility operator or certified shift supervisor is on site as soon as practicable.
    - ( 4 ) Copies of the written reports submitted every 4 weeks that summarize the actions taken by the owner or operator of the affected facility to ensure that a certified chief facility operator or certified shift supervisor will be on site as soon as practicable.
- (13) Records showing the names of persons who have completed a review of the operating manual as required by §60.54b(f) including the date of the initial review and subsequent annual reviews.
- (14) For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for mercury emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken. For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph (d)(4)(iii) of this section were less than either of the hourly carbon feed rates estimated during performance tests for dioxin/furan emissions and recorded under paragraphs (d)(4)(i) and (d)(4)(ii) of this section, respectively, with reasons for such feed rates and a description of corrective actions taken.
- (15) For affected facilities that apply activated carbon for mercury or dioxin/furan control, identification of the calendar dates when the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph (d)(4)(v) of this section are below the level(s) estimated during the performance tests as specified in §60.58b(m)(1)(i) and §60.58b(m)(1)(ii) of this section, with reasons for such occurrences and a description of corrective actions taken.
- (e) The owner or operator of an air curtain incinerator subject to the opacity limit under §60.56b shall maintain records of results of the initial opacity performance test and subsequent performance tests required by §60.58b(l) for a period of at least 5 years.

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- (f) The owner or operator of an affected facility shall submit the information specified in paragraphs (f)(1) through (f)(6) of this section in the initial performance test report.
- (1) The initial performance test data as recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) of this section for the initial performance test for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature.
  - (2) The test report documenting the initial performance test recorded under paragraph (d)(9) of this section for particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emissions.
  - (3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.
  - (4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under paragraph (d)(9) of this section.
  - (5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(i) of this section.
  - (6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under paragraph (d)(4)(ii) of this section.
- (g) Following the first year of municipal waste combustor operation, the owner or operator of an affected facility shall submit an annual report that includes the information specified in paragraphs (g)(1) through (g)(5) of this section, as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).
- (1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (g)(1)(i) through (g)(1)(v) of this section.
    - (i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under paragraph (d)(9) of this section.
    - (ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan emissions instead of conducting performance testing using EPA manual test methods), municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(E) of this section.
    - (iii) List the highest opacity level measured, based on the data recorded under paragraph (d)(2)(i)(A) of this section.
    - (iv) Periods when valid data were not obtained as described in paragraphs (g)(1)(iv)(A) through (g)(1)(iv)(C) of this section.
      - (A) The total number of hours per calendar quarter and hours per calendar year that valid data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, or particulate matter control device temperature data were not obtained based on the data recorded under paragraph (d)(6) of this section.
      - (B) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, and hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours per calendar quarter and hours per calendar year that valid data for particulate matter, cadmium, lead, mercury, and hydrogen chloride were not obtained based on the data

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recorded under paragraph (d)(6) of this section. For each continuously monitored pollutant or parameter, the hours of valid emissions data per calendar quarter and per calendar year expressed as a percent of the hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.

- (C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours per calendar quarter and hours per calendar year that the sampling systems were not operating or were not collecting a valid sample based on the data recorded under paragraph (d)(6)(vii) of this section. Also, the number of hours during which the continuous automated sampling system was operating and collecting a valid sample as a percent of hours per calendar quarter or year that the affected facility was operating and combusting municipal solid waste.
- (v) Periods when valid data were excluded from the calculation of average emission concentrations or parameters as described in paragraphs (g)(1)(v)(A) through (g)(1)(v)(C) of this section.
  - (A) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
  - (B) For owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride emissions instead of conducting performance testing using EPA manual test methods, the total number of hours that data for particulate matter, cadmium, lead, mercury, or hydrogen chloride were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
  - (C) For owners and operators who elect to use continuous automated sampling systems for dioxin/furan or mercury, the total number of hours that data for mercury and dioxin/furan were excluded from the calculation of average emission concentrations or parameters based on the data recorded under paragraph (d)(7) of this section.
- (2) The summary of data reported under paragraph (g)(1) of this section shall also provide the types of data specified in paragraphs (g)(1)(i) through (g)(1)(vi) of this section for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.
- (3) The summary of data including the information specified in paragraphs (g)(1) and (g)(2) of this section shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.
- (4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in §60.58b(g)(5)(iii) of this section during the following calendar year and notification of intent to apply the average carbon mass feed rate and associated carbon injection system operating parameter levels as established in §60.58b(m) to similarly designed and equipped units on site.
- (5) Documentation of periods when all certified chief facility operators and certified shift supervisors are off site for more than 12 hours.
- (h) The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs (h)(1) through (h)(5) of this section for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (h)(6) of this section.
  - (1) The semiannual report shall include information recorded under paragraph (d)(3) of this section for sulfur dioxide, nitrogen oxides, carbon monoxide, particulate matter, cadmium, lead, mercury, hydrogen chloride, dioxin/furan (for owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen

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chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods) municipal waste combustor unit load level, particulate matter control device inlet temperature, and opacity.

- (2) For each date recorded as required by paragraph (d)(3) of this section and reported as required by paragraph (h)(1) of this section, the semiannual report shall include the sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, particulate matter control device inlet temperature, or opacity data, as applicable, recorded under paragraphs (d)(2)(ii)(A) through (d)(2)(ii)(D) and (d)(2)(i)(A) of this section, as applicable.
- (3) If the test reports recorded under paragraph (d)(9) of this section document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.
- (4) The semiannual report shall include the information recorded under paragraph (d)(15) of this section for the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.
- (5) For each operating date reported as required by paragraph (h)(4) of this section, the semiannual report shall include the carbon feed rate data recorded under paragraph (d)(4)(iii) of this section.
- (6) Semiannual reports required by paragraph (h) of this section shall be submitted according to the schedule specified in paragraphs (h)(6)(i) and (h)(6)(ii) of this section.
  - (i) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the first calendar half, then the report shall be submitted by August 1 following the first calendar half.
  - (ii) If the data reported in accordance with paragraphs (h)(1) through (h)(5) of this section were collected during the second calendar half, then the report shall be submitted by February 1 following the second calendar half.
- (i) The owner or operator of an air curtain incinerator subject to the opacity limit under §60.56b shall submit the results of the initial opacity performance test and all subsequent annual performance tests recorded under paragraph (e) of this section. Annual performance tests shall be submitted by February 1 of the year following the year of the performance test.
- (j) All reports specified under paragraphs (a), (b), (c), (f), (g), (h), and (i) of this section shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.
- (k) All records specified under paragraphs (d) and (e) of this section shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.
- (l) If the owner or operator of an affected facility would prefer a different annual or semiannual date for submitting the periodic reports required by paragraphs (g), (h) and (i) of this section, then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in §60.19(c) of subpart A of this part.
- (m) Owners and operators who elect to continuously monitor particulate matter, cadmium, lead, mercury, or hydrogen chloride, or who elect to use continuous automated sampling systems for dioxin/furan or mercury emissions, instead of conducting performance testing using EPA manual test methods must notify the Administrator one month prior to starting or stopping use of the particulate matter, cadmium, lead, mercury, hydrogen chloride, and dioxin/furan continuous emission monitoring systems or continuous automated sampling systems.
- (n) *Additional recordkeeping and reporting requirements for affected facilities with continuous cadmium, lead, mercury, or hydrogen chloride monitoring systems.* In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous emission monitoring system for cadmium, lead, mercury, or hydrogen chloride as specified in §60.58b(n), shall maintain the

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records in paragraphs (n)(1) through (n)(10) of this section and report the information in paragraphs (n)(11) through (n)(12) of this section, relevant to the continuous emission monitoring system:

- (1) All required continuous emission monitoring measurements (including monitoring data recorded during unavoidable continuous emission monitoring system breakdowns and out-of-control periods);
  - (2) The date and time identifying each period during which the continuous emission monitoring system was inoperative except for zero (low-level) and high-level checks;
  - (3) The date and time identifying each period during which the continuous emission monitoring system was out of control, as defined in §60.58b(o)(4);
  - (4) The specific identification ( *i.e.* , the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
  - (5) The specific identification ( *i.e.* , the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
  - (6) The nature and cause of any malfunction (if known);
  - (7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
  - (8) The nature of the repairs or adjustments to the continuous emission monitoring system that was inoperative or out of control;
  - (9) All procedures that are part of a quality control program developed and implemented for the continuous emission monitoring system under §60.58b(o);
  - (10) When more than one continuous emission monitoring system is used to measure the emissions from one affected source ( *e.g.* , multiple breechings, multiple outlets), the owner or operator shall report the results as required for each continuous emission monitoring system.
  - (11) Submit to EPA for approval, the site-specific monitoring plan required by §60.58b(n)(13) and §60.58b(o), including the site-specific performance evaluation test plan for the continuous emission monitoring system required by §60.58b(o)(5). The owner or operator shall maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, the owner or operator shall keep previous ( *i.e.* , superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.
  - (12) Submit information concerning all out-of-control periods for each continuous emission monitoring system, including start and end dates and hours and descriptions of corrective actions taken, in the annual or semiannual reports required in paragraphs (g) or (h) of this section.
- (o) *Additional recordkeeping and reporting requirements for affected facilities with continuous automated sampling systems for dioxin/furan or mercury monitoring.* In addition to complying with the requirements specified in paragraphs (a) through (m) of this section, the owner or operator of an affected source who elects to install a continuous automated sampling system for dioxin/furan or mercury, as specified in §60.58b(p), shall maintain the records in paragraphs (o)(1) through (o)(10) of this section and report the information in (o)(11) and (o)(12) of this section, relevant to the continuous automated sampling system:
- (1) All required 24-hour integrated mercury concentration or 2-week integrated dioxin/furan concentration data (including any data obtained during unavoidable system breakdowns and out-of-control periods);

APPENDIX 40 CFR 60 SUBPART Eb

STANDARDS OF PERFORMANCE FOR LARGE MUNICIPAL WASTE COMBUSTORS FOR WHICH CONSTRUCTION IS COMMENCED AFTER SEPTEMBER 20, 1994 OR FOR WHICH MODIFICATION OR RECONSTRUCTION IS COMMENCED AFTER JUNE 19, 1996  
(version dated 04/21/2008)

- (2) The date and time identifying each period during which the continuous automated sampling system was inoperative;
- (3) The date and time identifying each period during which the continuous automated sampling system was out of control, as defined in §60.58b(q)(4);
- (4) The specific identification (*i.e.*, the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during startups, shutdowns, and malfunctions of the affected source;
- (5) The specific identification (*i.e.*, the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the standard, that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;
- (6) The nature and cause of any malfunction (if known);
- (7) The corrective action taken to correct any malfunction or preventive measures adopted to prevent further malfunctions;
- (8) The nature of the repairs or adjustments to the continuous automated sampling system that was inoperative or out of control;
- (9) All procedures that are part of a quality control program developed and implemented for the continuous automated sampling system under §60.58b(q);
- (10) When more than one continuous automated sampling system is used to measure the emissions from one affected source (*e.g.*, multiple breechings, multiple outlets), the owner or operator shall report the results as required for each system.
- (11) Submit to EPA for approval, the site-specific monitoring plan required by §60.58b(p)(11) and §60.58b(q) including the site-specific performance evaluation test plan for the continuous emission monitoring system required by §60.58(b)(q)(5). The owner or operator shall maintain copies of the site-specific monitoring plan on record for the life of the affected source to be made available for inspection, upon request, by the Administrator. If the site-specific monitoring plan is revised and approved, the owner or operator shall keep previous (*i.e.*, superseded) versions of the plan on record to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.
- (12) Submit information concerning all out-of-control periods for each continuous automated sampling system, including start and end dates and hours and descriptions of corrective actions taken in the annual or semiannual reports required in paragraphs (g) or (h) of this section.

[60 FR 65419, Dec. 19, 1995, as amended at 62 FR 45121, 45127, Aug. 25, 1997; 71 FR 27345, May 10, 2006]

## Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers (version dated 02/05/97)

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### Abbreviations and Acronyms:

°F: Degrees Fahrenheit  
**BACT:** Best Available Control Technology  
**CFR:** Code of Federal Regulations  
**DEP:** State of Florida, Department of Environmental Protection  
**DARM:** Division of Air Resource Management  
**EPA:** United States Environmental Protection Agency  
**F.A.C.:** Florida Administrative Code  
**F.S.:** Florida Statute  
**ISO:** International Standards Organization  
**LAT:** Latitude  
**LONG:** Longitude  
**MMBtu:** million British thermal units  
**MW:** Megawatt  
**ORIS:** Office of Regulatory Information Systems  
**SOA:** Specific Operating Agreement  
**UTM:** Universal Transverse Mercator

---

### Citations:

*The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers, and ID numbers.*

#### Code of Federal Regulations:

*Example:* [40 CFR 60.334]

Where:	40	reference to	Title 40
	CFR	reference to	Code of Federal Regulations
	60	reference to	Part 60
	60.334	reference to	Regulation 60.334

#### Florida Administrative Code (F.A.C.) Rules:

*Example:* [Rule 62-213, F.A.C.]

Where:	62	reference to	Title 62
	62-213	reference to	Chapter 62-213
	62-213.205	reference to	Rule 62-213.205, F.A.C.

**ISO:** International Standards Organization refers to those conditions at 288 degrees K, 60 percent relative humidity, and 101.3 kilopascals pressure.

**Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers  
(version dated 02/05/97) (continued)**

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**Identification Numbers:**

Facility Identification (ID) Number:

*Example:* Facility ID No.: 1050221

*Where:*

105 = 3-digit number code identifying the facility is located in Polk County  
0221 = 4-digit number assigned by state database.

Permit Numbers:

*Example:* 1050221-002-AV, or  
1050221-001-AC

*Where:*

AC = Air Construction Permit  
AV = Air Operation Permit (Title V Source)  
105 = 3-digit number code identifying the facility is located in Polk County  
0221 = 4-digit number assigned by permit tracking database  
001 or 002 = 3-digit sequential project number assigned by permit tracking database

*Example:* PSD-FL-185  
PA95-01  
AC53-208321

*Where:*

PSD = Prevention of Significant Deterioration Permit  
PA = Power Plant Siting Act Permit  
AC = old Air Construction Permit numbering



## Livingston, Sylvia

---

**From:** Livingston, Sylvia  
**Sent:** Friday, July 10, 2009 1:44 PM  
**To:** 'sampsolj@leegov.com'  
**Cc:** 'Don.Castro@HDRInc.com'; 'Kirk.Dunbar@HDRInc.com'; Halpin, Mike; Satyal, Ajaya; 'Forney.Kathleen@epamail.epa.gov'; 'Oquendo.Ana@epamail.epa.gov'; Friday, Barbara; Gibson, Victoria; Holtom, Jonathan; Sheplak, Scott; Walker, Elizabeth (AIR)  
**Subject:** LEE COUNTY SOLID WASTE RESOURCE REC. FAC.; 0710119-006-AV

Dear Sir/ Madam:

Attached is the official **Notice of Final Permit** for the project referenced below. Click on the link displayed below to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send". **We must receive verification that you are able to access the documents.** Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

*Note: We must receive verification that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).*

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**Attention:** Scott Sheplak

**Owner/Company Name:** LEE COUNTY DEPT. OF SOLID WASTE MGT.  
**Facility Name:** LEE CO. SOLID WASTE RESOURCE REC. FAC.  
**Project Number:** 0710119-006-AV  
**Permit Status:** FINAL  
**Permit Activity:** PERMIT REVISION  
**Facility County:** LEE

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Sylvia Livingston  
Bureau of Air Regulation  
Division of Air Resource Management (DARM)  
850/921-9506  
[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

## Livingston, Sylvia

---

**From:** Sampson, Lindsey [SAMPSOLJ@leegov.com]  
**Sent:** Friday, July 10, 2009 4:30 PM  
**To:** Livingston, Sylvia  
**Cc:** Dunbar, Kirk  
**Subject:** RE: LEE COUNTY SOLID WASTE RESOURCE REC. FAC.; 0710119-006-AV

Sylvia,

Lee County can access the subject documents. Thank you.

Lindsey J. Sampson  
Lee County Solid Waste Division  
[sampsolj@leegov.com](mailto:sampsolj@leegov.com)  
Ph 239-533-8000  
Fax 239-461-5871

---

**From:** Livingston, Sylvia [mailto:Sylvia.Livingston@dep.state.fl.us]  
**Sent:** Friday, July 10, 2009 1:43 PM  
**To:** Sampson, Lindsey  
**Cc:** Don.Castro@HDRInc.com; Kirk.Dunbar@HDRInc.com; Halpin, Mike; Satyal, Ajaya; Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov; Friday, Barbara; Gibson, Victoria; Holtom, Jonathan; Sheplak, Scott; Walker, Elizabeth (AIR)  
**Subject:** LEE COUNTY SOLID WASTE RESOURCE REC. FAC.; 0710119-006-AV

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**Attention:** Scott Sheplak

**Owner/Company Name:** LEE COUNTY DEPT. OF SOLID WASTE MGT.

**Facility Name:** LEE CO. SOLID WASTE RESOURCE REC. FAC.

**Project Number:** 0710119-006-AV

**Permit Status:** FINAL

**Permit Activity:** PERMIT REVISION

**Facility County:** LEE

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Sylvia Livingston

Bureau of Air Regulation

Division of Air Resource Management (DARM)

850/921-9506

[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

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*The Department of Environmental Protection values your feedback as a customer. DEP Secretary Michael W. Sole is committed to continuously assessing and improving the level and quality of services provided to you. Please take a few minutes to comment on the quality of service you received. Simply click on [this link to the DEP Customer Survey](#). Thank you in advance for completing the survey.*

## Livingston, Sylvania

---

**From:** Castro, Don [Don.Castro@hdrinc.com]  
**Sent:** Monday, July 13, 2009 9:26 AM  
**To:** Livingston, Sylvania  
**Subject:** RE: LEE COUNTY SOLID WASTE RESOURCE REC. FAC.; 0710119-006-AV

Verifying receipt and ability to read attachments.

Thanks

*Don Castro, P.E.  
Project Manager*

**HDR | ONE COMPANY | Many Solutions**

5426 Bay Center Drive, Suite 400

Tampa, Florida 33609-3444

p. 813-282-2404

f. 813-282-2430

c. 813-417-6594

---

**From:** Livingston, Sylvania [mailto:Sylvia.Livingston@dep.state.fl.us]  
**Sent:** Friday, July 10, 2009 1:43 PM  
**To:** sampsolj@leegov.com  
**Cc:** Castro, Don; Dunbar, Kirk; Halpin, Mike; Satyal, Ajaya; Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov; Friday, Barbara; Gibson, Victoria; Holtom, Jonathan; Sheplak, Scott; Walker, Elizabeth (AIR)  
**Subject:** LEE COUNTY SOLID WASTE RESOURCE REC. FAC.; 0710119-006-AV

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Sylvia Livingston

Bureau of Air Regulation

Division of Air Resource Management (DARM)

850/921-9506

[sylvia.livingston@dep.state.fl.us](mailto:sylvia.livingston@dep.state.fl.us)

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## Livingston, Sylvania

---

**From:** Satyal, Ajaya  
**Sent:** Wednesday, July 15, 2009 8:27 AM  
**To:** Livingston, Sylvania  
**Subject:** RE: LEE COUNTY SOLID WASTE RESOURCE REC. FAC.; 0710119-006-AV

Sylvania,

Received the final permit. Thanks,

AJ

---

**From:** Livingston, Sylvania  
**Sent:** Friday, July 10, 2009 1:43 PM  
**To:** sampsolj@leegov.com  
**Cc:** Don.Castro@HDRInc.com; Kirk.Dunbar@HDRInc.com; Halpin, Mike; Satyal, Ajaya; Forney.Kathleen@epamail.epa.gov; Oquendo.Ana@epamail.epa.gov; Friday, Barbara; Gibson, Victoria; Holtom, Jonathan; Sheplak, Scott; Walker, Elizabeth (AIR)  
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