Title V Air Operation Permit Renewal Permit No. 0250348-013-AV

APPLICANT

The applicant for this project is the Miami-Dade County Department of Solid Waste. The applicant's responsible official and mailing address are: Renato Pereira, Facility Manager, Covanta Dade Renewable Energy Ltd., Miami-Dade County Resources Recovery Facility, 6990 NW 97th Avenue, Miami, FL 33178.

FACILITY DESCRIPTION

The applicant operates the existing Miami-Dade County Resources Recovery Facility, which is in Miami-Dade County at 6990 NW 97th Avenue, Miami, Florida.

The Miami-Dade County Resources Recovery Facility consists of four municipal waste combustors (MWC) and ancillary equipment. Each unit has a maximum continuous rating of 198,000 pounds per hour (lb/hour) of steam with a range of 584 to 782 tons/day at a heat content of 4,500 to 5,500 British thermal units per pound (Btu/lb) of refuse derived fuel (RDF) required to achieve the rating. The four units combined produce enough steam to generate approximately 77 megawatts (MW) of electricity.

The facility began operation in 1982 and by 1990 had been converted to the present RDF design. Emissions from each unit are controlled by: a spray dryer absorber (SDA) for acid gases such as sulfur dioxide (SO₂) and hydrogen chloride (HCl); a fabric filter (baghouse) for particulate matter (PM); a selective non-catalytic reduction (SNCR) system for nitrogen oxides (NO_x); and an activated carbon injection (ACI) system for mercury (Hg), other metal hazardous air pollutants (HAP) and dioxin/furans (D/F). The facility is equipped with continuous emission monitoring systems (CEMS) for carbon monoxide (CO), SO₂ and NO_x, and a continuous opacity monitoring system (COMS) for visible emissions (VE).

The biomass fuel preparation system processes up to 400,000 tons/year of the organic bulky solid waste into biomass, which is either transported off-site for use in biomass-fired cogeneration units or combusted on-site. Biomass, in the energy production industry, refers to living and recently living biological material which can be used as fuel or for industrial production.

The facility also has an ash building and ash handling system, lime storage silos and activated carbon storage silos. Units 1 and 2 share a common stack, each with its own flue. The same stack/flue configuration is used for Units 3 and 4. Odors are minimized by: keeping the truck access doors closed during non-use; maintaining a negative pressure within the garbage tipping floor building; and, using the collected air from the garbage tipping floor building as combustion air for the MWC.

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

EU No.	Brief Description		
001	RDF Spreader Stoker Combustor & Auxiliary Burners – Unit No.1		
002	RDF Spreader Stoker Combustor & Auxiliary Burners – Unit No. 2		
003	RDF Spreader Stoker Combustor & Auxiliary Burners – Unit No. 3		
004	RDF Spreader Stoker Combustor & Auxiliary Burners – Unit No. 4		
006	MSW to RDF Processing Facility with Baghouses - Unit No. 6		
007	Bulky Waste to Biomass Processing Facility with Baghouses - Unit No. 7		
008	Ash Building and Handling System/Ash Storage Silo with Baghouse - Unit No. 8		
009	Two Lime Storage Silos each with a Baghouse - Unit No. 9		
010	Activated Carbon or Comparable Reactant Storage Silos each with a Baghouse – Unit No. 10		

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

STATEMENT OF BASIS

EU No.	Brief Description
011	Emergency Diesel Engine – Unit No. 11
012	Emergency Diesel Engine – Unit No. 12
013	Three Emergency Diesel Engine-Driven Fire Pumps

APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received on August 10, 2021, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table:

Regulation	EU No(s).		
Federal Rule Citations			
40 CFR 60, Subpart A – NSPS General Provisions	001-004,008,011,012		
40 CFR 60, Subpart Cb – Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994	001-004,008		
40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial- Institutional Steam Generating Units	001-004		
40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition InternalCombustion Engines (CI-ICE)	011,012		
40 CFR 63, Subpart A – NESHAP General Provisions	011,012,013		
40 CFR 63, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines (RICE)	011-013		
State Rule Citations			
Chapter 62-4, F.A.C. – Permits	001-004,008,011-013		
Rule 62-204.800(9)(b), F.A.C. – Emission Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994	001-004,008		
Rule 62-204.800, F.A.C. – Federal Regulations Adopted by Reference	001-004,008,011-013		
Chapter 62-210, F.A.C Stationary Sources - General Requirements	All		
Rule 62-212.400, F.A.C Prevention of Significant Deterioration (PSD)	001-004,006-010		
Chapter 62-213, F.A.C. – Operation Permits for Major Sources of Air Pollution			
Rule 62-296.416, F.A.C. – Waste-to-Energy Facilities	All		
Chapter 62-297, F.A.C Stationary Sources - Emissions Monitoring			

{*Permitting Note: EU Nos. 001-004 and 008 do not meet the NSPS Subpart Eb applicability criteria in 40 CFR 60.50b. However, these EUs are required to meet applicable work practices, compliance testing and reporting and recordkeeping requirements in 40 CFR 60.53b, 60.54b, 60.55b, 60.58b and 60.59b as a result of incorporation of various provisions within these sections by the State plan in Rule 62-204.800(9)(b), F.A.C.*}

This facility also includes miscellaneous unregulated/insignificant emissions units and/or activities.

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received August 10, 2021 Draft permit renewal package issues on November 2, 2021

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4953 - Refuse Systems.

North American Industry Classification System (NAICS): 562219 – Other Nonhazardous Waste Treatment and Disposal.

<u>HAP</u>: The facility is identified as a major source of hazardous air pollutants (HAP).

<u>Title V</u>: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

<u>PSD</u>: The facility is a Prevention of Significant Deterioration (PSD)-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

<u>NSPS</u>: The facility operates units subject to the New Source Performance Standards (NSPS) of 40 Code of Federal Regulations (CFR) 60.

<u>NESHAP</u>: The facility operates units subject to the National Emissions Standards for Hazardous Air Pollutants (NESHAP) of 40 CFR 63.

Siting: Units 1-4 were originally certified pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

<u>CAM</u>: The facility does not operate units subject to the General Applicability provisions of 40 CFR 64, Compliance Assurance Monitoring (CAM), because the pollutants for which specific control devices were installed in order to meet major source level emissions limits are being monitored for continuous compliance through the use of continuous emissions monitoring systems (CEMS).

PROJECT REVIEW

Changes to the permit made as part of this revision are shown in strike through format for deletions and in <u>double</u> <u>underline</u> format for additions. For ease of identification, all changes have also been <u>highlighted in yellow</u> within the permit document.

General Changes

- 1. To reflect the current Title V air operation permit template, the Department logo and letterhead and rule citation style have been updated throughout the permit.
- 2. Cross-references have been added in specific conditions throughout the permit for ease of navigation.
- 3. Hyperlinks to the electronic Code of Federal Regulations (CFR) have been removed throughout the permit because the current versions of applicable federal regulations are now in the attached appendices.

Table of Contents Changes

4. "Appendix U – List of Unregulated Emissions Units and/or Activities", "Appendix NESHAP, Subpart A – General Provisions", "Appendix NESHAP, Subpart ZZZZ – NESHAP for Stationary Reciprocating Internal Combustion Engines" and "Appendix NSPS, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" were added to the table of contents reflect the addition of the corresponding federal regulations in the attached appendices.

- 5. "NSPS, Subpart Cb Emission Guidelines and Compliance Times for Large Municipal Waste Combustors" has been changed to "Appendix NSPS, Subpart Cb Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994" to reflect the title of 40 CFR 60, Subpart Cb. Additionally, this appendix has been reclassified as such to reflect that Subpart Cb is incorporated by reference in Rule 62-204.800(9)(b), F.A.C.
- 6. NSPS, Subpart Eb has been updated in the table of contents as follows to reflect the entire title of each corresponding subpart in 40 CFR 60.

NSPS, Subpart Cb – Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994

7. To reflect the Title V air operation permit template, Table 1 (Summary of Air Pollutant Standards and Terms) and Table 2 (Compliance Requirements) have been removed in the Table of Contents.

Section I Changes

Subsection A Changes

8. Acronyms for activated carbon injection and dioxin/furan (i.e., ACI and D/F, respectively) have been added following the respective full names in the facility description. The sentence "Miscellaneous insignificant emissions units and/or activities are also included," has been removed because this sentence is duplicative as it appears following the Summary of Emission Units table in Section I, Subsection B.

Subsection B Changes

9. Emissions Unit (EU) No. 014 has been added to the tabulated Summary of Emissions Units under the heading of "*Unregulated Emissions Units*" to reflect the reclassification of EU No. 014, the addition of Appendix U and the incorporation of EU No. 014 into Appendix U (see item **61**).

Subsection C Changes

10. Clarifications and name corrections to applicable federal and state regulations have been added to the table summarizing applicable regulations. An entry for 40 CFR 60, Subpart Dc has been added to this table to reflect that the MWC auxiliary burners are subject to Subpart Dc. The following permitting note elaborating on the incorporation of various parts of 40 CFR 60, Subpart Eb has been added following the summary table:

{Permitting Note: EU Nos. 001-004 and 008 do not meet the NSPS Subpart Eb applicability criteria in 40 CFR 60.50b. However, these EUs are required to meet applicable work practices, compliance testing and reporting and recordkeeping requirements in 40 CFR 60.53b, 60.54b, 60.55b, 60.58b and 60.59b as a result of incorporation of various provisions within these sections by the State plan in Rule 62-204.800(9)(b), <u>F.A.C.}</u>

Section II Changes

- 11. Facility-wide conditions were revised to reflect the current Title V air operation permit template and current Florida Administrative Code (F.A.C.) regulations.
- 12. To reflect information submitted in this Title V air operation permit renewal application, Facility-Wide Condition **FW5** (Unconfined Particulate Matter) has been revised as follows:
 - **FW5.** <u>Unconfined Particulate Matter</u>. 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. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:
 - a. Facility's <u>Biomass</u> Processing of Biomass. In accordance with permit conditions, reasonable precautions during the processing of biomass may include, but are not limited to the following:

- (1) Windows and doors of the enclosed space will be kept closed except when needed to minimize fugitive dust.
- (2) Conveyor systems, screens, handling shredded wood fines and dust shall be covered or enclosed.
- (3) Shredded wood conveyor systems have baghouse pick up points at the transfer points that are used to control excessive dust situations inside of the building.
- (4) Wind breaks are installed around the shredded wood load-out area.
- (5) Floors in the enclosed area shall be cleaned periodically.
- (6) Loading areas for shredded wood shall be cleaned or wetted as needed to minimize fugitive dust.
- (7) Trucks transporting shredded wood shall be covered.
- (8) Vegetation shall be planted on-site.
- b. Other Precautions to be taken at the Miami-Dade County Complex Other Precautions. <u>In accordance</u> with permit conditions, other precautions to be taken include, but are not limited to the following:
 - (1) Employment of proper dust-control techniques to prevent fugitive dust emissions during construction activities such as demolition of buildings, grading roads, construction, and land clearing (including construction to be experienced during facility improvements to air pollution control equipment to meet the Emission Guideline requirements of 40 CFR 60. Subpart Cb).
 - (2) Application of asphalt, water, oil, chemicals, or other dust suppressants to roads, yards, open stockpiles, and similar emissions units/activities as necessary to minimize fugitive dust (except for within the ash landfill the ash landfill has a separate dust control system).
 - (3) Confining abrasive blasting where possible.
 - (4) Operation of the landfill in accordance with all applicable portions of Chapter 62-701, F.A.C.
 - (5) All roads, except for roads within the ash landfill, shall be adequately paved to control visible emissions.
 - (6) Maximum 15 MPH speed limit signs shall be posted to minimize dust generation.
 - (7) Residue from grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash handling and silo system to minimize fugitive dust.
 - (8) The ash/residue in the bottom ash building shall be kept sufficiently moist to minimize fugitive dust during storage and handling operations.
 - (9) Transport vehicles for ash shall be covered.
 - (10) Bottom ash and fly ash shall be wetted as necessary to minimize fugitive dust prior to the use of conveyor systems.

Furthermore, doors and the building and roof openings can be closed to minimize fugitive dust. Ventilation fans can be turned off to reduce unconfined emissions, provided that safety and operations are not compromised. Water sprays can also be used <u>to reduce</u> unconfined PM. [Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received August 10, 2021.]

Section III Changes

13. To reflect the current Title V air operation permit template, the following permitting note has been added in the <u>Test Methods and Procedures</u> section in Section III, Subsections A through F, directing the permittee to the Department's Business Portal to submit compliance test notifications.

<u>{Permitting Note: Air compliance test notifications can now be completed online in the Department's</u> Business Portal. To access this online process, go to http://www.fidepportal.com/go/home and sign in (or register if you're a new user) from the link in the upper right corner of the page. On the Welcome page select the Submit option, then select Registration/Notification, and then click on Air Compliance Test Notifications.</u>

<u>Once in the process, just carefully read the instructions on each screen (and under the Help tabs) to complete the notification.}</u>

Subsection A Changes

14. The EU description has been updated with current application information including control technology and emissions monitoring descriptions and current stack parameters. Additional information regarding applicable regulations has been added to the permitting note following the EU description. The revised description appears as follows:

Design Waste Throughput Rating: The four emissions Units are identical RDF spreader stoker combustors with Zurn attributes designated as Units 1, 2, 3 and 4, respectively. Units 1-4 are four identical RDF spreader stoker combustors with Zurn attributes. RDF is burned in suspension and on a grate with a primary and secondary air system to provide air in varying proportions to promote the proper combustion. The design waste throughput rating of each municipal waste combustor is 648 tons/day when burning waste with a higher heating value (HHV) of 5,600 British thermal units per pound (Btu/lb). Actual waste throughput will vary depending upon the HHV of the waste actually burned and the steam production requirements as described and limited in this subsection. The auxiliary burners associated with each unit are permitted to fire natural gas or propane at a maximum heat input rate of 80 million British thermal units per hour (MMBtu/hr) as needed for startup, shutdown and for flame stabilization.

The gases from the combustion process pass through the furnace and convection sections of the boiler and then through the SDA and fabric filter baghouse. Lime slurry from an agitated lime tank mixed with mercury reagent is injected into the flue gases through the SDA. SO_2 and acid gases in the flue gases react with the injected lime to form calcium sulfate, calcium sulfite and calcium salts (e.g., calcium chloride and calcium fluoride). Dry solids separated in the SDA are removed from the bottom of the SDA and conveyed to an ash silo. SNCR is used to control NO_x emissions in each unit by injecting into the combustion gas path a 50% urea solution with a small amount of additives for scale and corrosion control. Activated carbon is also injected into the gas stream as an adsorbent for control of Hg and D/F emissions. Residual PM in the flue gas is removed by the baghouse. An induced draft fan with related ductwork is installed downstream of each baghouse and exhausts into individual flues of two multi-flue stacks. Unit Nos. 1 and 2 and Unit Nos. 3 and 4 each share a separate stack with 2 flues per stack. CO, SO_2 and NO_x emissions are monitored by CEMS, and VE is monitored by COMS.

The common stack shared by Unit Nos. 1 and 2 has a height of 250 feet (ft) and an exit diameter of 8.44 ft. Based on stack test data from December 7, 2020, exhaust gas exits the Unit No. 1 stack at a temperature of 296 degrees Fahrenheit (°F) and a flow rate of 213,388 actual cubic feet per minute (acfm) and the Unit No. 2 stack at 290°F and 190,062 acfm. Based on the highest historical record of operating data, the maximum dry standard flow rate is 122,637 dry standard cubic feet per minute (dscfm) for Unit No. 1 and 109,922 dscfm for Unit No. 2.

The common stack shared by Unit Nos. 3 and 4 also has a height of 250 feet (ft) and an exit diameter of 8.44 ft. Based on stack test data from December 7, 2020, exhaust gas exits the Unit No. 3 stack at a temperature of 290°F and 199,299 acfm and the Unit No. 4 stack at 287°F and 176,704 acfm. Based on the highest historical record of operating data, the maximum dry standard flow rate is 116,230 dscfm for Unit No. 3 and 98,668 dscfm for Unit No. 4.

The design waste throughput rating of each municipal waste combustor is 648 tons/day when burning waste with a higher heating value (HHV) of 5,600 Btu/lb. Actual waste throughput will vary depending upon the HHV of the waste actually burned and the steam production requirements as described and limited below.

<u>Design Heat Input Rating of the Auxiliary Bumers</u>: Auxiliary burners associated with each RDF combustor are permitted to fire propane and natural gas at a maximum heat input of 80 million Btu (MMBtu)/hour for startup, shutdown and malfunction, and at other times when necessary and consistent with good combustion practices.

{Permitting Note: These emissions units are regulated under Rule 62-204.800(9)(b), F.A.C., which <u>incorporates provisions from</u> establishes emissions standards and requirements based on 40 CFR 60, Subpart Cb – Emission Guidelines and Compliance Times for Large Municipal Waste Combustors that are Constructed on or before September 20, 1994, frevised as of July 1, 2009)" (Subpart Cb) and 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; Rule 62-212,400, F.A.C. – Prevention of Significant Deterioration (PSD), which required a Best Available Control Technology (BACT) Determination for PM and SO₂ emissions in PSD-FL-006; and, Rule 62-296.416, F.A.C. – Waste-to-Energy Facilities except that the emissions units in this subsection are subject to the more stringent Hg emissions limit in Rule 62-204.800(9)(b)3.d., F.A.C., which incorporates the limit from 40 CFR 60.33b(a)(3). The auxiliary burners are subject to 40 CFR 60, Subpart A – General Provisions and 40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rules 62-204.800(8)(c) and 62-204.800(8)(b)4. F.A.C., respectively. Units 1 and 2 share a common stack made up of two flues. Units 3 and 4 also share a common stack made up of two flues. The stack parameters for Unit 1 are: stack height = 250 feet; exit diameter = 8.44 feet; exit temperature = 300°F; actual volumetric flow rate = 184,981 acfm; and, dry standard flow rate = 88.250 dscfm. The stack parameters for Unit 2 are: stack height = 250 feet; exit diameter = 8.44 feet; exit temperature = 300°F; actual volumetric flow rate = 147,560 acfm; and, dry <mark>standard flow rate = 82,106 dscfm. The stack parameters for Unit 3 are: stack height = 250 feet; exit</mark> diameter = 8.44 feet; exit temperature = 294°F; actual volumetric flow rate = 175,580 acfm; and, dry standard flow rate = 88,250 dscfm. The stack parameters for the Unit 4 are: stack height = 250 feet; exit <u>diameter = 8.44 feet; exit temperature = 282°F; actual volumetric flow rate = 159,255 acfm; and, dry</u> <mark>standard flow rate = 88,250 dscfm. The actual volumetric flow rates are based on stack tests conducted in</mark> 2015. while the dry standard flow rates are the highest historical record.}

- 15. For all specific conditions in this subsection that represent provisions from the state plan in Rule 62-204.800(9)(b), F.A.C., corresponding federal regulations and referenced federal regulations have been added to the citations where applicable.
- 16. Missing citations for state regulations, federal regulations and air construction permits were added where applicable.
- 17. To reflect the current Title V air operation permit template and language originally established in Permit No. 0250348-011-AC/PSD-FL-006G, the citation of "Rule 62-210.200(PTE), F.A.C." has been added to Specific Condition A.1, and Specific Condition A.2 has been added as follows:
 - A.1. <u>Permitted Capacity</u>. The maximum operating rate measured as steam flow shall not exceed 198,000 pounds of steam per hour based on 4-hour block averaged measurements per emission unit. [<u>Rule 62-210.200(PTE), F.A.C.; and</u>, Permit No. 0250348-011-AC/PSD-FL-006G, Specific Condition A.8]
 - A.2. <u>Emissions Unit Operating Rate Limitation After Testing</u>. See the related testing provisions in <u>Appendix TR, Facility-wide Testing Requirements</u>. [Rule 62-297.310(3), F.A.C.]
- 18. To reflect applicable sections in 40 CFR 60, Subpart Eb, Specific Conditions A.3 and A.4 have been revised as follows:
 - A.3. <u>Maximum Demonstrated MWC Unit Load</u>. <u>Unit load means the steam load of the MWC measured as</u> specified in 40 CFR 60.58b(i)(6). Each unit shall not operate at a load level greater than 110% of the unit's "maximum demonstrated unit load." <u>The permittee shall not cause each emissions unit to operate</u> at a load level greater than 110 percent (%) of the maximum demonstrated MWC unit load, as defined in 40 CFR 60.51b, except as specified in the following paragraphs:
 - a. <u>During the annual D/F or Hg performance test and the 2 weeks preceding the annual D/F or Hg</u> performance test, no MWC unit load limit is applicable if the provisions of paragraph **A.3.b** are met.

b. <u>The MWC unit load limit may be waived in writing by the Department for the purpose of evaluating</u> <u>system performance, testing new technology or control technologies, diagnostic testing, or related</u> <u>activities for the purpose of improving facility performance or advancing the state-of-the-art for</u> <u>controlling facility emissions. The MWC unit load limit continues to apply, and remains enforceable.</u> <u>until and unless the Department grants the waiver.</u>

Maximum demonstrated MWC unit load means the highest 4-hour arithmetic average MWC unit load achieved during four consecutive hours during the most recent D/F performance test demonstrating compliance with the applicable limit for MWC organics. <u>MWC unit load means the steam load of the MWC unit measured as specified in 40 CFR 60.58(b)(i)(6) (see Specific Condition A.24)</u>. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b). [Rules 62-204.800(9)(b)7-a.2. & 4., F.A.C., implementing 40 CFR 60.31b, 60.51b & 60.53b(b)]

- A.4. Flue Gas Temperature. The temperature of the flue gas, measured at the PM control device inlet, shall not exceed 17 degrees Celsius above the maximum demonstrated PM control device temperature. The permittee shall not cause each emissions unit to operate at a temperature measured at the PM control device inlet, exceeding 17 degrees Celsius (°C) above the maximum demonstrated PM control device temperature as defined in 40 CFR 60.51b, except as specified in paragraphs A.4.a and A.4.b. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic measurement of temperature at the inlet to the PM control device record for 4 consecutive hours during the most recent dioxin/furan performance test.
 - a. During the annual D/F <u>or Hg</u> performance test and the 2 weeks preceding the annual D/F <u>or Hg</u> performance test, no PM control device temperature limitations are applicable <u>if the provisions of paragraph A.4.b are met</u>.
 - b. The PM control device temperature limits may be waived in writing accordance with permission granted by the Administrator or delegated State regulatory authority Department 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 Department grants the waiver.

 $[Rules 62-204.800(9)]{b} \frac{2.\&}{2.\&} 4. \frac{1}{2.\&} \frac{1}$

- The citation following Specific Condition A.6 (Hours of Operation) has been corrected from "[Permit No. 0250348-011-AC/PSD-FL-006G, Specific Condition 10]" to "[Permit No. 0250348-011-AC/PSD-FL-006G, Specific Condition <u>A.</u>10]".
- 20. Specific Condition A.7 (Methods of Operation Fuels), paragraph h has been corrected as follows in accordance with permit language originally established in Permit No. 0250348-011-AC/PSD-FL-006G:
 - h. Other Fuels or Wastes. Other fuels or wastes shall not be burned in the emissions units without prior specific written approval from the Division of Air Resource Management of the Department of Environmental Protection EPA.
- 21. To reflect the rule citations in Permit No. 0250348-011-AC/PSD-FL-006G and Rule 62-296.416(5), which incorporates 40 CFR 60.58b(m), Specific Condition **A.8** has been revised as follows:
 - A.8. <u>Air Pollution Control Equipment</u>. For each unit, the permittee constructed and shall operate and maintain the following equipment:
 - a. *Fabric filters*. Each unit is equipped with a particulate control fabric filters designed, constructed and operated for the purpose of removing PM, including ash and the reagent/reaction products from of the SDA and carbon injection systems. These fabric filters must be equipped with pressure drop monitoring equipment.
 - b. *Spray dryer absorbers*. Each unit is equipped with an SDA (scrubber) system including lime storage silo, slaking equipment and lime slurry injection equipment for the purpose of removing SO₂.

- c. *Carbon Injection*. Each unit is equipped with a carbon injection system. The activated carbon is utilized for the control of mercury and dioxin/furans. The carbon injection rate must be estimated and maintained in compliance with requirements set forth in 40 CFR 60.58b(<u>m</u>).
- d. Selective Non-Catalytic Reduction System. Each unit is equipped with a urea based SNCR system, including storage tank, pumps and injection ports, designed, constructed and operated to remove NO_X emissions. Operation is required only to the extent required to comply with emission standards.
 [Rules 62-204.800(9)(b)7.a. & 62-210.650.62-212.400(BACT) & 62-296.416(5), F.A.C.; and, Permit No. 0250348-011-AC/PSD-FL-006G, Specific Condition A.6]
- 22. To reflect the incorporation of applicable regulations from the State Plan in Rule 62-204.800(9)(b), F.A.C. into the permit body, Specific Conditions A.10, A.26, A.28, A.29, A.30, A.31, A.32, A.37, A.38, A.39, A.40, A.41, A.44, A.45, A.46, A.48 and A.49 have been added as follows:
 - A.10. Operator Certification. 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)] or a State certification program. [Rule 62-204.800(9)(b)5., F.A.C., implementing 40 CFR 60.54b(b)]
 - A.26. Activated Carbon Injection Monitoring. The owner or operator of an affected facility where ACI is used to comply with the Hg emission limit under Specific Condition A.20, and/or the D/F emission limits under Specific Condition A.16, or the D/F emission level specified in Specific Condition A.39.d(3) shall follow the procedures specified in paragraphs A.26.a through A.26.d.
 - a. During the performance tests for D/F and Hg, as applicable, the permittee 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 the following paragraphs.
 - An average carbon mass feed rate in kilograms per hour (kg/hr) or lb/hr shall be estimated during each performance test for Hg emissions.
 - (2) An average carbon mass feed rate in kg/hr or lb/hr shall be estimated during each subsequent performance test for D/F emissions. If a subsequent D/F performance test is being performed on only one affected facility at the MWC plant, as provided in Specific Condition A.39.d(3), the permittee 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.
 - b. During operation of the affected facility, the ACI 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 8hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs A.26.a(1) and A.26.a(2), except as specified in paragraphs A.26.b(1) and A.26.b(2).
 - (1) <u>During the annual D/F or Hg performance test and the 2 weeks preceding the annual D/F or Hg</u> performance test, no limit is applicable for average mass carbon feed rate if the provisions of paragraph A.26.b(2) are met.
 - (2) <u>The limit for average mass carbon feed rate may be waived in accordance with permission</u> granted by the Department 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.
 - c. The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kg or lbs) for each calendar quarter by two independent methods, according to the procedures in paragraphs A.26.c(1) and A.26.c(2).
 - (1) <u>The weight of carbon delivered to the plant.</u>
 - (2) Estimate the average carbon mass feed rate in kg/hr or lb/hr for each hour of operation for each affected facility based on the parameters specified under paragraph A.26.a, and sum the results

for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

d. Pneumatic injection pressure or other ACI system operational indicator shall be used to provide additional verification of proper ACI 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).

[Rules 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(m), & 62-296.416(5), F.A.C.]

- A.28. <u>COMS Requirements</u>. The owner or operator of an affected facility shall calibrate, maintain, and operate a COMS for measuring opacity and shall follow the methods and procedures specified in paragraphs A.28.a through A.28.c.
 - a. <u>The output of the COMS shall be recorded on a 6-minute average basis.</u>
 - b. <u>The COMS shall be evaluated and operated in accordance with 40 CFR 60.13.</u>
 - c. <u>The COMS shall conform to Performance Specification 1 in 40 CFR 60, Appendix B.</u>

[Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(c)(8)(i)-(iii)]

- A.29. <u>SO₂ CEMS Requirements. The procedures specified in the following paragraphs shall be used for</u> determining compliance with the SO₂ emission limit under Specific Condition A.13.
 - a. <u>The EPA Reference Method 19, section 4.3, shall be used to calculate the daily geometric average</u> <u>SO₂ emission concentration.</u>
 - b. <u>The EPA Reference Method 19, section 5.4, shall be used to determine the daily geometric average</u> <u>percent reduction in the potential SO₂ emission concentration.</u>
 - c. <u>CO₂ as Surrogate Diluent</u>. The owner or operator of an affected facility may request that compliance with the SO₂ emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
 - d. <u>Average Calculations Using CEMS Data</u>. Compliance with the SO₂ emission limit (concentration or percent reduction) shall be determined by using the CEMS specified in paragraph A.29.e to measure SO₂ 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.
 - e. <u>SO₂ CEMS</u>. The permittee shall calibrate, maintain, and operate a CEMS for measuring SO₂ emissions discharged to the atmosphere and record the output of the system.
 - f. <u>Compliance Averages</u>. Compliance with the SO₂ emission limit shall be determined based on the 24hour daily geometric average of the hourly arithmetic average emission concentrations using CEMS outlet data if compliance is based on an emission concentration, or CEMS inlet and outlet data if compliance is based on a percent reduction.
 - g. <u>Valid Hourly Averages and Minimum Data Requirements</u>. At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs A.29.g(1) and A.29.g(2) for 90% of the operating hours per calendar quarter and 95% of the operating days per calendar year that the affected facility is combusting MSW.
 - (1) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (2) Each SO₂ 1-hour arithmetic average shall be corrected to 7% O₂ on an hourly basis using the 1hour arithmetic average of the O₂ (or CO₂) CEMS data.
 - h. <u>24-Hour Average Data Calculation</u>. The 1-hour arithmetic averages required under paragraph A.29.g shall be expressed in parts per million corrected to 7% O₂ (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).

- i. <u>CEMS Data Inclusion Requirements</u>. All valid CEMS data shall be used in calculating average emission concentrations and percent reductions even if the minimum CEMS data requirements of paragraph **A.29.g** are not met.
- <u>CEMS Evaluation and Operation</u>. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS.
- k. <u>CEMS Relative Accuracy Requirements</u>. The CEMS shall be operated according to Performance Specification 2 in 40 CFR 60, Appendix B. For sources that have actual inlet emissions less than 100 ppmvd, the relative accuracy criterion for inlet SO₂ CEMS should be no greater than 20% of the mean value of the reference method test data in terms of the units of the emission standard, or 5 ppmvd absolute value of the mean difference between the reference method and the CEMS, whichever is greater.
 - (1) During each relative accuracy test run of the CEMS required by Performance Specification 2 in 40 CFR 60, Appendix B, SO₂ and O₂ (or CO₂) 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.29.k(1)(a) and A.29.k(1)(b).
 - (a) <u>For SO₂, EPA Reference Method 6, 6A, or 6C, or as an alternative ASME PTC-19-10-1981 –</u> part 10, shall be used.
 - (b) For O₂ (or CO₂), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-<u>10-1981 – part10, as applicable, shall be used.</u>
 - (2) The span value of the CEMS at the inlet to the SO_2 control device shall be 125% of the maximum estimated hourly potential SO_2 emissions of the municipal waste combustor unit. The span value of the CEMS at the outlet of the SO_2 control device shall be 50% of the maximum estimated hourly potential SO_2 emissions of the MWC unit.
- <u>Accuracy Determinations and Calibration Drift</u>. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in 40 CFR 60, Appendix F.
- m. <u>Missing Data Requirements</u>. When SO₂ emissions data are not obtained because of CEMS 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 emissions data for a minimum of 90% of the hours per calendar quarter and 95% of the hours per calendar year that the affected facility is operated and combusting municipal solid waste.

[Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(e)(1)-(10) & (12)-(14)]

{Permitting Note: 40 CFR 60.58b(e)(1), (2) and (4) require calculation of daily geometric average SO_2 emission concentrations or daily geometric average percent reduction in potential SO_2 emission concentration using EPA Reference Method 19, sections 4.3 and 5.4, respectively. The references to these sections are typographical errors, and the correct references to the calculation methods for SO_2 emission concentrations and potential SO_2 percent reduction are sections 12.4.3 and 12.5.4, respectively.}

- **A.30.** <u>NO_x CEMS Requirements</u>. The procedures specified in the following paragraphs shall be used to determine compliance with the NO_x emission limit for affected facilities under Specific Condition **A.14**.
 - a. <u>The EPA Reference Method 19, section 4.1, shall be used for determining the daily arithmetic</u> average NO_x emission concentration.
 - b. <u>CO₂ as Surrogate Diluent</u>. The owner or operator of an affected facility may request that compliance with the NO_x emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
 - c. <u>Average Calculations Using CEMS Data</u>. Compliance with the NO_x emission limit shall be determined by using the CEMS specified in paragraph A.30.d for measuring NO_x and calculating a <u>24-hour daily arithmetic average emission concentration using EPA Reference Method 19, section 4.1.</u>

- d. <u>NO_X CEMS</u>. The owner or operator of an affected facility subject to the NO_X limit under Specific Condition A.14 shall calibrate, maintain, and operate a CEMS for measuring NO_X discharged to the atmosphere, and record the output of the system.
- e. <u>Compliance Averages</u>. Compliance with the emission limit for NO_X required under Specific Condition A.14 shall be determined based on the 24-hour daily arithmetic average of the hourly emission concentrations using CEMS outlet data.
- f. <u>Valid Hourly Averages and Minimum Data Requirements</u>. At a minimum, valid CEMS hourly averages shall be obtained as specified in A.30.f(1) and A.30.f(2) for 90% of the operating hours per calendar quarter and for 95% of the operating hours per calendar year that the affected facility is combusting MSW.
 - (1) At least 2 data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (2) Each NO_x 1-hour arithmetic average shall be corrected to 7% O₂ on an hourly basis using the 1hour arithmetic average of the O₂ (or CO₂) CEMS data.
- g. <u>24-Hour Average Data Calculation</u>. The 1-hour arithmetic averages required by paragraph A.30.d 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).
- h. <u>CEMS Data Inclusion Requirements</u>. All valid CEMS data must be used in calculating emission averages even if the minimum CEMS data requirements of paragraph **A.30.f** are not met.
- i. <u>CEMS Evaluation and Operation</u>. The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the CEMS.
- j. <u>CEMS Relative Accuracy Requirements</u>. The owner or operator of an affected facility shall operate the CEMS according to Performance Specification 2 in 40 CFR 60, Appendix B and shall follow the procedures and methods specified in paragraphs A.30.j(1) and A.30.j(2).
 - (1) During each relative accuracy test run of the CEMS required by Performance Specification 2 of 40 CFR 60, Appendix B, NO_x and O₂ (or CO₂) 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.30.j(1)(a) and A.30.j(1)(b).
 - (a) <u>For NO_x, EPA Reference Method 7, 7A, 7C, 7D, or 7E shall be used.</u>
 - (b) For O₂ (or CO₂), EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-<u>10-1981 – part 10, as applicable, shall be used.</u>
 - (2) The span value of the CEMS shall be 125% of the maximum estimated hourly potential NO_x emissions of the MWC unit.
- k. <u>Accuracy Determinations and Calibration Drift</u>. Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in 40 CFR 60, Appendix F.

 <u>Missing Data Requirements</u>. When NO_x continuous emission data are not obtained because of CEMS 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% of the hours per calendar quarter and 95% of the hours per calendar year the unit is operated and combusting MSW.
 [Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(h)(1)-(12)]

- A.31. <u>CO CEMS Requirements. The procedures in the following paragraphs shall be used for determining</u>
 - compliance with the operating requirements under 40 CFR 60.53b.
 - a. <u>Compliance Averages</u>. Compliance with the CO emission limits in Specific Condition A.15 shall be determined using a 24-hour daily arithmetic average.
 - b. <u>CO CEMS.</u> The owner or operator of an affected facility shall calibrate, maintain, and operate a CEMS for measuring CO at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs **A.31.b(1)** through **A.31.b(3)**.
 - (1) <u>The continuous emission monitoring system shall be operated according to Performance</u> <u>Specification 4A in 40 CFR 60, Appendix B.</u>

- (2) <u>During each relative accuracy test run of the continuous emission monitoring system required by</u> <u>Performance Specification 4A in 40 CFR 60, Appendix B, CO and O₂ (or CO₂) 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.31.b(2)(a) and A.31.b(2)(b).</u>
 - (a) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
 - (b) For O₂ (or CO₂), EPA Reference Method 3, 3A, or 3B, or ASME PTC-19-10-1981 part 10 (incorporated by reference, see 40 CFR 60.17), as applicable, shall be used.
- (3) <u>The span value of the CEMS shall be 125% of the maximum estimated hourly potential CO</u> emissions of the MWC unit.
- c. <u>24-Hour and 1-Hour Average Data Calculation</u>. The 24-hour daily arithmetic average specified in paragraph A.31.a shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7% O₂ (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the CEMS. At least two data points shall be used to calculate each 1-hour arithmetic average.
- d. <u>CO₂ as Surrogate Diluent</u>. The owner or operator of an affected facility may request that compliance with the CO emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
- e. <u>Valid Hourly Averages and Minimum Data Requirements</u>. At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraphs A.31.e(1) and A.31.e(2) for at least 90% of the operating hours per calendar quarter and 95% of the operating hours per calendar year that the affected facility is combusting MSW.
 - (1) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
 - (2) At a minimum, each CO 1-hour arithmetic average shall be corrected to 7% O₂ on an hourly basis using the 1-hour arithmetic average of the O₂ (or CO₂) CEMS data.
- f. <u>Missing Data Requirements</u>. All valid CEMS data must be used in calculating the parameters specified under this specific condition even if the minimum data requirements of paragraph A.31.e are not met. When CO continuous emission data are not obtained because of CEMS 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.
- g. <u>Accuracy Determinations and Calibration Drift.</u> Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS shall be performed in accordance with procedure 1 in 40 CFR <u>60, Appendix F.</u>

[Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(i)(2)-(5) & (10)-(12)]

- A.32. O_2 and CO_2 CEMS. The owner or operator of an affected facility shall calibrate, maintain, and operate a CEMS for measuring the O_2 or CO_2 content of the flue gas at each location where CO_2 , SO_2 , NO_X emissions, or PM (if the owner or operator elects to continuously monitor emissions under 40 CFR 60.58b(n)) are monitored and record the output of the system and shall comply with the test procedures and test methods specified in paragraphs A.32.a through A.32.g of this section.
 - a. <u>The span value of the O_2 (or 20% CO₂) monitor shall be 25% O_2 (or 20% CO₂).</u>
 - b. <u>The monitor shall be evaluated and operated in accordance with 40 CFR 60.13.</u>
 - c. The monitor shall conform to Performance Specification 3 in 40 CFR 60. Appendix B except for section 2.3 (relative accuracy requirement).
 - d. <u>The quality assurance procedures of 40 CFR 60, Appendix B except for section 5.1.1 (relative accuracy test audit) shall apply to the monitor.</u>
 - e. If CO₂ is selected for use in diluent corrections, the relationship between O₂ and CO₂ levels shall be established during the initial performance test according to the procedures and methods specified in paragraphs A.32.e(1) through A.32.e(4). This relationship may be reestablished during performance compliance tests.

- (1) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and CO₂ at a sampling location. Method 3, 3A, or 3B, or as an alternative ASME PTC-<u>19-10-1981 – part 10, as applicable, shall be used to determine the O₂ concentration at the same location as the CO₂ monitor.</u>
- (2) Samples shall be taken for at least 30 minutes in each hour.
- (3) Each sample shall represent a 1-hour average.
- (4) <u>A minimum of three runs shall be performed.</u>
- f. The relationship between CO₂ and O₂ concentrations that is established in accordance with paragraph A.32.e 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.
- g. During a loss of boiler water level control or loss of combustion air control malfunction period as specified in Specific Condition A.21, a diluent cap of 14% for O₂ or 5% for CO₂ may be used in the emissions calculations for SO₂ and NO_x.

[Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(b)(1), (2) & (3)-(8)]

- A.38. <u>PM Testing Requirements</u>. Except as provided in paragraph A.38.f, the procedures and test methods specified in paragraphs A.38.a through A.38.f shall be used to determine compliance with the emission limits for PM under Specific Condition A.12.
 - a. <u>The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.</u>
 - b. <u>The EPA Reference Method 3, 3A or 3B, or as an alternative ASME PTC-19-10-1981 part 10, as</u> applicable, shall be used for gas analysis.
 - c. <u>EPA Reference Method 5 shall be used for determining compliance with the particulate matter</u> 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 O₂ or CO₂ measurement shall be obtained simultaneously with each Method 5 run.
 - d. 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% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
 - e. <u>As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of</u> the PM emission concentrations from the three test runs is used to determine compliance.
 - f. In place of PM testing with EPA Reference Method 5, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM 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 PM emissions instead of conducting performance testing using EPA Method 5 shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in 40 CFR 60.58b(c)(10)(i) through (c)(10)(xiv). The owner or operator who elects to continuously monitor PM emissions instead of conducting performance testing using EPA Method 5 is not required to complete performance testing for particulate matter as specified in 40 CFR 60.58b(c)(9) (see Specific Condition A.35) and is not required to continuously monitor opacity as specified in 40 CFR 60.58b(c)(8) (see Specific Condition A.28).
 [Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(c)(1)-(5) & (10)]

A.39. <u>D/F Testing Requirements</u>. The procedures and test methods specified in the following paragraphs shall be used to determine compliance with the limits for D/F emissions under Specific Condition **A.16**.

- a. <u>The EPA Reference Method 1 shall be used for determining the location and number of sampling</u> points.
- b. <u>The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981 part 10, as</u> <u>applicable, shall be used for flue gas analysis.</u>
- c. <u>The EPA Reference Method 23 shall be used for determining the dioxin/furan emission</u> <u>concentration.</u>
 - (1) <u>The minimum sample time shall be 4 hours per test run.</u>

- (2) <u>An O₂ (or CO₂) measurement shall be obtained simultaneously with each Method 23 test run for D/F.</u>
- d. <u>The owner or operator of an affected facility shall conduct performance tests for D/F emissions in accordance with paragraph A.39.c, according to one of the schedules specified in paragraphs A.39.d(1) through A.39.d(3).</u>
 - (1) 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).
 - (2) 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 A.39.d(3), may test one unit for D/F and apply the D/F operating parameters to similarly designed and equipped units on site by meeting the requirements specified in A.39.d(2)(a) through A.39.d(2)(d).
 - (a) Follow the testing schedule established in paragraph A.39.d(3). For example, each year a different affected facility at the MWC 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 A.39.d(3) for one affected facility, the owner or operator may elect to apply the average carbon mass feed rate and associated ACI system operating parameter levels for D/F as established in Specific Condition A.26 to similarly designed and equipped units on site.
 - (c) Upon testing each subsequent unit in accordance with the testing schedule established in paragraph A.39.d(3), the D/F and Hg emissions of the subsequent unit shall not exceed the D/F and Hg emissions measured in the most recent test of that unit prior to the revised operating parameter levels.
 - (d) <u>The owner or operator of an affected facility that selects to follow the performance testing</u> <u>schedule specified in paragraph A.39.d(3) and apply ACI system operating parameters to</u> <u>similarly designed and equipped units on site shall follow the procedures specified in Specific</u> <u>Condition A.44.d for reporting.</u>
 - (3) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 7 ng/dscm (total mass) for all affected facilities located within a MWC plant, the owner or operator of the MWC plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the MWC plant. At a minimum, a performance test for D/F 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 MWC plant. Each year a different affected facility at the MWC 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 D/F emission level less than or equal to 7 ng/dscm (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 D/F emission level greater than 7 ng/dscm (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 D/F emission level less than or equal to 7 ng/dscm (total mass).
- e. <u>The owner or operator of an affected facility that selects to follow the performance testing schedule</u> specified in paragraph A.39.d(3) shall follow the procedures specified in Specific Condition A.44.d for reporting the selection of this schedule.
- f. <u>The owner or operator of an affected facility where activated carbon is used shall follow the</u> procedures specified in Specific Condition A.26 for measuring and calculating the carbon usage rate.

- g. The owner or operator of an affected facility may request that compliance with the D/F emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
- h. <u>As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of</u> the D/F emission concentrations from the three test runs is used to determine compliance.
- i. In place of D/F sampling and testing with EPA Reference Method 23, an owner or operator may elect to sample D/F by installing, calibrating, maintaining, and operating a continuous automated sampling system for monitoring D/F 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 D/F 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 D/F 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 40 CFR 60.58b(p) and (q).

[Rule 62-204.800(9)(b)7., F.A.C., implementing 40 CFR 60.58b(g)(1)-(3), (5)-(10)]

- A.40. <u>HCl Testing Requirements</u>. The procedures and test methods specified in paragraphs A.40.a through A.40.f and Specific Condition A.35 shall be used for determining compliance with the HCl emission limit under Specific Condition A.17.
 - a. <u>The EPA Reference Method 26 or 26A, as applicable, shall be used to determine the HCl emission</u> concentration. The minimum sampling time shall be 1 hour.
 - b. <u>An O₂ (or CO₂) measurement shall be obtained simultaneously with each test run for HCl required by paragraph **A.40.a**.</u>
 - c. <u>The percent reduction in potential HCl emissions (% P_{HCl}) is computed using equation 2:</u>

$$\frac{(\%P_{HCl}) - \left(\frac{E_i - E_o}{E_i}\right) \times 100 \quad (2)}{E_i}$$

Where:

- <u>%P_{HCL} = percent reduction of the potential HCl emissions achieved.</u>
- $\frac{E_i = \text{potential HCl emission concentration measured at the control device inlet, corrected to 7% O_2}{(dry basis).}$
- $\frac{E_{o} = \text{controlled HCl emission concentration measured at the control device outlet, corrected to 7% O_{2}}{(\text{dry basis}).}$
- d. The owner or operator of an affected facility may request that compliance with the HCl emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
- e. <u>As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of</u> the HCl emission concentrations or percent reductions from the three test runs is used to determine compliance.
- f. In place of HCl testing with EPA Reference Method 26 or 26A, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring HCl emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o).

[Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58(f)]

A.41. Cd, Pb and Hg Testing Requirements. The procedures and test methods specified in in the following paragraphs shall be used to determine compliance with the emission limits for Cd, Pb and Hg in Specific Conditions A.18, A.19 and A.20.

- a. <u>The procedures and test methods specified in paragraphs A.41.a(1) through A.41.a(6) and Specific Condition A.35 shall be used to determine compliance with the emission limits for Cd and Pb under Specific Conditions A.18 and A.19.</u>
 - <u>The EPA Reference Method 1 shall be used for determining the location and number of sampling</u> points.
 - (2) <u>The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981 part 10,</u> as applicable, shall be used for flue gas analysis.
 - (3) <u>The EPA Reference Method 29 shall be used for determining compliance with the Cd and Pb</u> emission limits.
 - (4) An O₂ or CO₂ measurement shall be obtained simultaneously with each Method 29 test run for Cd and Pb required under paragraph A.41.a(3).
 - (5) The owner or operator of an affected facility may request that compliance with the Cd or Pb emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in paragraph A.32.e.
 - (6) <u>All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the Cd or Pb emission concentrations from three test runs or more shall be used to determine compliance.</u>
- b. <u>The procedures and test methods specified in paragraph A.41.b(1) through A.41.b(8) and Specific Condition A.35 shall be used to determine compliance with the Hg emission limit under Specific Condition A.20.</u>
 - <u>The EPA Reference Method 1 shall be used for determining the location and number of sampling</u> points.
 - (2) <u>The EPA Reference Method 3, 3A, or 3B, or as an alternative ASME PTC-19-10-1981 part 10,</u> as applicable, shall be used for flue gas analysis.
 - (3) <u>The EPA Reference Method 29 or as an alternative ASTM D6784-02 shall be used to determine</u> the mercury emission concentration. <u>The minimum sample volume when using Method 29 as an</u> alternative ASTM D6784-02 for Hg shall be 1.7 cubic meters.
 - (4) <u>An O₂ (or CO₂) measurement shall be obtained simultaneously with each Method 29 or as an alternative ASTM D6784-02 test run for Hg required under paragraph **A.41.b(3)**.</u>
 - (5) <u>The percent reduction in the potential Hg emissions (%PHg) is computed using equation 1:</u>

Where:

- $\frac{E_i = \text{potential HCl emission concentration measured at the control device inlet, corrected to 7%}{O_2 (dry basis).}$
- $\frac{E_{o} = \text{controlled HCl emission concentration measured at the control device outlet, corrected to$ $<math display="block">\frac{7\% O_{2} \text{ (dry basis).}}{7\% O_{2} \text{ (dry basis).}}$
- (6) <u>All performance tests shall consist of a minimum of three test runs conducted under</u> representative full load operating conditions. The average of the Hg emission concentrations or percent reductions from three test runs or more is used to determine compliance.
- (7) The owner or operator of an affected facility may request that compliance with the Hg emission limit be determined using CO₂ measurements corrected to an equivalent of 7% O₂. The relationship between O₂ and CO₂ levels for the affected facility shall be established as specified in Specific Condition A.32.e.
- (8) The owner or operator of an affected facility where ACI is used to comply with the Hg emission limit shall follow the procedures specified in Specific Condition A.26 for measuring and calculating carbon usage.

- c. In place of Cd and Pb 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 Cd and Pb emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o).
- d. In place of Hg 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 CEMS or a continuous automated sampling system for monitoring Hg emissions discharged to the atmosphere and record the output of the system according to the provisions of 40 CFR 60.58b(n) and (o), or 40 CFR 60.58b(p) and (q), as appropriate. The owner or operator who elects to continuously monitor Hg in place of Hg testing with EPA Reference Method 29 or as an alternative ASTM D6784-02 is not required to complete performance testing for Hg as specified in Specific Condition A.35.

[Rule 62-204.800(9)(b)7.a., F.A.C., implementing 40 CFR 60.58b(d)(1)-(4)]

Permitting Note: In accordance with 40 CFR 60.50b(n)(6), approval of site specific monitoring plans for CEMS specified in 40 CFR 60.58b(n) and (o) or continuous automated sampling systems specified in 40 CFR 60.58b(p) and (q), which would serve as alternatives to performance testing for D/F, HCl, Pb, Hg and Cd, requires approval by the EPA as this authority was not transferred to the Department.

- A.44. Semiannual Operational Data Reports. The owner or operator of an affected facility shall submit semiannual reports that include the information specified in paragraphs A.44.a through A.44.e. as applicable.
 - a. A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs A.44.a(1) through A.44.a(5).
 - (1) A list of the PM, opacity, Cd, Pb, Hg, D/F and HCl emission levels achieved during the performance tests recorded under Specific Condition A.48.h.
 - (2) A list of the highest emission level recorded for SO_2 , NO_3 , CO_3 , MWC unit load level, and PM control device inlet temperature based on the data recorded under Specific Conditions A.48.b(2)(a) through A.48.b(2)(d).
 - (3) List the highest opacity level measured, based on the data recorded under Specific Condition A.48.b(1)(a).
 - (4) Periods when valid data were not obtained as described in paragraph A.44.a(4)(a).
 - (a) The total number of hours per calendar quarter and hours per calendar year that valid data for SO_2 , NO_x , CO_x , MWC unit load, or PM control device temperature data were not obtained based on the data recorded under Specific Condition A.48.e.
 - (5) Periods when valid data were excluded from the calculation of average emission concentrations or parameters as described in paragraph A.44.a(5)(a).
 - (a) The total number of hours that data for SO_2 , NO_X , CO, MWC unit load and PM control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under Specific Condition A.48.f.
 - b. The summary of data reported under paragraph A.44.a shall also provide the types of data specified in paragraphs A.44.a(1) through A.44.a(5) for the calendar year preceding the year being reported, in order to provide the Department with a summary of the performance of the affected facility over a 2vear period.
 - c. The summary of data including the information specified in paragraphs A.44.a and A.44.b shall highlight any emission or parameter levels that did not achieve the emission limits specified under Specific Conditions A.11 or A.20 or parameter limits specified under Specific Conditions A.3, A.4 and **A.26**.
 - d. A notification of intent to begin the reduced D/F performance testing schedule specified in Specific Condition A.39.d(3) during the following calendar year and notification of intent to apply the average carbon mass feed rate and associated ACI system operating parameter levels as established in Specific Condition A.26 to similarly designed and equipped units on site.

e. <u>Documentation of periods when all certified chief facility operators and certified shift supervisors are</u> off site for more than 12 hours.

[Rule 62-204.800(9)(b)8., F.A.C., implementing 40 CFR 60.59b(g)(1)(i)-(iii), (iv)(A),(v)(A), (g)(2)-(5) & (1): and, 40 CFR 60.19(c)]

- A.45. <u>Semiannual Compliance Reports</u>. The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs A.45.a through A.45.e for any recorded pollutant or parameter that does not comply with the pollutant limits specified under Specific Conditions A.11 or A.20 or parameter limits specified under Specific Conditions A.3, A.4 and A.26, according to the schedule specified under paragraph A.45.f.
 - a. <u>The semiannual report shall include information recorded under Specific Condition A.48.c for SO₂.</u> <u>NO_X, CO, MWC unit load level, PM control device inlet temperature, and opacity.</u>
 - b. For each date recorded as required by Specific Condition A.48.c and reported as required by paragraph A.45.a, the semiannual report shall include the SO₂, NO_x, CO, MWC unit load level, PM control device inlet temperature, or opacity data, as applicable, recorded under paragraphs A.48.b(2)(a) through A.48.b(2)(d) and A.48.b(1)(a), as applicable.
 - c. If the test reports recorded under Specific Condition A.48.h document any PM, opacity, Cd, Pb, Hg, D/F, HCl, 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.
 - d. <u>The semiannual report shall include the information recorded under Specific Condition A.48.k for the</u> <u>ACI system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate.</u>
 - e. For each operating date reported as required by A.45.d, the semiannual report shall include the carbon feed rate data recorded under Specific Condition A.48.d(3).
 - f. <u>Semiannual reports required by this specific condition shall be submitted according to the schedule</u> specified in paragraphs A.45.f(1) and A.45.f(2).
 - (1) If the data reported in accordance with paragraphs A.45.a through A.45.e were collected during the first calendar half, then the report shall be submitted by August 29th following the first calendar half.
 - (2) If the data reported in accordance with paragraphs A.45.a through A.45.e were collected during the second calendar half, then the report shall be submitted by March 1st following the second calendar half.

[Rule 62-204.800(9)(b)8., F.A.C., implementing 40 CFR 60.59b(h) & 60.59b(l); and, 40 CFR 60.19(a)]

- A.46. <u>Report Submission Requirements</u>. All reports specified under Specific Conditions A.44 and A.45 shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these specific conditions and maintained onsite as a paper copy for a period of 5 years. [Rule 62-204.800(9)(b)8., F.A.C., implementing 40 CFR 60.59b(j)]
- A.48. <u>MWC Recordkeeping Requirements. The permittee shall maintain records of the information</u> specified in paragraphs A.48.a through A.48.k, as applicable, for each affected facility for a period of at least 5 years.
 - a. <u>The calendar date of each record.</u>
 - b. <u>The emission concentrations and parameters measured using continuous monitoring systems as</u> <u>specified under paragraphs A.48.b(1) and A.48.b(2).</u>
 - (1) <u>The measurements specified in paragraphs A.48.b(1)(a) through A.48.b(1)(d) shall be recorded</u> and be available for submittal to the Department or review on site by an EPA or State inspector.
 - (a) <u>All 6-minute average opacity levels as specified under Specific Condition A.38</u>.
 - (b) <u>All 1-hour average SO₂ emission concentrations as specified under Specific Condition A.29.</u>
 - (c) <u>All 1-hour average NO_x emission concentrations as specified under Specific Condition A.30</u>.
 - (d) <u>All 1-hour average CO emission concentrations, MWC unit load measurements, and PM</u> <u>control device inlet temperatures as specified under Specific Condition **A.31**.</u>

- (2) <u>The average concentrations and percent reductions, as applicable, specified in paragraphs</u> <u>A.48.b(2)(a) through A.48.b(2)(d) shall be computed and recorded, and shall be available for</u> <u>submittal to the Department or review on-site by an EPA or State inspector.</u>
 - (a) <u>All 24-hour daily geometric average SO₂ emission concentrations and all 24-hour daily geometric average percent reductions in SO₂ emissions as specified under Specific Condition <u>A.29.</u></u>
 - (b) <u>All 24-hour daily arithmetic average NO_x emission concentrations as specified under Specific Condition A.30.</u>
 - (c) <u>All 4-hour block or 24-hour daily arithmetic average CO emission concentrations, as</u> applicable, as specified under Specific Condition **A.31**.
 - (d) <u>All 4-hour block arithmetic average MWC unit load levels and PM control device inlet</u> temperatures as specified under Specific Condition **A.31**.
- c. Identification of the calendar dates when any of the average emission concentrations, percent reductions, or operating parameters recorded under paragraphs A.48.b(2)(a) through A.48.b(2)(d), or the opacity levels recorded under paragraph A.48.b(1)(a) are above the applicable limits, with reasons for such exceedances and a description of corrective actions taken.
- d. <u>For affected facilities that apply activated carbon for Hg or D/F control, the records specified in</u> paragraphs **A.48.d(1)** through **A.48.d(5)**.
 - The average carbon mass feed rate (in kg/hr or lb/hr) estimated as required under Specific Condition A.26.a(1) during all subsequent annual performance tests, with supporting calculations.
 - (2) <u>The average carbon mass feed rate (in kg/hr or lb/hr) estimated as required under Specific</u> <u>Condition A.26.a(2) during the initial D/F performance test and all subsequent annual</u> <u>performance tests, with supporting calculations.</u>
 - (3) <u>The average carbon mass feed rate (in kg/hr or lb/hr) estimated for each hour of operation as</u> required under Specific Condition A.26.c(2), with supporting calculations.
 - (4) <u>The total carbon usage for each calendar quarter estimated as specified by Specific Condition</u> <u>A.26.c.</u>, with supporting calculations.
 - (5) <u>ACI system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).</u>
- e. <u>Identification of the calendar dates and times (hours) for which valid hourly data specified in</u> <u>paragraphs A.48.e(1) through A.48.e(5) have not been obtained, including reasons for not obtaining</u> <u>the data and a description of corrective actions taken.</u>
 - <u>SO₂ emissions data;</u>
 - (2) <u>NO_x emissions data;</u>
 - (3) CO emissions data;
 - (4) MWC unit load data;
 - (5) <u>PM control device temperature data; and</u>
- f. Identification of each occurrence that SO₂ emissions data, NO_x emissions data or operational data (*i.e.*, CO emissions, unit load, and PM control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- g. The results of daily drift tests and quarterly accuracy determinations for SO₂, NO_x, and CO CEMS, as required under 40 CFR 60, Appendix F, procedure 1.
- h. <u>The test reports documenting the results of all annual performance tests listed in paragraphs A.48.h(1)</u> and A.48.h(2) shall be recorded along with supporting calculations.
 - <u>The results of all annual performance tests conducted to determine compliance with the PM.</u> <u>opacity, Cd, Pb, Hg, D/F, HCl, and fugitive ash emission limits.</u>
 - (2) For all subsequent D/F performance tests recorded under paragraph A.48.h(1), the maximum demonstrated MWC unit load and maximum demonstrated PM control device temperature (for each PM control device).
- i. <u>The records specified in paragraphs A.48.i(1) and A.48.i(2).</u>

- (1) <u>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 Specific Condition A.10 including the dates of initial and renewal certifications and documentation of current certification.</u>
- (2) <u>Records of when a certified operator is temporarily off site</u>. Include two main items:
 - (a) If the certified chief facility operator and certified shift supervisor are off site for more than <u>12 hours, but for 2 weeks or less, and no other certified operator is on site, record the dates</u> 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.
- j. For affected facilities that apply activated carbon, identification of the calendar dates when the average carbon mass feed rates recorded under paragraph **A.48.d(3)** were less than either of the hourly carbon feed rates estimated during performance tests for mercury emissions and recorded under paragraphs **A.48.d(1)** and **A.48.d(2)**, 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 **A.48.d(3)** were less than either of the hourly carbon feed rates recorded under paragraph **A.48.d(3)** were less than either of the hourly carbon feed rates estimated during performance tests for D/F emissions and recorded under paragraphs **A.48.d(1)** and **A.48.d(2)**, respectively, with reasons for such feed rates.
- k. For affected facilities that apply activated carbon for mercury or D/F control, identification of the calendar dates when the ACI system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate (e.g., screw feeder speed) recorded under paragraph A.48.d(5) are below the level(s) estimated during the performance tests as specified in Specific Conditions A.26.a(1) and A.26.a(2), with reasons for such occurrences and a description of corrective actions taken.
 [Rule 62-204.800(9)(b)8., F.A.C., implementing 40 CFR 60.59b(d)(1), (2)(i)(A)-(D), (2)(ii)(A)-(D), (3), (4), (6)(i)-(v), (7)-(9), (12)(ii), (12)(iv), (14) & (15)]
- A.49. <u>Record Format Requirements</u>. All records specified under Specific Condition A.48 shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Department. [Rule 62-204.800(9)8., F.A.C., implementing 40 CFR 60.59b(k)]
- 23. The complete regulatory language in Rule 62-204.800(9)(b)7.a., F.A.C. and 40 CFR 60.58b(i)(6) has been added to Specific Condition **A.24**, which has been revised as follows:
 - A.24. <u>Continuous Steam Flow Monitoring System</u>. The owner or operator shall calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam flow in lb/hour on a continuous basis; and record the output of the monitor to determine compliance with the load level requirements under A.3</u>. Steam flow shall be calculated in 4-hour block arithmetic averages. Additionally:
 - a. 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 shall be used for calculating the steam flow. 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 shall be followed for design, construction, installation, calibration, and use of nozzles and orifices.

- b. <u>Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they</u> are installed.
- c. All signal conversion elements associated with steam measurements must be calibrated according to the manufacturer's instructions <u>before each D/F performance test, and</u> at least once per year.
 [<u>Rule 62-204.800(9)(b)7.a., implementing 40 CFR 60.58b(i)(6); and</u>, Permit No. 0250348-011-AC/PSD-FL-006G, Specific Condition A.21]
- 24. To accurately reflect applicable sections in 40 CFR 60, Subpart Eb, Specific Condition A.25 has been corrected and revised as follows:
 - A.25. Inlet Temperature to PM Control Device (Baghouse). The owner or operator shall calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each PM control device utilized. Temperature shall be calculated in 4 hour block arithmetic averages. To determine compliance with the maximum PM control device temperature requirements under Specific Condition A.4, the permittee shall calibrate, maintain and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each PM control device used by each emissions unit. Temperature shall be calculated in 4-hour block arithmetic averages. [Rules 62-213.440 62-204.800(9)(b)7.a., implementing 40 CFR 60.58b(i)(7), & 62-296.416(4)(b), F.A.C.]
- 25. To reflect the approval of alternative sampling procedure (ASP) No. 15-O-AP, "ASP No. 15-O-AP" has been added to the citation for Specific Condition **A.33** (Test Methods).
- 26. To reflect the current Title V air operation permit template, the reporting schedule summary has been added as Specific Condition A.42 as follows:
 - A.42. <u>Reporting Schedule</u>. The following reports and notifications shall be submitted to the Compliance <u>Authority</u>:

Report	Reporting Deadline	Related Condition(s)
Stack Test Reports	45 days after completion of final test run	<u>A.43</u>
SemiannualOperationalData Reports	March 1 st and August 29 th (i.e., by 60 th	<u>A.44</u>
Semiannual Compliance Reports	<u>day following each calendar half)</u>	<u>A.45</u>
[Rule 62-213.440(1)(b), F.A.C.]		

- 27. DEP Method 9 was a test method that was established in Rule 62-297.440(9)(c), F.A.C. Because this rule has been repealed, Specific Condition A.43 has been revised as follows:
 - A.43. <u>Stack Test Reports</u>. The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Compliance Authority on the results of each such test. The required test report shall be filed with the Compliance Authority as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Compliance Authority 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 information as specified in Rule 62-297.310(<u>\$10</u>)(c), F.A.C. [Permit No. 0250348-011-AC/PSD-FL-006G, Specific Condition A.24]
- 28. To eliminate redundant language, Specific Condition A.50 (Segregated Solid Waste Recordkeeping), paragraph **a** has been revised as follows:
 - a Each segregated load of non-MSW materials, subject to the percentage weight limitations of Specific Condition A.7 of this subsection, 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 and recorded using the facility truck scale.

- 29. To reflect that the auxiliary boilers for each MWC are subject to 40 CFR 60, Subpart Dc Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, Specific Condition A.51 has been added as follows:
 - A.51. <u>Auxiliary Burner Fuel Recordkeeping</u>. The permittee shall record and maintain records of the amount of each fuel combusted in the auxiliary boilers during each operating day. Alternatively, because the auxiliary boilers combust fuels not subject to an emission standard in 40 CFR 60, Subpart Dc, the permittee may elect to record and maintain records of the amount of each fuel combusted during each calendar month. These records shall be maintained by the permittee for a period of 5 years following the date of such record. [Rule 62-213.440(1)b.2., F.A.C.; and, 40 CFR 60.48c(g)(1), (2) & (i)]
- 30. Specific Condition A.53 required annual reporting of actual emissions for the 2013 through 2017 calendar years. This reporting requirement has been met and therefore deleted as follows:

A.53. <u>Actual NO_x Emissions Reporting</u>. Permit No. 0250348-011-AC (PSD-FL-006G) was based on a preliminary analysis that switching from daily/weekly waste throughput limitations coupled with a 24hour (180,000 lb/hour) steam flow limit to a 4-hour (198,000 lb/hour) steam flow limit would not result in an emission increase of 40 tons/year or more of NO_x.

- a. The permittee shall monitor the emissions of NO_x emitted by the four MWC; and, using the CEMS information available, calculate and maintain a record of the annual emissions, in tons/year on a calendar year basis, for a period of 5 years following resumption of regular operations after final issuance of permit No. 0250348 011 AC (PSD-FL-006G) (i.e., Calendar years 2013 2017). Emissions shall be computed in accordance with the provisions in Rule 62-210.370, F.A.C., which are provided in Appendix TV of this permit.
- b. The permittee shall report to the Department within 60 days after the end of each calendar year during the 5-year period (i.e., calendar years 2014-2018) setting out the unit's annual emissions during the calendar year that preceded submission of the report. The report shall contain the following: (1) The name, address and telephone number of the owner or operator of the major stationary source;
 - (2) The annual emissions as calculated pursuant to the provisions of 62-210.370, F.A.C., which are provided in Appendix C of this permit;
 - (3) If the emissions are greater than 1,296 tons/year, an explanation as to why there a difference from baseline actualemissions (1,257 tons/year);
 - (4) Information related to the use of the SNCR to abate possible increase due to operation at higher steam flow rates; and
 - (5) Any other information that the owner or operator wishes to include in the report.
- b. The information required to be documented and maintained pursuant to subparagraphs 62-

212.300(1)(e)1 and 2, F.A.C., shall be submitted to the Department, which shall make it available for review to the general public.

[Rules 62-212.300(1)(e) & 62-210.370, F.A.C.; and, Permit No. 0250348-011-AC (PSD-FL-006G), Specific Condition A.27.]

Subsection B Changes

31. Informational language regarding waste handling operations from the application has been incorporated into the EU description. Language regarding the applicability of Compliance Assurance Monitoring (CAM) has been removed since the EUs in this subsection are not subject to CAM, and CAM applicability is addressed in the "PRIMARY REGULATORY REQUIREMENTS" section of this statement of basis. The EU description has been revised as follows:

Emissions Unit 6 is a processing activity of receiving, handling and converting of MSW into RDF and saleable extractables, such as metals and glass. This unit was designed to process RDF at a rate of 3,000 tons per day (TPD). Garbage is transported into a tipping/receiving building where processible materials are sent to a garbage processing line. Non-processible materials received are transported to an offsite landfill. The garbage processing line consists of 2 primary trommels, 2 secondary trommels, 2 shredders, a magnet and a

ferrous separator. As garbage passes through the trommels and shredders, ferrous materials are separated and transported to ferrous processing operations followed by onsite storage or transportation offsite. Non-processible materials are also separated during processing and transported to an offsite landfill. PM from the primary and trommels are controlled by two process dust collection baghouses (consisting of 4 dust collectors for the primary trommels and 6 dust collectors for the secondary trommels). PM from the shredders are controlled by 2 dust collection baghouses consisting of a cyclone and 2 dust collectors. The total flow rate through the garbage processing line dust collector baghouses is 106,000 acfm.

Emissions Unit 7 is an existing bulky waste processing system that was modified into a biomass fuel preparation system and is designed to process up to 400,000 tons/year of the bulky waste into biomass, which will be transported off-site for use in biomass-fired cogeneration units or combusted on-site. Yard waste, tires and commercial/light industry trash are transported into a tipping/receiving building where processible materials are sent to a trash processing building. Non-processible materials received are transported to an offsite landfill. The trash processing line consists of 3 shredders, conveyors, 3 primary magnets, 3 secondary magnets and biomass processing. Ferrous materials that are separated by the magnets are transported to ferrous processing operations followed by onsite storage or transportation offsite. PM from the shredders, conveyors and magnets are controlled by 2 dust collection baghouses consisting of 4 dust collectors for the shredders and conveyors and 9 dust collectors for the magnets. Biomass processing operations are controlled by 2 dust collectors for the magnets is 113,000 acfm.

<u>Processed garbage and trash from Units 6 and 7, which become RDF, and shredded tires are transported to a fuel storage building followed by transportation to Units 1 through 4.</u>

{Permitting note: Emission<mark>s</mark> Units <u>00</u>6 and <u>00</u>7 each are minor EUs regulated under Rule 62-210.300, F.A.C. – Permits Required; and Permit No. 0250348-011-AC/PSD-FL-006G.}

<mark>Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule</mark> does not apply to the biomass processing facility silo's baghouse.

32. Because the EUs in this subsection are subject to only one Specific Condition with emission limiting standards, the language under <u>Emission Limitations and Standards</u> has been corrected as follows:

Unless otherwise specified, the averaging times for Specific Conditions B.2 is based on the specified averaging time of the applicable test method.

- 33. The rule citation in Specific Condition B.4 (Excess Emissions Prohibited) has been changed from Rule 62-210.700(4), F.A.C. to Rule 62-210.700(1), F.A.C., to reflect the current version of the Florida Administrative Code.
- 34. To reflect the current Title V air operation permit template, Specific Condition **B.5** has been added as follows:
 - **B.5.** <u>Test Methods</u>. <u>When required, tests shall be performed in accordance with the following reference</u> <u>methods</u>:

<u>Method</u>	Description of Method and Comments		
<u>9</u>	Visual Determination of the Opacity of Emissions from Stationary Sources		
The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-			
204.800, F.A.C. No other methods may be used unless prior written approval is received from the			
Department. [Rule 62-204.800, F.A.C.; and, Permit No. 0250348-011-AC/PSD-FL-006G, Specific			
Condition B.5]			

Subsection C Changes

35. Informational language regarding ash handling and storage from the application has been incorporated into the EU description. Language regarding the applicability of Compliance Assurance Monitoring (CAM) has

been removed since EU No. 008 (Ash Building and Handling System/Ash Storage Silo with Baghouse) is not subject to CAM, and CAM applicability is addressed in the "**PRIMARY REGULATORY REQUIREMENTS**" section of this statement of basis. Regulatory language in the accompanying permitting note has been clarified. The EU description has been revised as follows:

Fly ash collected by the fabric filters is conveyed to the fly ash silo, fly ash conditioner and to the ash transfer building, where it is combined with bottom ash from the boilers. The combined ash is then conveyed to the ash storage building. The ash handling system is enclosed to decrease the potential for fugitive emissions. The bottom ash is quenched and wetted before being conveyed to the ash transfer building. The fly ash is wetted in the fly ash conditioner prior to being conveyed to the ash transfer building. Ferrous materials and aluminum in the ash is recovered and transported to a storage bunker before ultimately being transported to the ferrous processing operations. Ash is stored on an onsite ash monofill. PM emissions from the fly ash silo are controlled by a small fabric filter with a maximum air throughput rate of 2,500 acfm.

{Permitting Note: These emissions units are regulated under Rule 62-204.800(9)(b), F.A.C., which adopts emissions standards and requirements incorporates provisions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994 and 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. Subpart Cb, cross references conditions (applicable requirements) that are contained in the NSPS 40 CFR 60, Subpart Eb. for the ash handling activities are specified in 40 CFR 60.55b.}

<mark>Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule</mark> d<mark>oes not apply to the ash storage silo's baghouse.</mark>

The following specific conditions apply to the emissions units listed above:

36. To reflect permit subsection nomenclature in Permit No. 0250348-011-AC/PSD-FL-006G, the citation in Specific Condition C.2 (Ash Silo) has been corrected as follows:

[Permit No. 0250348-011-AC/PSD-FL-006G, <u>Section 2.</u> Specific Condition H.8.]

- 37. Obsolete language regarding initial performance testing has been removed from Specific Condition C.3 (Fugitive Ash Emissions) and the citation has been clarified as follows:
 - C.3. <u>Fugitive Ash Emissions</u>.
 - 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 No owner or operator of an affected facility shall cause to be discharged to the atmosphere VE of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5% of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in Specific Condition C.10, except as provided in paragraphs C.3.b and C.3.c.
 - b. The emission limit specified in paragraph C.3.a does not cover VE discharged inside buildings or enclosures of ash conveying systems; however, the emission limit specified in paragraph C.3.a does cover VE discharged to the atmosphere from buildings or enclosures of ash conveying systems.
 - c. The provisions of paragraph **C.3.a** do not apply during maintenance and repair of ash conveying systems.

[Rule 62-204.800(9)(b)6., F.A.C., implementing (which references 40 CFR 60.55b)]

- The rule citation in Specific Condition C.6 (Excess Emissions Prohibited) has been changed from Rule 62-210.700(4), F.A.C. to Rule 62-210.700(1), F.A.C., to reflect the current version of the Florida Administrative Code.
- 39. To reflect current Title V air operation permit format standards, Specific Condition C.7 has been added as follows:

C.7. <u>Test Methods</u>. <u>When required, tests shall be performed in accordance with the following reference</u> <u>methods</u>:

<u>Method</u>	Description of Method and Comments	
<u>22</u>	<u>Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions</u> from Flares	
The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-		
<u>204.800, F</u>	A.C. No other methods may be used unless prior written approval is received from the	
Departmer	nt. [Rule 62-204.800, F.A.C.]	

- 40. To accurately reflect regulatory language in Rule 62-204.800(9)(b)6., F.A.C. and 40 CFR 60.58b(k), Specific Condition C.9 has been replaced with Specific Condition C.10 as follows:
 - C.9. <u>Fugitive Ash</u>. EPA Reference Method 22 shall be used for determining compliance with the fugitive ash emission limit from 40 CFR 60.55b specified in Specific Condition C.3. [Rule 62-204.800(9)(b)6., F.A.C.]
 - C.10. Fugitive Ash VE Test Procedure. The procedures specified in paragraphs C.10.a through C.10.c shall be used for determining compliance with the fugitive ash emission limit under Specific Condition C.3.
 - a. <u>The EPA Reference Method 22 shall be used for determining compliance with the fugitive ash</u> <u>emission limit under Specific Condition C.3</u>. <u>The minimum observation time shall be a series of</u> <u>three 1-hour observations</u>. <u>The observation period shall include times when the facility is transferring</u> <u>ash from the MWC unit to the area where ash is stored or loaded into containers or trucks</u>.
 - b. <u>The average duration of VE per hour shall be calculated from the three 1-hour observations. The</u> <u>average shall be used to determine compliance with Specific Condition C.3.</u>
 - c. <u>The owner or operator shall conduct a performance test for fugitive ash emissions on an annual basis</u> (no more than 12 calendar months following the previous performance test). [Rule 62-204.800(9)(b)7., F.A.C., implementing, 40 CFR 60.58b(k)]
- 41. To reflect the repeal of Rule 62-297.401, F.A.C., Specific Condition C.11 has been deleted as follows:

C.11. <u>VE</u>. EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A. [Rule 62-297.401, F.A.C.]

- 42. Specific Condition C.12 required annual visible emissions (VE) compliance testing using EPA Method 9, pursuant to Rule 62-297.310, F.A.C. Pursuant to Rule 62-297.310(1), F.A.C., the general requirements in Rule 62-297.310, F.A.C. shall be used for emissions tests for compliance with air pollution emission-limiting standards, "Unless otherwise stated in a specific rule, permit, or other order...". Because Rule 62-204.800(9)(b)6., F.A.C. and 40 CFR 60.58b(k) otherwise state that compliance with the VE limit in 40 CFR 60.55b shall be demonstrated by conducting an annual VE testing using EPA Method 22, Rule 62-297.310, F.A.C. does not apply. Therefore, Specific Condition C.12 has been removed as follows:
 - C.12. <u>Annual Tests Required</u>. During each calendar year (January 1^{et} to December 31^{et}), each ash handling baghouse and/or storage silo that emits directly to the atmosphere shall be tested using EPA Method 9 for a minimum of 30 minutes to demonstrate compliance with the opacity standard in Specific Condition C.2. and each source of fugitive emissions from ash handling activities shall be tested using EPA Method 22 for a maximum of 3 hours to demonstrate compliance with the visible emissions standard in Specific Condition C.3. [Rule 62-297.310(8)(a), F.A.C.]

Subsection D Changes

43. Informational language regarding the lime storage silos from the application has been incorporated into the EU description. Language regarding the applicability of CAM has been removed since EU No. 009 (Two Lime Storage Silos each with a Baghouse – Unit No. 9) is not subject to CAM, and CAM applicability is addressed in the "**PRIMARY REGULATORY REQUIREMENTS**" section of this statement of basis.

Regulatory language in the accompanying permitting note has been corrected. The EU description has been revised as follows:

Lime used in the SDAs for the MWC is stored in two silos. Pebble lime is delivered in tank trucks and pneumatically offloaded into the lime storage silos. Lime from the silos is fed to a slaker where water is added to slake the lime. Insoluble grit from the lime slurry is collected and removed for disposal. The lime

emissions from each silo are controlled by a baghouse.

{*Permitting Note: Emissions Unit* <u>00</u>9 *is a minor emissions unit regulated under Rule* 62-210.300, F.A.C., *Permits Required.*}

<mark>Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule</mark> does not apply to the lime storage silos' baghouses.

44. To reflect permit subsection nomenclature in Permit No. 0250348-011-AC/PSD-FL-006G, the citation in Specific Condition **D.2** (Visible Emissions) has been corrected as follows:

[Permit No. 0250348-011-AC/PSD-FL-006G, <u>Section 2.</u> Specific Condition H.8.]

- 45. The rule citation in Specific Condition **D.4** (Excess Emissions Prohibited) has been changed from Rule 62-210.700(4), F.A.C. to Rule 62-210.700(1), F.A.C., to reflect the current version of the Florida Administrative Code.
- 46. To reflect the current Title V air operation permit template, Specific Condition **D.5** has been added as follows:
 - **D.5.** <u>Test Methods. When required, tests shall be performed in accordance with the following reference</u> <u>methods:</u>

<u>Method</u>	Description of Method and Comments		
<mark>9</mark>	Visual Determination of the Opacity of Emissions from Stationary Sources		
The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-			
204.800, F.A.C. No other methods may be used unless prior written approval is received from the			
Department. [Ru	<u>ile 62-204.800, F.A.C.]</u>		

- 47. To reflect VE testing procedures in Rule 62-297.310(5)(b), F.A.C., Specific Condition **D.7** has been revised as follows:
 - D.7. <u>Visible Emissions Test Procedures</u>. EPA Method 9 shall be used to determine opacity compliance with the VE limit in Specific Condition D.2. The required minimum period of observation for a VE test shall be 30 minutes, except that for batch processes that are typically completed within less than the minimum observation period, the period of observation shall include each occurrence of the operation during the minimum observation period. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. pursuant to 40 CFR 60,

test. [Rule<mark>s <u>62-297.310(5)(b), F.A.C.</u> 62-4.070(3) & 62-213.440, F.A.C.; and, 40 CFR 60, Appendix A]</mark>

48. The citation following Specific Condition **D.8** (Annual Tests Required) has been clarified as follows:

[Rule 62-297.310(8)(a)<u>3.</u>, F.A.C.]

Subsection E Changes

49. Informational language regarding the activated carbon/mercury reactant storage silos from the application has been incorporated into the EU description. Language regarding the applicability of CAM has been removed since EU No. 010 (Activated Carbon (or Comparable Reactant) Storage Silos – Unit 10) is not subject to CAM, and CAM applicability is addressed in the "**PRIMARY REGULATORY REQUIREMENTS**"

section of this statement of basis. Regulatory language in the accompanying permitting note has been corrected. The EU description has been revised as follows:

Activated carbon or comparable reactant used in the injection system for the MWCs is stored in two silos. The activated carbon (or comparable reactant) will be utilized for the control of Hg and D/F. <u>Reagent from the silos along with water are fed into the slakers prior to injection into each MWC unit.</u> Emissions from each silo are controlled by a baghouse<u>, each with a maximum design exhaust flow rate</u> <u>of 2,000 dscfm</u>.

{*Permitting Notes: Emissions Unit* $\underline{0}$ 10 *is a minor emissions unit regulated under Rule* 62-210.300, *F.A.C., Permits Required; and, Rule* 62-212.400, *F.A.C.*}

<mark>Since the estimated potential uncontrolled PM emissions are below the major source threshold, the CAM rule</mark> does not apply to the activated carbon storage silos' baghouses.

50. To reflect permit subsection nomenclature in Permit No. 0250348-011-AC/PSD-FL-006G, the citation in Specific Condition **E.2** (Visible Emissions) has been corrected as follows:

[Permit No. 0250348-011-AC/PSD-FL-006G, Subsection E, Subsection 2, Specific Condition H.8.]

- 51. The rule citation in Specific Condition E.4 (Excess Emissions Prohibited) has been changed from Rule 62-210.700(4), F.A.C. to Rule 62-210.700(1), F.A.C., to reflect the current version of the Florida Administrative Code.
- 52. To reflect the current Title V air operation permit template, Specific Condition E.5 has been added as follows:
 - E.5. <u>Test Methods</u>. <u>When required, tests shall be performed in accordance with the following reference</u> <u>methods</u>:

<mark>Method</mark>	Description of Method and Comments		
9 Visual Determination of the Opacity of Emissions from Stationary Sources			
The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-			
204.800, F.A.C.	No other methods may be used unless prior written approval is received from the		
Department. [Ru	<u>lle 62-204.800, F.A.C.]</u>		

- 53. To reflect VE testing procedures in Rule 62-297.310(5)(b), F.A.C., Specific Condition E.7 has been revised as follows:
 - E.7. <u>Visible Emissions Testing Procedure</u>. EPA Method 9 shall be used to determine opacity compliance with the VE limit in Specific Condition E.2 pursuant to Rule 62-297.401, F.A.C., and 40 CFR 60, Appendix A. Compliance testing of the carbon silo loading operation shall be conducted within 90 days of completion of construction and initial operation; and, annually thereafter. <u>The required minimum period of observation for a VE test shall be 30 minutes</u>, except that for batch processes that are typically completed within less than the minimum observation period, the period of observation shall include each occurrence of the operation during the minimum observation period. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. [Rule 62-297.401_310(5)(b), F.A.C.]
- 54. The citation following Specific Condition E.8 (Annual Tests Required) has been clarified as follows:

[Rule 62-297.310(8)(a)<u>3.</u>, F.A.C.]

Subsection F Changes

55. The regulatory information in the permitting note following the EU description has been clarified as follows:

{Permitting Note: These emissions units, CI engines, are regulated under <u>40 CFR 60, Subpart A – General</u> Provisions and Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal <u>Combustion Engines, adopted by reference in Rules 62-204.800(8)(c) and (8)(b)82., F.A.C., respectively;</u> and, 40 CFR 63, Subpart A – General Provisions and Subpart ZZZ – NESHAP for Stationary RICE, adopted by reference in Rules 62-204.800(11)(d)1. and (b)82., F.A.C., respectively 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C., and 40 CFR 60, Subpart IIII,

NSPS. These RICE are not used for fire pumps. This permit section addresses "new" stationary CI RICE greater than or equal to 50 HP, with a displacement less than 10 l/c, that are located at a major source of HAP and that have been modified, reconstructed or commenced construction on or after 6/12/2006 and that have a post-2007 model year. In accordance with provisions of 40 CFR 63.6590(c)(6), meeting the requirements of 40 CFR 60, Subpart IIII satisfies compliance with the requirements of $\frac{40 CFR 63}{500}$, Subpart ZZZZ.

- 56. To reflect the regulatory language in 40 CFR 60, Subpart IIII, Specific Condition **F.2** has been revised as follows:
 - F.2. <u>Restricted Hours of Operation</u>. The permittee must operate each emissions unit according to the requirements of paragraphs F.2.a through F.2.c. In order for the engine to be considered an emergency stationary ICE, any operation other than emergency operation, maintenance and testing and operation in non-emergency situations for 50 hours per year, as described in paragraphs F.2.a through F.2.c. is prohibited. If the engine is not operated according to the requirements in the paragraphs F.2.a through F.2.c. this emissions unit will not be considered an emergency engine under 40 CFR 60, Subpart IIII and must meet all requirements for non-emergency engines. The following limitations apply individually to each engine:
 - a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 60.4211(f)(1)]
 - b. Maintenance and Testing. Each engine is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator Department for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 60.4211(f)(2)(i)]
 - c. Non-emergency Situations. These engines may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph **F.2.b**, above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]
- 57. To reflect revisions made to federal regulations in 40 CFR 60.4202 and 60.4205(b), Specific Conditions **F.3**, **F.4** and **F.5** have been revised as follows:
 - F.3. <u>Non-Methane Hydrocarbons (NMHC) Plus NO_x</u>. Emissions of NMHC Plus NO_x shall not exceed 4.7 gram/kilowatt-hour (gr/KW-hour). [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 1039, Table 3 to Appendix I 89.112 Table 2]
 - **F.4.** <u>Carbon Monoxide</u>. CO emissions shall not exceed 5.0 gt/KW-hour. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 1039, Table 3 to Appendix I 89.112 Table 2]
 - **F.5.** <u>Particulate Matter</u>. PM emissions shall not exceed 0.40 g[±]/KW-hour. [40 CFR 60.4205(b), 40 CFR 60.4202(a)(2) & 40 CFR 1039, Table 3 to Appendix I 89.112 Table 2]

58. The citation to Specific Condition **F.9** (Compliance Requirements Due to Loss of Certification) has been clarified as follows:

[40 CFR 60.4211(c) & (g)(1)]

59. The citation to Specific Condition **F.16** (40 CFR 60, Subpart A – General Provisions) has been clarified as follows:

[40 CFR 60.4218 <u>& Table 8</u>]

Subsection G Changes

60. Minor clarifications were made to the EU description and regulatory information in the permitting note. Redundant language has been removed. The EU description has been revised as follows:

This section of the permit addresses three "existing" stationary Reciprocating Internal Combustion Engines (RICE) used to drive emergency fire pumps placed at various locations on the site. The following table provides important information about these engines including onsite locations. These engines are regulated emissions units pursuant to 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. These emissions units operate only as emergency engines as defined in NESHAP Subpart ZZZZ. Link to Subpart ZZZZ

Location	Manufacturer Name	Brake Horsepower (hp)	Date of Construction	Model Number
Recycled Trash- Biomass Building	Clark/Detroit Diesel	165	1997	5034-8312
Cooling Tower	Clark/Detroit Diesel	165	1997	DDFR06FH8386V
Garbage Processing Building	Clark/Detroit Diesel	165	1998	5111433

Emissions Unit 013 includes the following engines:

{Permitting Note: These emissions units, compression ignition (CI) engines, are regulated under $\frac{40 \ CFR \ 63}{Subpart \ A - General Provisions and Subpart \ ZZZ - NESHAP for Stationary RICE, adopted by reference in Rules 62-204.800(11)(d) 1. and (b)82., F.A.C., respectively.$ $40 \ CFR \ 63, Subpart \ ZZZZ, NESHAP for Stationary RICE, adopted by reference in Rules 62-204.800(11)(d) 1. and (b)82., F.A.C., respectively.$ $40 \ CFR \ 63, Subpart \ ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. These RICE are used for fire pumps. This permit section addresses "existing" stationary CI RICE with a displacement of less than 10 liters per cylinder, that are located at a major source of HAP and that have not been modified, reconstructed or commenced construction on or after 6/12/2006. Therefore, they these RICE are not subject to NSPS 40 CFR 60, Subpart IIII.}$

- 61. To reflect the regulatory language in 40 CFR 63, Subpart ZZZZ, Specific Conditions **G.1** and **G.2** have been revised as follows:
 - G.1. <u>Restricted Hours of Operation</u>. <u>The permittee must operate each emissions unit according to the</u> requirements of paragraphs G.1.a through G.1.c. In order for the engine to be considered an emergency stationary RICE, any operation other than emergency operation, maintenance and testing and operation in non-emergency situations for 50 hours per year, as described in paragraphs G.1.a through G.1.c, is prohibited. If the engine is not operated according to the requirements in the paragraphs G.1.a through G.1.c, this emissions unit will not be considered an emergency engine under 40 CFR 63, Subpart ZZZZ</u>

<mark>and must meet all requirements for non-emergency engines.</mark> The following limitations apply individually to each engine:

- a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]
- b. *Maintenance and Testing*. Each engine is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i)]
- c. Non-emergency Situations. These engines may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]
- G.2. <u>Work or Management Practice Standards</u>. <u>The permittee must comply with the following</u> requirements:
 - a. *Oil.* Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6602 and Table 2c.1.a.]
 - b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first and replace as necessary. [40 CFR 63.6602 and Table 2c.1.b.]
 - c. *Hoses and Belts*. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6602 and Table 2c.1.c.]
 - d. *Operation and Maintenance*. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [40 CFR 63.6625(e), 63.6640(a) & Table 6.9.a.]
 - e. *Engine Startup*. During periods of startup the owner or operator must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]
 - f. Oil Analysis. The owner or operator has the option of utilizing an oil analysis program in order to extend the oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in paragraph G.2.a, above. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analyzis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i) & (j) and Table 2c, footnote 2]

- g. Alternative Work Practices. Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices. <u>Link to 40 CFR 63.6</u> [40 CFR 63, Subpart ZZZZ, Table 2c, footnote 3]
- 62. Because EU No. 013 consists of 3 emergency stationary engines and each engine is considered an affected source under 40 CFR 63, Subpart ZZZZ, Specific Condition **G.4** has been clarified as follows:
 - **G.4.** <u>Continuous Compliance</u>. Each <u>unit engine</u> shall be in compliance with the <u>emission limitations and</u> operating standards in this <u>sub</u>section at all times. [40 CFR 63.6605(a)]
- 63. To reflect current Title V air operation permit format standards, the citation to Specific Condition G.11 (40 CFR 63, Subpart A General Provisions) has been revised as follows:
 - [40 CFR 63.6645(a), 63.6665 & Table 8 to <u>40 CFR 63</u>, Subpart ZZZZ of Part 63]

Appendices Changes

- 64. To reflect the current Title V air operation permit template, Appendix A (Abbreviations, Acronyms, Citations and Identification Numbers) has been updated.
- 65. To reflect the reclassification of the 535 HP shredder engine from an insignificant EU to Unregulated EU No. 014 (Emergency Diesel Engine-Driven Generator for Shredder), a reference to the engine has been removed from Item No. 39 in Appendix I (List of Insignificant Emissions Units and/or Activities). Appendix U (List of Unregulated Emissions Units and/or Activities) has been added with EU No. 014 listed in this appendix.
- 66. Appendix I has been revised to reflect the List of Insignificant Activities submitted with this Title V air operation permit renewal application.
- 67. Appendix NESHAP, Subpart A and Appendix NESHAP, Subpart ZZZZ were added to the appendices to reflect the applicability of 40 CFR 60, Subpart A General Provisions and Subpart ZZZZ NESHAP for Stationary Reciprocating Internal Combustion Engines to emergency engines at this facility. Provisions in Subpart ZZZZ that were vacated by the courts were marked with green highlight within Appendix NESHAP, Subpart ZZZZ.
- 68. Because the State Plan for municipal waste combustors in Rule 62-204.800(9)(b), F.A.C. contains federally enforceable requirements incorporated by references from 40 CFR 60, Subparts Cb and Eb, this rule has been moved within the Appendices from a referenced attachment to a federally enforceable appendix and labeled as Appendix MWC Rule 62-204.800(9)(b), F.A.C. Municipal Waste Combustors.
- 69. Section 60.17 of Appendix NSPS, Subpart A has been revised to reflect the current version of 40 CFR 60, Subpart A General Provisions.
- 70. To reflect that the auxiliary boilers for EU Nos. 001-004 are subject to 40 CFR 60, Subpart Dc, Appendix NSPS, Subpart Dc has been added to the appendices.
- 71. Appendix NSPS, Subpart IIII has been revised to reflect the current version of 40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.
- 72. To reflect current regulations within the Florida Administrative Code, Appendix RR (Facility-Wide Reporting Requirements) has been updated from the version dated February 13, 2014 to the version dated August 8, 2019.
- 73. To reflect current regulations within the Florida Administrative Code, Appendix TR (Facility-Wide Testing Requirements) has been updated from the version dated February 13, 2014 to the version dated August 8, 2019.
- 74. An entry for this Title V air operation permit renewal has been added to Table H (Permit History).

- 75. The header for the attached NSPS, Subpart Cb has been revised to reflect the full title 40 CFR 60, Subpart Cb Emission Guidelines for Large Municipal Waste Combustors that are Constructed on or Before September 20, 1994.
- 76. The header for the attached NSPS, Subpart Eb has been revised to reflect the full title of 40 CFR 60, Subpart Eb Standards of Performance for Large Municipal Waste Combustors for Which Construction Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996.
- 77. To reflect the current Title V air operation permit template, Table 1 (Summary of Air Pollutant Standards and Terms) and Table 2 (Compliance Requirements) have been removed from the Referenced Attachments section of the appendices.

CONCLUSION

This project renews Title V air operation permit No. 0250348-012-AV, which was effective on April 4, 2017. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.