

June 30, 2003

**RECEIVED**

JUL 01 2003

Ms. Trina Vielhauer  
Bureau Chief  
Division of Air Regulation  
Department of Environmental Protection  
2600 Blair Stone Road  
MS 5505  
Tallahassee, Florida 32399-2400

BUREAU OF AIR REGULATION

Re: Lee County Solid Waste Energy Recovery Facility  
PPSA Supplemental Application No. 90-30SA1  
DEP ID No. 0710119; Permit No. 0710119-002-AC  
PSD Permit No. PSD-FL-151C; SIC No. 4953

Dear Ms. Vielhauer:

On behalf of Lee County, we are hereby submitting comments to the Florida Department of Environmental Protection ("Department") concerning the Revised Draft PSD Permit ("Draft Permit") for the construction of an additional municipal waste combustion unit at the existing Lee County Solid Waste Energy Recovery Facility ("Facility"). Most of our comments address typographical issues, rule citations in the Draft Permit, and other minor concerns. For ease of reference, we have marked these comments directly on the Draft Permit (issued June 12, 2003), which is attached hereto for the Department's review. We believe most of these comments are self-explanatory.

Some of these proposed changes are discussed by RTP Environmental Associates ("RTP") in the attached RTP memorandum dated June 27, 2003. Most of RTP's recommendations address the rule citations in the Draft Permit.

We have identified one other issue that warrants your attention. Specifically, we respectfully request for the Department to delete the note on page 9 of 28, at the end of the third paragraph, in the Revised Draft PSD Permit. The Department's note indicates that the permit does not "anticipate

or authorize" any ammonia plumes as a result of the operation of the third municipal waste combustion ("MWC") unit at the Facility.

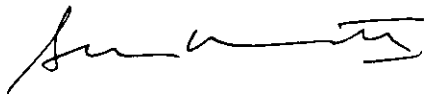
Lee County will use its best efforts to design and operate Unit No. 3 to minimize the potential for ammonia plumes. However, the County cannot guarantee that there will be no ammonia plumes as a result of the operation of the Selective Non-Catalytic Reduction ("SNCR") system at the Facility. Indeed, there may be plumes from time to time, especially during the initial operation of the Facility, when the County will be trying to identify the optimal operating parameters for the SNCR system.

Nonetheless, the County is working diligently to learn more about SNCR, flue gas recirculation, and other related issues before Unit No. 3 is designed. The County's Solid Waste Director Mr. Lindsey Sampson, and our chief municipal waste combustion engineer Mr. Amit Chattopadhyay, are scheduled to visit several MWC facilities in Europe during the upcoming weeks so that they can obtain first-hand information about the air pollution control systems being utilized in Europe. The County's representatives currently plan to inspect facilities utilizing the technologies employed by Martin, Seeghers, Von Roll, and Integrated Waste Technologies. The County hopes to learn from these European facilities so that emissions from Unit 3 can be minimized.

Please call me at (813) 248-6900 if you have any questions about the County's comments.

Very truly yours,

MALCOLM PIRNIE, INC.



Samuel M. Rosania, R.E.M.  
Associate

Enclosures

c: L. Sampson  
D. Dee  
D. Elias  
J. Treshler  
B. Bahor  
A. Chattopadhyay  
R. French

## MEMORANDUM

TO: Lindsey J. Sampson, David S. Dee, and Samuel M. Rosania

FROM: Donald F. Elias and William E. Corbin

DATE: June 27, 2003 **Revised for D.Dee/S.Rosania Comments**

SUBJ: Federal Rule References in Revised Draft Permit

---

RTP Environmental Associates, Inc. (RTP) reviewed the federal rule references in the Revised Draft Permit for the Lee County Energy Recovery Facility (LCERF) and found some errors. Nearly all of the errors relate to listing NSPS/EG requirements to which the proposed unit is not applicable because it is one of the first Subpart Eb facilities (i.e., many of the incorrect NSPS/EG requirements are applicable to MWC units subject to Subparts Cb or Ea).

First, the proposed unit is not subject to NSPS Subpart Db (40 CFR 60.40b et. seq.) because NSPS facilities (i.e., units) subject to Subpart Eb are categorically exempt (40 CFR 60.40b(h)):

*“(h) Affected facilities which meet the applicability requirements under subpart Eb (Standards of Performance for MWCs; §60.50b) are not subject to this subpart [i.e., Subpart Db].”*

Therefore, permit changes should be made to the following Section III Specific Conditions:

- a) B.8 – delete “40 CFR 60.44b,” from the rule applicability list shown in brackets [] at the end of the specific condition.
- b) B.9 – delete “, 40 CFR 60.41b and 40 CFR 60.44b(d)” from the rule applicability list shown in brackets [] at the end of the specific condition. Also, all of the specific condition except for the first sentence and the “{Note: ...}” must be deleted since the new unit is categorically exempt from the Subpart Db limits.
- c) B.19 – delete “and 40 CFR 60.44b(d)” from the rule applicability list shown in brackets [] at the end of the specific condition. Also, all of the specific condition B.19(d) must be deleted since the new unit is categorically exempt from the Subpart Db limits.
- d) B.25 – delete “40 CFR 60.49b(a)(1) & (3) and” from the rule applicability list shown in brackets [] at the end of the specific condition.
- e) Also, Subpart Db should be removed from the list of applicable regulations in Section 5 of the Technical Evaluation on page 21.

Second, the proposed unit is not subject to the NSPS Subpart E (40 CFR 60.50 et. seq.) because NSPS facilities (i.e., units) subject to Subpart Eb are categorically exempt (40 CFR 60.50b(c)):

*“(c) An affected facility to which this subpart [i.e., Subpart Eb] applies is not subject to subpart E or Ea of this part.”*

Therefore, permit changes should be made to the following Section III Specific Conditions:

- a) B.15 – delete “, and 40 CFR 60.53(a)” from the rule applicability list shown in brackets [] at the end of the specific condition.
- b) Also, Subpart E should be removed from the list of applicable regulations in Section 5 of the Technical Evaluation on page 21.

Third, the proposed unit is not subject to the Emissions Guidelines at NSPS Subpart Cb (40 CFR 60.40b et. seq.) since Subpart Cb is only applicable to "*Large MWCs That are Constructed On or Before September 20, 1994.*" While many Subpart Eb requirements are applicable to Subpart Cb facilities because they are included by reference, the reverse is not true. Therefore, permit changes should be made to the following Section III Specific Conditions:

- a) B.2 – delete "60.31b, 60.38b," from the rule applicability list shown in brackets [] at the end of the specific condition.
- b) B.3 – delete "60.31b; 60.38b;" from the rule applicability list shown in brackets [] at the end of the specific condition.
- c) B.10(2) – change the phrase "40 CFR 60.38b(b)" to "40 CFR 60.38b(b) and 40 CFR 60.58b(g)(5)(iii) and (6)".
- d) B.11 – delete "40 CFR 60.38b," from the rule applicability list shown in brackets [] at the end of the specific condition.
- e) B.13 – delete "40 CFR 60.38 and" from the rule applicability list shown in brackets [] at the end of the specific condition (was likely meant to be 60.38b).
- f) B.14 – delete "60.31b; 60.38b;" from the rule applicability list shown in brackets [] at the end of the specific condition.
- g) B.16 – delete "40 CFR 60.38b," from the rule applicability list shown in brackets [] at the end of the specific condition.
- h) B.27 – Since the condition is copied from Cb, there are numerous corrections needed to the text due to the differences in applicability dates between Cb and Eb regulations. Attached are our proposed changes.
- i) C.1 – delete "40 CFR 60.36b and" from the rule applicability list shown in brackets [] at the end of the specific condition.
- j) C.2 – delete "40 CFR 60.36b and" from the rule applicability list shown in brackets [] at the end of the specific condition.

Finally, there are two typographical errors related to the federal rule citations in the following Section III Specific Conditions:

- a) B.11 – change "SO<sub>2</sub> and NO<sub>x</sub>" to "SO<sub>2</sub>, NO<sub>x</sub>, and CO" in the middle of the condition since the federal rules cited in the following line are for all three pollutants.
- b) D.7 – change "40 CFR 53b(b)" to "40 CFR 60.53b(b)" in the rule applicability list shown in brackets [] at the end of the specific condition.

Please include these changes in the comments you are compiling on the Revised Draft PSD Permit. If you have any questions, please feel free to contact us at 732/968-9600.

cc: Brian Bahor/Amit Chattopadhyay/MPLC Project File

## OPERATOR TRAINING AND CERTIFICATION

### B.27 Requirements

- (a) One of the following persons must be on duty at the facility at any time during which the MWC unit is operating: a fully certified chief facility operator or shift supervisor; or a provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam according to the schedule specified in Specific Condition III.B.27(b). This requirement shall take effect 6 months after the date of startup of the unit. If this person must leave the facility during his or her operating shift, a ~~professionally~~ provisionally certified control room operator who is on site may fulfill this requirement. A qualified, provisionally certified control room operator may temporarily replace the fully certified shift supervisor during specific periods when the certified shift supervisor is excused from work due to vacation or illness and after notification to the Department's South District Office. ~~[40 CFR 60.39b(e)(4)(ii) and 40 CFR 60.54b(c)]~~
- (b) No later than the date 6 months after the date of startup of the unit, ~~e~~Each chief facility operator and shift supervisor ~~must shall~~ obtain and maintain a current provisional operator certification and be scheduled for a full certification exam, or receive full certification, ~~with from~~ either the ASME or an ~~equivalent s~~State-approved certification program ~~before the date that person assumes responsibility for operation of the facility~~. ~~[40 CFR 60.39b(e)(4)(ii) and 40 CFR 60.54b(a) and (b)]~~
- (c) Each chief facility operator, shift supervisor, and control room operator must complete the EPA or ~~S~~state approved MWC operator training course no later than the date 6 months after the date of startup of the unit before the date that person assumes responsibility for operation of the facility. The operator training course requirements of 40 CFR 60.54b(d) do not apply to chief facility operators, shift supervisors and control room operators who have obtained full ASME certification on or before the date of State plan approval (November 13, 1997). ~~[40 CFR 60.39b(e)(4)(iii)(A).]~~ The owner or operator may request that the Department waive the operator training course requirements specified in 40 CFR 60.54b(d) for chief facility operators, shift supervisors and control room operators who have obtained provisional ASME certification on or before the date of State plan approval (November 13, 1997) ~~[40 CFR 60.39b(e)(4)(iii)(B)].~~ ~~[40 CFR 60.39b(e)(4) and 40 CFR 60.54b(d)]~~
- (d) A site-specific operating manual ~~must shall~~ be developed and updated on an annual basis ~~{which meets the requirements of 40 CFR 60.54b(e)}~~. A training program ~~must shall~~ be established to review the operating manual with each person who has responsibilities affecting the operation of the MWC including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person must undergo initial training no later than the date 6 months after the date of startup of the unit or the date prior to before the day that person assumes responsibilities affecting operation of the facility, whichever is later, and annually thereafter pursuant to 40 CFR 60.54b(f). The operating manual must be kept in a readily accessible location for all persons required to undergo training. ~~[40 CFR 60.35b and 40 CFR 60.54b(e), & (f), and (g)]~~

**PERMITTEE:**

Lee County  
Lee County Resource Recovery Facility  
P.O. Box 398  
Fort Myers, Florida 33902

<b>ID No.</b>	0710119
<b>Permit No.</b>	0710119-002-AC
<b>PSD No.</b>	PSD-FL-151C
<b>SIC No.</b>	4953
<b>Expires:</b>	December 31, 2006

*Authorized Representative:*  
Mr. Lindsey Sampson  
Director, Solid Waste Division

**PROJECT AND LOCATION:**

This permit allows the applicant to construct a third municipal waste combustor (MWC), along with a lime storage silo and associated appurtenances. The new MWC will be constructed at the existing municipal waste combustion facility. The municipal waste combustion unit will not exceed a nominal tonnage capacity of 660 TPD and maximum heat input of 291.5 million Btu per hour (MMBtu/hr).

The facility is located at 10500 Buckingham Rd., Fort Myers, Lee County. The UTM coordinates of this facility are Zone 17; 424.21 km E; 2945.7 km N.

**STATEMENT OF BASIS:**

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 and Subpart Eb of the NSPS of 40CFR60. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

**Attached appendix is part of this permit:**

Appendix GC    Construction Permit General Conditions  
Appendix BD    BACT Determination

---

Howard L. Rhodes, Director  
Division of Air Resources  
Management

# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION I. FACILITY INFORMATION

### SUBSECTION A. FACILITY DESCRIPTION

The existing facility consists of a municipal waste combustion facility with two mass burn municipal waste combustion (MWC) units. The facility currently has a capacity of 660 tons/day per unit for a total of 1,320 tons per day of solid waste fuel with a nominal HHV of 5,000 Btu/lb. This is equal to a maximum heat input of 275 MMBtu/hour per unit, for a total heat input not to exceed 550 MMBtu/hr. The facility converts solid waste into saleable energy. It produces up to 40 MW of electricity. The facility is self-sufficient and operates on a small portion of the power it generates. The remaining electricity is sold to an electric utility market. The facility is owned by Lee County, and was designed, built and is currently operated by Ogden-Martin Systems of Lee, Inc. (although the corporate name changed to Covanta Energy Corporation, effective March 14, 2001). The Lee County Resource Recovery Facility began operation in August 1994.

The facility's existing mass burn combustion system incorporates the technology of German-based Martin GmbH. The waterwall furnaces are equipped with Martin® reverse-reciprocating grates and ash handling systems. Waste is combusted and reduced to an inert ash residue. Each existing unit is equipped with a slaked lime scrubber followed by a baghouse, an SNCR system for reduction of NO<sub>x</sub> emissions, and a carbon injection system for control of mercury emissions.

This permit allows the applicant to construct a third MWC unit, which is substantially similar to the existing two units, albeit with additional controls as required in order to comply with the more stringent NSPS and BACT limits. The new municipal waste combustion unit will not exceed a nominal tonnage capacity of 660 TPD and maximum heat input of 291.5 MMBtu/hr. Accordingly, as a large MWC, this unit is subject to the requirements of 40 CFR 60, Subpart Eb. Dry flue gas scrubbers, baghouse, SNCR, and carbon injection will be utilized to control emissions from the combustor. Flue Gas Recirculation (FGR) is authorized but not required. The existing facility also contains existing lime silo and ash handling systems, which will be impacted via increased throughput of the new unit. An additional lime silo will be constructed, which stores pebble lime, used to make lime slurry.

### SUBSECTION B. REGULATORY CLASSIFICATION

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

---

Project: Lee County Resource Recovery Facility  
Facility ID No. 0710119  
SIC: 4953

Lee County  
Fort Myers, Florida

# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION I. FACILITY INFORMATION

Based on the initial Title V permit application received June 17, 1996, this facility is a major source of hazardous air pollutants (HAPs).

### SUBSECTION C. PERMIT SCHEDULE:

- June ~~13XX~~, 2003 notice of intent published in Ft. Myers News-Press
- June 12, 2003 issued revised notice of intent to issue permit
- April 14, 2003 notice of intent published in Ft. Myers News-Press
- April 4, 2003 issued notice of intent to issue permit
- February 28, 2003 application deemed complete

### SUBSECTION D. RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received (Bureau of Air Regulation) on November 12, 2002
- Department's Request For Additional Information dated December 11, 2002
- Applicant's response to Department's Request and related information submitted by Lee County and its consultants (various dates)



# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

---

### SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-01440114. All documents related to reports, tests, and notifications should be submitted to the Department's South District Office (DEPSD), 2295 Victoria Avenue, Suite 364, Fort Myers, Florida 33902 and phone number 239/332-6975.
- A.2 General Conditions: The owner and operator are subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [**Rule 62-4.160, F.A.C.**]
- A.3 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.4 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [**Rule 62-210.900, F.A.C.**]
- A.5 Application for Title V Permit: An application for a modification of the Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation and a copy to DEPSD. [**Chapter 62-213, F.A.C.**]
- A.6 New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.

**SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS**

---

**SUBSECTION B. CONSTRUCTION REQUIREMENTS**

B.1 Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit (s) shall be in accordance with the capacities and specifications stated in the application. The unit is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, ~~62-103~~, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Section 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations [Rule 62-204.800, F.A.C.]. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations [Rule 62-210.300, F.A.C.]

**SUBSECTION C. OPERATIONAL REQUIREMENTS**

C.1 Changes/Modifications: The owner or operator shall submit to the Department's Bureau of Air Regulation, for review any changes in, or modifications to: the method of operation; process or pollution control equipment; increase in hours of operation; equipment capacities; or any change which would result in an increase in potential/actual short term or long term emissions. Depending on the size and scope of the modification, it may be necessary to submit an application for, and obtain, an air construction permit prior to making the desired change. [Rule 62-4.030, 62-210.300 and 62-4.070(3), F.A.C.]

C.2 Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEPSD as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

C.3 Operating Procedures shall include good combustion practices and proper training and certification of all operators. The good combustion practices shall meet the guidelines established in 40 CFR 60, Subpart Eb and procedures as established by recognized industry standards. All operators (including supervisors) of air pollution control device shall be properly trained and certified in plant specific equipment. A list of all such certified personnel shall be submitted to the DEPSD. Department's staff shall be given notice of any formal training sessions related to operation and maintenance of air pollution control devices. [Rule 62-204.800(8), F.A.C. and 62-4.070 (3), F.A.C.]

**SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS**

---

C.4 Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Air Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in **Rule 62-297.620, F.A.C.**

**SUBSECTION D. MONITORING OF OPERATIONS**

Determination of Process Variables

D.1 The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as heat input, when such data is needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

D.2 Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [**Rule 62-297.310(5), F.A.C.**]

**SUBSECTION E. OTHER REQUIREMENTS**

E.1 Waste Disposal: The owner or operator shall treat, store, and dispose of all liquid, solid, and hazardous wastes in accordance with all applicable Federal, State, and Local regulations. This air pollution permit does not relieve the permittee from securing any other types of required permits, licenses, or certifications.

# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

### SUBSECTION A. 40 CFR 60, NSPS, GENERAL PROVISIONS

The following emission limitations shall apply to the affected emissions unit after compliance testing is completed. As used in this permit, initial operations shall mean after the initial compliance testing is complete. This section addresses the following emissions unit:

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION	SYSTEM
-006	660 Tons per day nominal MSW Incinerator	MSW Unit 3

The affected emissions units shall comply with all applicable requirements of 40 CFR 60, General Provisions, Subpart A.

- A.1 [40 CFR 60.7, Notification and record keeping]
- A.2 [40 CFR 60.8, Performance tests]
- A.3 [40 CFR 60.11, Compliance with standards and maintenance requirements]
- A.4 [40 CFR 60.12, Circumvention]
- A.5 [40 CFR 60.13, Monitoring requirements]
- A.6 [40 CFR 60.19, General notification and reporting requirements]

The affected emissions units shall comply with all applicable provisions of the 40 CFR 60, Subpart Eb-Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced After September 20, 1994 or for Which Modification or Reconstruction is Commenced After June 19, 1996. In addition the emissions unit shall also comply with all the conditions listed in Section II (Emissions Unit General Requirements) of this permit.

**[Rule 62-4.070(3), 62-204.800(8) and 62-296,-416, F.A.C.]**

AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

**SUBSECTION B. SPECIFIC CONDITIONS:**

The following specific conditions apply to the following emissions unit.

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
-006	660 Tons per day nominal MSW Incinerator

**OPERATIONAL REQUIREMENTS**

B.1 The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.  
[Rule 62-4.070(3), F.A.C.]

B.2 Process Operating Rates: The municipal waste combustor unit (MWC) shall have a nominal rated capacity of 660 tons of waste per day. Maximum heat input shall be 291.5 MMBtu/hr.  
[Rules 62-4.0730(3) and 62-204.800(8), F.A.C., 40 CFR 60.31b, 60.38b, 60.51b, and 60.58b(j)]

B.3 Load Level : *Unit load* means the steam load of the municipal waste combustor (MWC) measured as specified in 40 CFR 60.58b(i)(6). Compliance with load level requirements shall be determined by a steam meter using ASME Power Test Code for Steam Generating Units, Power Test Code 4.1, section 4 (see 40 CFR 60.58b(i)(6)(ii) & (iii)). The MWC unit shall not operate at a load level greater than 110 percent of the unit's *maximum demonstrated unit load* based on 4-hour block averaged measurements of steam flow. The maximum demonstrated unit load is the highest arithmetic averaged measurement of steam flow recorded for four consecutive hours during the most recent dioxin/furan performance stack test in which compliance with the dioxin/furan emission limit was achieved. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b) and condition D.7 of this permit. [Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i) (6)&(8)]

B.4 Emission Control Equipment

*Particulate Matter*

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

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

*Spray Dryer Scrubber*

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

*Carbon Injection*

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

*Selective Non-Catalytic Reduction System*

The unit shall be equipped with a selective non-catalytic reduction system designed, constructed and operated so as not to exceed a maximum NO<sub>x</sub> emission rate of 150 ppmvd corrected to 7 percent O<sub>2</sub> on a 24-hour block arithmetic mean (midnight to midnight) as well as 110 ppmvd corrected to 7 percent O<sub>2</sub> on a 12-month rolling average and designed to meet 15 ppmvd @ 7% O<sub>2</sub> ammonia slip on a 24 hour average. Notwithstanding these requirements, the unit shall be granted a period of 12 calendar months from the initial compliance test of the MWC, in order to meet the 110 ppmvd NO<sub>x</sub> and the higher ammonia slip limits identified within this permit. During this initial calendar year of operation, the 12-month rolling average limit for NO<sub>x</sub> shall be 140 ppmvd @ 7% O<sub>2</sub> based upon the actual number of calendar months since initial operation. For each month after the initial calendar year of operation, the 12-month rolling average limitation shall be reduced by 2.5 ppmvd @ 7% O<sub>2</sub> until reaching the BACT limit of 110 ppmvd @ 7% O<sub>2</sub> on a 12-month rolling average. The ammonia slip limit shall be 50 ppmvd @ 7% O<sub>2</sub> for the first 12 calendar months from initial operation and shall be adjusted as set forth in paragraph B.10 (5), below. ~~Note: this permit does not anticipate nor authorize ammonia plumes.~~

Within 30 days after it becomes available, but before commencement of construction of the air pollution control equipment, the Permittee shall submit to the DEPSD copies of technical data pertaining to the selected emission control systems. This data should include, but not be limited to the manufacturer's guarantees, design inlet and outlet emission rates, and major design parameters. [Rule 62-4.070(3), F.A.C.]

- B.5 Stack Height: The height of the boiler exhaust stack shall not be less than 276 feet above grade (271 feet for structural stack plus 5 feet for flue).
- B.6 Fuels: The primary fuel for the unit is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). [Rule 62-4.070(3), F.A.C., and request of applicant]

AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

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

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

Further, the facility shall not knowingly burn:

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

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

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

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

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

- (a) comply with good combustion operating practices in accordance with 40 CFR 60.53b;

## AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

### SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

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

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

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

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

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

B.6.6 Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the unit. The total quantity of waste tires received as segregated loads and burned at the unit shall not exceed 3%, by weight, of the unit's total fuel. Compliance with this limitation shall be determined by using a calendar monthly average in accordance with specific condition B.24 below.

B.6.7 Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the unit (i.e. the following are authorized fuels that



**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the unit shall not exceed 5% by weight of the unit's total fuel. Compliance with this limitation shall be determined by using a calendar monthly average in accordance with specific condition B.24 below.

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

**B.7 Startup/Shutdown/Malfunctions**

- (a) Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case

## AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

### SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. As referenced below, and provided for by the NSPS, the Department specifically authorizes longer durations.

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

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

**[Rule 62-210.700, and 62-204.800(8), F.A.C., and 40 CFR 60.58b(a)(1)]**

# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

### EMISSION LIMITATIONS & STANDARDS

B.8 Emissions from the MWC unit shall not exceed the limits listed in the following table.  
**[BACT]**

Pollutant Name	Standard(s)	Lbs/hour	TPY
Particulate Matter (PM <sub>10</sub> )	20.6 mg/dscm, corrected to 7% O <sub>2</sub>	5.12	22.3
MWC Metals (PM)	20.6 mg/dscm, corrected to 7% O <sub>2</sub>	5.12	22.3
Sulfur Dioxide (SO <sub>2</sub> )	26 ppm, or 80% reduction, at 7% O <sub>2</sub> <sup>(1)</sup>	56.9	249.4
Sulfuric Acid Mist (SAM)	15 ppmvd @ 7 % O <sub>2</sub>	15.1	66.1
Nitrogen Oxides (NO <sub>x</sub> )	110 ppm@ 7% O <sub>2</sub> – 12-month rolling avg. 140 ppm @ 7% O <sub>2</sub> - 12-month rolling avg. * 150 ppm @ 7% O <sub>2</sub> – 24 hour average	70.8	289.4
Carbon Monoxide (CO)	80 ppm @ 7% O <sub>2</sub> – 12-mo rolling avg. 100 ppm @ 7% O <sub>2</sub> – 4 hr average	23.0 28.73	100.6
Mercury (Hg)	0.028 mg/dscm @ 7% O <sub>2</sub> or 85% reduction <sup>(1)</sup>	0.0168	0.0736
Visible Emissions (VE)	10 %, 6 minute average		
Lead (Pb)	0.2 mg/dscm, corrected to 7% O <sub>2</sub>	0.05	0.22
MWC Acid Gas (HCl)	25 ppm or 95% reduction @ 7% O <sub>2</sub> <sup>(1)</sup>	46.76	204.8
Hydrogen Fluoride (HF)	3.5 ppmvd @ 7% O <sub>2</sub>	0.718	3.145
Cadmium (Cd)	0.02 mg/dscm @ 7% O <sub>2</sub>	.005	0.022
Dioxin/Furan (PCDD/F)	13 ng/dscm, corrected to 7% O <sub>2</sub>	3.2 x 10 <sup>-6</sup>	1.4 x 10 <sup>-5</sup>
Ammonia	15-30 ppmvd @ 7% O <sub>2</sub> 50 ppmvd @ 7% O <sub>2</sub> *		

**Notes to table:**

\* - For the 12-month calendar period following initial operation only.

**Abbreviations**

ug/dscm: Micrograms per dry standard cubic meter

mg/dscm: Milligrams per dry standard cubic meter

ng/dscm: Nanograms per dry standard cubic meter

ppm: Part per million dry volume

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

Note (1) Whichever standard is less stringent.

**[40 CFR 60.44b, Rules 62-210.200, 62-2102.400 (BACT), 62-204.800(8) and 62-4.070(3), F.A.C., and request of applicant]**

B.9 Auxiliary Burners: Auxiliary burners shall be fired only with natural gas or propane. The annual capacity factor for natural gas or propane shall be limited to 10% or less. The annual capacity factor for natural gas and propane is the ratio between the heat input to the unit from natural gas and propane combined during a calendar year and the potential heat input to the unit had it been operated for 8,760 hours during a calendar year at the maximum steady state design heat input capacity. Monthly records shall be maintained of

# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

~~the amount of natural gas and propane used by the auxiliary burners and the equivalent heat input from natural gas and propane. On an annual basis (no later than 30 days after the end of the calendar year), a demonstration must be performed based on the monthly records showing that the capacity factor for natural gas and propane combined was 10% or less.~~

**[Rule 62-4.070(3), F.A.C., ~~40 CFR 60.41b and 40 CFR 60.44b(d)~~**

{Note: This condition effectively limits the annual average heat input from natural gas and propane combined to approximately 29.1 MMBtu/hr. }

### COMPLIANCE AND PERFORMANCE TESTING

#### B.10 Stack Testing

Compliance with the emission limits for visible emissions (opacity), carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>) in specific condition B.8 of this permit shall be demonstrated by continuous emission monitoring systems (CEMS) as required by specific condition B.13.

Compliance tests for the other pollutants listed in specific condition B.8 shall be performed annually (unless indicated otherwise) by using the following reference methods as described in 40 CFR 60, Appendix A and/or 40 CFR 61 Appendix B adopted by reference in Chapter 62-204, F.A.C. or any other method as approved by FDEP, in accordance with Chapter 62-297, F.A.C. Stack tests may also require Method 1, 2, 3/3A/3B and 4 tests as appropriate. Testing shall be conducted in accordance with the requirements of 40 CFR 60.58b Compliance and Performance Testing. With the exception of mercury testing, emission determinations based on stack tests shall be the average of three valid test runs pursuant to Rule 62-297.310(1), F.A.C. A test protocol shall be submitted for approval to the DEPSD at least 45 days prior to the initial testing. **[Rule 62-204.800(8), F.A.C. and Chapter 62-297, F.A.C.]**

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

## AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

### SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

- (1) Pursuant to 40 CFR 60.58b(c)(3) EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than  $160 \pm 14$  °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run. Since the limit for MWC Metals (as PM) is identical to the limit for PM<sub>10</sub>, one annual test may suffice in determining compliance with both limits.
- (2) Dioxin/Furan emission limit expressed as the total mass of tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans. The unit may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) and 60.58b(g)(5)(iii) and (6), with prior notice to the Department, if the unit's dioxin/furan emissions do not exceed 7 ng/dscm corrected to 7% O<sub>2</sub> and if the existing two MWC units' dioxin/furan emissions do not exceed 15 ng/dscm each, corrected to 7% O<sub>2</sub>.
- (3) SO<sub>2</sub>, Mercury and HCl stack tests upstream and downstream of the control device(s) shall be conducted to calculate percent control. Demonstration of the SO<sub>2</sub> emission limit shall be used as a surrogate for determining compliance with the SAM emission limit.
- (4) The mercury emission rate shall be limited to no more than 0.028 mg/dscm at 7% O<sub>2</sub> or an 85% reduction (whichever is less stringent) based upon three valid test runs (annually) pursuant to Rule 62-297.310(1), F.A.C. However, the applicant may eliminate one test run per year in the event that the single run yields an inlet Hg concentration above 0.450 mg/dscm at 7% O<sub>2</sub>, and the carbon injection system can be shown to have been operating properly. In the alternative, the applicant may retest within 30 days after receiving test results showing that the inlet Hg concentration was above 0.450 mg/dscm at 7% O<sub>2</sub> in two or more test runs, provided the applicant demonstrates that the carbon injection system was working properly during the test runs.
- (5) The ammonia slip rate shall be initially established for a 12-month period at 50 ppmvd @ 7% O<sub>2</sub> and based upon quarterly stack test results. Thereafter, the ammonia slip rate shall be established at 30 ppmvd @ 7% O<sub>2</sub> based upon quarterly stack test results. However, if the ammonia CEMS demonstrates that the quarterly ammonia slip average for the calendar quarter preceding the scheduled quarterly test is 15 ppmvd @ 7% O<sub>2</sub> or less, then CEMS data shall substitute for the required quarterly stack test.

B.11. Test Procedures: Compliance tests shall meet all applicable requirements (i.e., testing frequency, minimum compliance duration, etc.) of Chapter 62-297, F.A.C. The Method 9 test shall be conducted during one run of the particulate matter test. The particulate matter

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

test shall be conducted under conditions representative of normal operations and at least one test run shall be conducted during a normal (soot blowing) cycle. Initial performance tests for SO<sub>2</sub>, ~~and~~ NO<sub>x</sub>, and CO, shall be conducted using CEMS in accordance with the methods and requirements of 40 CFR 60.58b(e)(4), (h)(3) and (i)(3) respectively. Simultaneous CEMS data for NO<sub>x</sub> shall be submitted with the quarterly ammonia stack test data and results. All test reports shall include the information required by 40 CFR 60.59b(f). [**Rules 62-4.070(3), 62-297.310 and 62-204.800(8), F.A.C.; ~~40 CFR 60.38b, 40 CFR 60.58b and 40 CFR 60.59b~~**]

- B.12 Stack Testing Facilities: The owner or operator shall install stack testing facilities in accordance with Rule 62-297.310(6), F.A.C. The owner or operator shall provide ports in the air pollution control equipment outlet duct or stack and shall provide access to the sampling ports. [**Rule 62-297.310(6)(c), F.A.C.**]

**MONITORING OF OPERATIONS**

- B.13 Continuous Monitoring: Compliance with the emission limits for carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>) and sulfur dioxide (SO<sub>2</sub>) in specific condition B.8 of this permit shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with the requirements of 40 CFR 60.58b. Oxygen (O<sub>2</sub>), and opacity shall be monitored by continuous monitoring systems. Monitors for sulfur dioxide and oxygen shall be located both upstream of the dry scrubber and downstream of the baghouse in order to calculate percentage removal efficiency. A CEMS shall be installed for the purpose of measuring ammonia slip from this emissions unit (with a range of 100ppm), and used for informational purposes rather than continuous compliance (other than as allowed for in specific condition B.10). For purposes of the RATA, this CEMS shall be compared to CTM-027. All continuous monitoring systems shall be installed, calibrated, maintained and operated as required by 40 CFR 60.13 and shall conform to all applicable Performance Specifications in 40 CFR 60, Appendix B. Quality assurance procedures shall conform to all applicable sections of 40 CFR 60, Appendix F. Initial performance evaluations shall be completed within 180 days after initial startup of the unit. Data on continuous monitor equipment specifications, manufacturer, type, calibration and maintenance needs, and proposed locations shall be provided to the DEPSD for review at least 90 days prior to installation. [**Rules 62-4.070(3) and 62-204.800(8), F.A.C.; ~~40 CFR 60.38 and 40 CFR 60.58b~~**]
- B.14 Continuous Load Monitoring: The owner or operator shall install, calibrate, maintain, and operate a steam flow meter, measure steam flow in kilograms (or pounds) per hour on a continuous basis, and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b). [**Rule 62-204.800(8), F.A.C., ~~40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(6)~~**]

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

- B.15 Charging Rate Monitoring: The average daily solid waste charging rate shall be determined on a monthly basis and recorded for the MWC unit. The daily charging rate shall be determined each month on an average daily basis for the MWC unit using the facility's truck scale weight data, refuse pit inventory data and MWC operating data for the preceding calendar month. Monthly truck scale weight records of the weight of solid waste received and processed at the unit, and refuse pit inventory data, shall be used to determine the amount of solid waste charged during the preceding calendar month on an average daily basis. The MWC load level measurements or other operating data shall be used to determine the number of operating hours for each day during the preceding calendar month. [**Rules 62-204.800(8) and 62-4.070(3), F.A.C., and ~~40 CFR 60.53(a)~~**]
- B.16 Compliance with the PM Control Device Temperature: The MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR ~~60~~ 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. The MWC unit shall be allowed to operate up to 17°C (30° F) above the unit's maximum demonstrated PM control device temperature. The maximum demonstrated PM control device temperature is the highest 4-hour arithmetic measurement of temperature at the inlet to the PM control device recorded for 4 consecutive hours during the most recent dioxin/furan performance test which complied with the limits given above. The PM control device inlet temperature and the steam flow for the unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Eb. Higher temperatures are allowed for testing purposes, as specified at 40 CFR 60.53b(c). [**Rule 62-204.800(8), F.A.C. and ~~40 CFR 60.38b~~, 40 CFR 60.53b(c) and 60.58b(i)(7) and (9)**]
- B.17 Carbon Injection Rate: The optimal carbon injection rate in pounds-per hour shall be determined ~~during initial operations~~ preceding and during the initial compliance test. Optimization should be based upon the maximum expected mercury inlet concentrations as well as necessary operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed. During operation of the MWC unit, the carbon injection system shall be provided with a continuous indication of the injection rate and the carbon mass feed rate must equal or exceed the level which was determined as optimal. The owner or operator shall estimate the total carbon usage for the unit for each calendar quarter by utilizing the measured carbon mass feed rate (lb/hr) for each hour of operation of the MWC unit based on the continuous indicator for carbon mass feed rate, and the total number of operating hours of operation during the calendar quarter. [**Rule 62-204.800(8), F.A.C. and 40 CFR 60.58b(m)**]

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

B.18 Continuous Monitors: Continuous monitors with recorders shall be installed, calibrated, maintained and operated for the unit subject to review by the DEPSD for the following operational parameters:

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

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

Particulate matter control device inlet temperature

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

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

**RECORD KEEPING AND REPORTING REQUIREMENTS**

B.19 Reports and Records:

All measurements, records and other data (test reports, etc.) required to be maintained by this facility shall be retained for at least five (5) years following the date on which such measurements, records and other data are recorded. Such records shall be maintained at the facility and shall include but not be limited to the items listed below. These records shall be made available upon request to the DEPSD for inspection at the facility. **[Rules 62-4.070(3) and 62-4.160(14)(b), F.A.C., 40 CFR 60.59b and 40 CFR 60.44b(d)]**

(a) Data collected from all monitoring instruments, including continuous monitoring systems, steam flow measurements and PM control device temperatures;

(b) Continuous steam flow records on a 4-hour block average basis;

(c) Records of daily solid waste charging rates and hours of operation derived from monthly truck scale data, refuse pit inventory, and operational records;

~~(d) Amount of natural gas or propane burned during each month; the equivalent heat input from natural gas or propane for each month, calculated using the heat value for natural gas or propane provided by the natural gas or propane supplier; and the annual records of the natural gas or propane capacity factor for the unit;~~

(de) Results of all source tests or performance tests; and records of the maximum demonstrated unit load specified by condition B.3 of this permit.

(ef) Amounts of activated carbon used for emissions control;

(fg) Calibration logs for all instruments subject to this permit;

(gh) Maintenance/repair logs for any work performed which is subject to this permit;

(hi) Records showing the names of facility personnel who have been provisionally or fully certified, and who have completed the MWC operator training course, and who have completed reviews of the operating manual, including the dates and documentation of certification/review.



# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

- (ij) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by specific condition B.24 of this permit.

### B.20 Excess Emission Reports:

#### B.20.1 Quarterly Reports:

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

- (a) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factors used, and the date and time of commencement and completion of each period of excess emissions. **[40 CFR 60.7(c)(1)]**
- (b) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the furnace boiler system. The nature and cause of any malfunction (if known) and the corrective action taken or preventive measures adopted. **[40 CFR 60.7(c)(2)]**
- (c) The date and time identifying each period during which the continuous monitoring system (CEM/COM) was inoperative except for zero and span checks, and the nature of the system repairs or adjustments. **[40 CFR 60.7(d)(2) as applicable]**
- (d) When no excess emissions have occurred or the continuous monitoring system (CEM/COM) has not been inoperative, repaired, or adjusted, such information shall be stated in the report. **[40 CFR 60.7(c)(4)]**

#### B.20.2 Other Excess Emission Reports:

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

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

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

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

B.21 Continuous Emission Monitoring System Reports: For CEM and other monitoring systems required by this permit, data on monitoring equipment specifications, manufacturer, type, calibration and maintenance needs, and proposed sampling location shall be provided to the DEPSD for review at least 90 days prior to installation.

**[Rule 62-4.070(3), F.A.C.]**

B.22 Operating Reports: Before March 1st of each year, the owner or operator shall submit to the DEPSD the Annual Operating Report [DEP Form No. 62-210.900(5)], which summarizes operations for the previous calendar year.

No later than February 1st of each year, the owner or operator shall submit an annual report for the previous calendar year including the information required by 40 CFR 60.59b(g)(1) through (4), as applicable.

In addition, if applicable, the owner or operator shall submit to the DEPSD the information required in 40 CFR 60.59b(h) on a semiannual basis.

**[Rule 62-210.370(3), F.A.C. and 40 CFR 60.59b(g) and, if applicable, 40 CFR 60.59b(h)]**

B.23 Sampling Reports: Drawings of testing facilities including sampling port locations as required by Section 62-297.310(8)(c) shall be submitted to the DEPSD for review at least 60 days prior to construction of the sampling ports.

B.24 Segregated Solid Waste Record Keeping: The following records shall be made and kept to demonstrate compliance with the segregated non-MSW percentage limitations of specific condition B.6.6 and B.6.7:

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

Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the current month. The resultant weight of tires at the end of each calendar month (excluding tires stored at the waste tire processing facility) shall be divided by the total weight of all waste materials received

## AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

### SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

during each calendar month, and the resultant number shall be multiplied by 100 to express the ratio as a percent. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction (restricted materials) shall be computed, and the daily total shall be added to the sum of the daily totals of the current month. The resultant total weight of restricted materials at the end of each calendar month shall be divided by the total weight of all waste materials received during each calendar month, and the resultant number shall be multiplied by 100 to express the ratio as a percent. The percentage computed shall be compared to the 5% limitation.

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

**B.25 Heat Input Reporting Requirements.** The owner or operator shall submit to the DEPSD notification of the date of initial startup as provided by 40 CFR 60.7. Such notification shall include the design heat input capacity of the affected unit, and the annual capacity factor at which the owner or operator anticipates operating the unit based on the fuels fired. [~~40 CFR 60.49b(a)(1) & (3) and 40 CFR 60.59b(b)~~]

**B.26 Report of Vendor and Equipment Selection.** Within 60 days of selection of a primary vendor for this project, a report detailing the design features of the MWC equipment to be installed shall be submitted to the DEPSD. Such report shall include the nominal and maximum design capacities of the furnace, grates and boiler, and shall detail operating rates such as heat input, steam production, mass throughput and turndown capability. [Rule 62-4.070(3), F.A.C.]

### OPERATOR TRAINING AND CERTIFICATION

#### B.27 Requirements

- (a) One of the following persons must be on duty at the facility at any time during which the MWC unit is operating: a fully certified chief facility operator or shift supervisor; or a provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam according to the schedule specified in Specific Condition III.B.27(b). This requirement shall take effect 6 months after the date of

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

startup of the unit. If this person must leave the facility during his or her operating shift, a provisionally certified control room operator who is on site may fulfill this requirement. A qualified, ~~professionally~~ provisionally certified control room operator may temporarily replace the fully certified shift supervisor during specific periods when the certified shift supervisor is excused from work due to vacation or illness and after notification to the Department's South District Office. [~~40 CFR 60.39b(e)(4)(ii) and 40 CFR 60.54b(c)~~]

- (b) No later than the date 6 months after the date of startup of the unit, Each chief facility operator and shift supervisor ~~must~~shall obtain and maintain a current provisional operator certification and be scheduled for a full certification exam, or receive full certification, ~~with~~from either the ASME or an ~~equivalent~~ sState ~~approved~~ certification program, ~~before the date that person assumes responsibility for operation of the facility.~~ [~~40 CFR 60.39b(e)(4)(ii) and 40 CFR 60.54b(a) and (b)~~]
- (c) Each chief facility operator, shift supervisor, and control room operator must complete the EPA or sState ~~approved~~ MWC operator training course no later than the date 6 months after the date of startup of the unit. ~~before the date that person assumes responsibility for operation of the facility.~~ The operator training course requirements of 40 CFR 60.54b(d) do not apply to chief facility operators, shift supervisors and control room operators who have obtained full ASME certification on or before the date of State plan approval (November 13, 1997). [~~40 CFR 60.39b(e)(4)(iii)(A).~~] The owner or operator may request that the Department ~~waive the operator training course requirements specified in 40 CFR 60.54b(d) for chief facility operators, shift supervisors and control room operators who have obtained provisional ASME certification on or before the date of State plan approval (November 13, 1997)~~ [~~40 CFR 60.39b(e)(4)(iii)(B).~~] [~~40 CFR 60.39b(e)(4) and 40 CFR 60.54b(d)~~]
- (d) A site-specific operating manual ~~must~~shall be developed and updated on an annual basis which meets the requirements of [40 CFR 60.54b(e)]. A training program ~~must~~shall be established to review the operating manual with each person who has responsibilities affecting the operation of the MWC including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person must undergo initial training no later than the date 6 months after the date of startup of the unit or the date prior to~~before~~ the day that person assumes responsibilities affecting operation of the facility, whichever is later, and annually thereafter pursuant to 40 CFR 60.54b(f). The operating manual must be kept in a readily accessible location for all persons required to undergo training. [~~40 CFR 60.35b and 40 CFR 60.54b(e), & (f) and (g)~~]

AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

**SUBSECTION C. SPECIFIC CONDITIONS:**

The following specific conditions apply to the indicated emissions unit.

<b>EMISSIONS UNIT NO.</b>	<b>EMISSIONS UNITS DESCRIPTION</b>
-007	Lime Silo
(existing)	Ash and Carbon Handling

**EMISSION LIMITATIONS**

**C.1 Lime & Carbon Silos and Ash Handling System:**

Particulate emissions from these emissions units shall be limited as follows:

- (a) PM emissions from the lime storage silo shall be controlled by a baghouse. Visible emissions shall not exceed 5% opacity in accordance with specific condition C.3.
- (b) PM emissions from the activated carbon storage silo exhaust shall be controlled by a baghouse. Visible emissions shall not exceed 5% opacity in accordance with specific condition C.3.
- (c) Visible emissions from the ash conveyor systems, transfer points, buildings, or enclosures of ash conveying systems shall not occur more than 5 percent of the time during the observation period, except during times of maintenance or repair of these systems.
- (d) The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. The ash handling facilities shall be enclosed. Residue from the grates, grate siftings, and ash from the combustor/boiler and fabric filter hoppers during normal operations shall be discharged into the ash quenching system, or otherwise handled in a manner to minimize visible dust. The ash/residue in the ash handling building shall remain sufficiently moist to prevent dust during storage and handling operations.

**[Rule 62-4.070(3), F.A.C., ~~40 CFR 60.36b~~ and 40 CFR 60.55b]**

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

**COMPLIANCE AND PERFORMANCE TESTING**

C.2 Fugitive Emissions Compliance: The compliance method for the ash handling facilities shall be EPA Method 22, Visual Determination of Fugitives Emissions From Material Sources.

(a) The minimum observation time will be three hours, and will include periods when ash is being transferred from the MWC unit to the storage area, and when ash is being loaded for disposal.

(b) Compliance testing shall be conducted within 180 days of completion of construction and initial operation and annually thereafter.

[Rule 62-4.070(3), F.A.C., ~~40 CFR 60.36b~~ and 40 CFR 60.55b]

C.3. Carbon and Lime Storage Silos PM Compliance Requirements: Compliance testing for the lime and carbon silos shall be conducted within 180 days of completion of construction and initial operation and annually thereafter. The visible emission tests shall be performed for each silo during filling operations using EPA Method 9. Permanent stack testing facilities are not required for the lime and carbon silos. The owner or operator may install temporary stack sampling facilities to conduct such a test, if required.

[Rule 62-297.620(4), F.A.C.]

AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

**SUBSECTION D. COMMON CONDITIONS:**

The following specific conditions apply to the following emissions units.

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
-006	660 Tons per Day nominal MSW Incinerator
-007	Lime Silo
(existing)	Ash and Carbon Handling

**OPERATIONAL REQUIREMENTS**

- D.1 These emissions units are allowed to operate continuously (8760 hours/year).  
**[Rule 62-210.200, F.A.C. Definitions-Potential to emit (PTE)]**
  
- D.2 Odor Control: No objectionable odors are allowed from this facility. The truck access doors to the unit shall remain closed except during normal working shifts when MSW is being received at the storage pit area. To minimize odors at the unit, a negative pressure shall be maintained on the tipping floor and air from within the building will be used as combustion air. **[Rule 62-296.320(2), F.A.C.]**
  
- D.3 Startup/Shutdown/Malfunxions
  - (a) In order to minimize excess emissions during startup/shutdown/malfunction these emissions units shall adhere to best operational practices to minimize emissions.  
  
The duration of excess emissions from the lime silo or the carbon silo shall be minimized but in no case exceed 2 hours per occurrence  
**[Rule 62-210.700, F.A.C.]**
  
  - (b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.  
**[Rule 62-210.700(4), F.A.C.]**
  
  - (c) Within 90 days prior to completion of construction of the unit, the owner or operator shall submit to the DEPSD an operational procedures manual that identifies and describes best operational practices that will be used during startup, shutdown, and malfunxions.

# AIR CONSTRUCTION PERMIT 0710119-002-AC, PSD-FL-151C

## SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

---

### EMISSION LIMITATIONS

D.4 Facility Fugitive (Unconfined) Emissions: Fugitive emissions at this facility shall be adequately controlled at all times. All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. Speed limit signs shall be posted. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor or the refuse bunker while trucks are entering and leaving) shall be under negative air pressure. **[Rule 62-296.320(4)(c), F.A.C.]**

### COMPLIANCE AND PERFORMANCE TESTING

D.5 Test Notification: The owner or operator shall notify the DEPSD in writing at least *30 days* (for the initial test) and *15 days* (for the annual tests) prior to each scheduled compliance test to allow witnessing. The notification shall include the compliance test date, place of such test, the expected test time, the facility contact person for the test, and the person or company conducting the test. The 30 or 15 day notification requirement may be waived at the discretion of the DEPSD. Likewise, if circumstances prevent testing during the test window specified for the emissions unit, the owner or operator may request an alternate test date before the expiration of this window. **[Rule 62-297.310 F.A.C. and 40 CFR 60.8, F.A.C.]**

D.6 Special Compliance Tests: When the Department, after investigation, has good reason (such as substantiated complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in Rule 62-204, 62-210, 62-212, 62-296 and 62-297, F.A.C. or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the DEPSD. **[Rule 62-297.310(7)(b), F.A.C.]**

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



**SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

---

**RECORD KEEPING AND REPORTING REQUIREMENTS**

D.8 Emission Compliance Stack Test Reports:  
**[Rule 62-297.310(8), F.A.C., and 40 CFR 60.59(b)(f)]**

- (a) A *test report* indicating the results of the required compliance tests shall be filed with the DEPSD as soon as practical, but no later than 60 days after the last sampling run is completed.
- (b) The *test report* shall provide sufficient detail on the tested emissions unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.