

**STATE OF FLORIDA  
DEPARTMENT  
OF  
ENVIRONMENTAL PROTECTION**



**Conditions of Certification**

**Hillsborough County Solid Waste Management Department  
Hillsborough County Resource Recovery Facility (Units 1-4)  
PA 83-19G**

**Modified: July 11, 2011**

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0570261-006-AV	

## SECTION A: GENERAL CONDITIONS

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### SECTION A: GENERAL CONDITIONS

#### I. SCOPE

A. Pursuant to the Florida Electrical Power Plant Siting Act (PPSA), Sections 403.501-518, Florida Statutes (F.S.), and Chapter 62-17, Florida Administrative Code (F.A.C.), this certification is issued to the Hillsborough County Solid Waste Management Department (HCSWMD) as owner/operator and Licensee of the Hillsborough County Resource Recovery Facility (HCRRF). Subject to the requirements contained in these Conditions of Certification (Conditions), HCSWMD will operate a 47 megawatt (MW) electrical generation facility consisting of four municipal waste combustion units, two steam turbine generators, and other associated facilities as described in the site certification application (SCA). These facilities are located on a 50.4-acre site at 350 North Falkenburg Road in Tampa, Hillsborough County, Florida. The UTM coordinates are: Zone 17, 368.2 km East, 3092.7 km North; and the latitude/longitude are: 27°57'14" North/82°40'22" West. The Department does not intend, solely by the incorporation of these General Conditions, to require the retrofitting of existing certified facilities.

B. These Conditions, unless specifically amended or modified, are binding upon the Licensee and shall apply to the construction, operation and maintenance of the certified facility. If a conflict should occur between the design criteria of this certified facility and the Conditions, the Conditions shall prevail unless amended or modified. In any conflict between any of these Conditions, the more specific condition governs.

C. Within 60 days after completion of construction of the electrical power plant as defined by 403.503(14), F.S., excluding off-site linear and non-linear associated facilities, the Licensee shall provide to the Department in .pdf format: a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the site as defined by Section 403.503(28), F.S., and an aerial photograph delineating the boundaries of the site. The survey map and aerial photograph shall be identified as the site delineation and attached hereto as part of Attachment A.

The Licensee shall notify the Department of any change to the site boundary depicted in the site delineation in Attachment A. The notification shall be accompanied by an updated land survey map (or legal description) and aerial photograph delineating the new boundaries of the site for review by the Department. Absent the above description/delineation of the site, the Department will consider the perimeter fence line of the property on which the electrical power plant's generating facility and onsite support facilities are located to be the boundaries of the site.

D. If both certified and uncertified facilities lie within the boundaries of the site, the Licensee shall also comply with the requirements of this paragraph. Within 60 days after completion of construction of the plant and on-site associated facilities, but excluding off-site linear and non-linear facilities, the Licensee shall provide to the Department in .pdf format: a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the certified areas within the site; and an aerial photograph delineating the boundaries of the certified areas within the site. The boundaries of the certified area shall include both the certified electrical power plant's generating facilities as defined in Section 403.503(28), F.S., and its on-site certified associated facilities (including on-site linear facilities) as defined by Section 403.503(7), F.S. The survey map and

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the aerial photograph shall be known as the delineation of the certified area of the site and attached hereto as part of Attachment A.

E. Within 120 days after completion of construction of the off-site associated non-linear facilities, the Licensee shall provide to the Department in .pdf format; a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the certified areas for each off-site non-linear certified facility. The survey map(s) and aerial photographs shall be known as Delineation of the Certified Areas of the Off-Site Non-linear Facilities and attached hereto as part of Attachment A.

F. Within 180 days after completion of construction of associated off-site linear facilities, as defined by Section 403.503(7), F.S., the Licensee shall provide: an aerial photograph(s)/map(s) at a scale of at least 1:400, or acceptable equivalent documentation such as an official legal description or survey map(s) signed by a professional land surveyor, delineating the boundaries of the certified area(s), following acquisition of all necessary property interests and the corridor narrowing as described in section 403.503(11), F.S., which shall be known as the Delineation of Off-Site Linear Facilities and attached as part of Attachment A.

Following any post-certification approvals that require a change to the boundaries of the certified area(s) depicted in the delineation of off-site linear facilities in Attachment A, the Licensee shall submit an updated aerial photograph/map, survey map or legal description.

*[Sections 403.511, 403.531, and 403.9416, F.S.; subsections 62-4.160(8) and 62-17.205(2), F.A.C.]*

## II. APPLICABLE RULES AND STATUTES

The construction, operation and maintenance of the certified facility shall be in accordance with all applicable non-procedural provisions of Florida Statutes and Florida Administrative Code, including, but not limited to, the applicable non-procedural portions of the following regulations, except to the extent a variance, exception, exemption or other relief is granted in the final order of certification or in a subsequent modification to the Conditions, under any federal permit or as otherwise provided under Chapter 403:

### **Florida Statutes:**

- Chapter 120 (Administrative Procedure Act)
- Chapter 163 (Intergovernmental Programs)
- Chapter 252 (Emergency Management)
- Chapter 253 (State Lands)
- Chapter 258 (State Parks & Preserves)
- Chapter 267 (Historical Resources)
- Chapter 373 (Water Resources)
- Chapter 376 (Pollutant Discharge Prevention and Removal)
- Chapter 379 (Fish and Wildlife Conservation)
- Chapter 380 (Land & Water Management)
- Chapter 469 (Asbestos Abatement)
- Chapter 403 (Environmental Control)
- Chapter 487 (Pesticide Regulation and Safety)
- Chapter 556 (Underground Facility Damage Prevention and Safety)

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### **Florida Administrative Codes:**

5I-2 (Open Burning)  
18-2 (Management of Uplands Vested in the Board of Trustees)  
18-14 (Administrative Fines for Damaging State Lands)  
18-20 (Aquatic Preserves)  
18-21 (Sovereign Submerged Lands Management)  
62-4 (Permits)  
62-17 (Electrical Power Plant Siting)  
62-25 (Regulation of Stormwater Discharge)  
62-40 (Water Resource Implementation Rule)  
62-150 (Hazardous Substance Release Notification)  
62-160 (Quality Assurance)  
62-204 (Air Pollution Control-General Provisions)  
62-210 (Stationary Sources-General Requirements)  
62-212 (Stationary Sources-Preconstruction Review)  
62-213 (Operation Permits for Major Sources of Air Pollution)  
62-214 (Requirements for Sources Subject to the Federal Acid Rain Program)  
62-256 (Open Burning)  
62-296 (Stationary Sources-Emission Standards)  
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62-343 (Environmental Resource Permit Procedures)  
62-345 (Uniform Mitigation Assessment Method)  
62-346 (Environmental Resource Permitting in Northwest Florida – Revised April 21, 2009)  
62-520 (Groundwater Classes, Standards and Exemptions)  
62-522 (Groundwater Permitting and Monitoring Requirements)  
62-528 (Underground Injection Control)  
62-531 (Water Well Contractor Licensing Requirements)  
62-532 (Water Well Permitting and Construction Requirements)  
62-550 (Drinking Water Standards, Monitoring and Reporting)  
62-555 (Permitting, Construction, Operation, and Maintenance of Public Water Systems)  
62-560 (Requirements for Public Water Systems That Are Out of Compliance)  
62-600 (Domestic Wastewater Facilities)  
62-601 (Domestic Wastewater Treatment Plant Monitoring)  
62-604 (Collection Systems and Transmission Facilities)  
62-610 (Reuse of Reclaimed Water and Land Application)  
62-620 (Wastewater Facility and Activities Permitting)

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62-621 (Generic Permits)  
62-650 (Water Quality Based Effluent Limitations)  
62-660 (Industrial Wastewater Facilities)  
62-699 (Treatment Plant Classification and Staffing)  
62-701 (Solid Waste Management Facilities)  
62-702 (Solid Waste Combustor Ash Management)  
62-730 (Hazardous Waste)  
62-761 (Underground Storage Tank Systems)  
62-762 (Aboveground Storage Tank Systems)  
62-769 (Florida Petroleum Liability and Restoration Insurance Program)  
62-770 (Petroleum Contamination Site Clean-Up Criteria)  
62-780 (Contaminated Site Clean-Up Criteria)  
62-807 (Natural Gas Transmission Pipeline)  
62-814 (Electric and Magnetic Fields)  
64E-6 (Standards for Onsite Sewage Treatment and Disposal Systems)

**For Facilities in the Southwest Florida Water Management District:**

40D- 4 (Individual Environmental Resource Permits)  
40D-8 (Water Levels and Rates of Flow)  
40D-40 (Standard General Environmental Resource Permits)  
Basis of Review for ERP Applications

### III. REVISIONS TO DEPARTMENT STATUTES AND RULES

A. The Licensee shall comply with rules adopted by the Department subsequent to the issuance of the certification under the PPSA which prescribe new or stricter criteria, to the extent that the rules are applicable to electrical power plants. Except when express variances, exceptions, exemptions, or other relief have been granted, subsequently adopted Department rules which prescribe new or stricter criteria shall operate as automatic modifications to certifications.

B. Upon written notification to the Department, any holder of a certification issued pursuant to the PPSA may choose to operate the certified electrical power plant in compliance with any rule subsequently adopted by the Department which prescribes criteria more lenient than the criteria required by the terms and conditions in the certification which are not site-specific.

*[Section 403.511(5)(b), F.S.; subsection 62-4.160(10), F.A.C.]*

### IV. DEFINITIONS

Unless otherwise indicated herein, the meaning of terms used herein shall be governed by the applicable definitions contained in Chapters 373 and 403, F.S., and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these Conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning as determined by the Department. As used herein, the following shall apply:

A. “Application” means the documents required by the Department to be filed to initiate a certification review and evaluation, including the initial document filing, amendments,

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and responses to requests from the Department for additional data and information. For purposes of this license application shall also include materials submitted for petitions for modification to the Conditions of Certification, as well as supplemental applications.

- B. “Associated Facilities” is defined by Section 403.503(7), F.S.
- C. “Certified Area” means the area within the site in which the certified facilities are located. For linear facilities this term shall mean the area encompassed by the boundaries of the certified easements and/or ROWs.
- D. “Certified Facility” or “Certified Facilities” means the certified electrical power generation facilities and all on- or off-site associated structures including but not limited to: steam generating units, transformers, substations, fuel and water storage tanks, air and water pollution control equipment, storm water control ponds and facilities, cooling towers, and related structures. This term shall also mean linear and associated facilities, including but not limited to: transmission lines, natural gas pipelines, and compressor stations.
- E. “DCA” means the Florida Department of Community Affairs.
- F. “DEP” or “Department” means the Florida Department of Environmental Protection.
- G. “DHR” means the Florida Department of State, Division of Historical Resources.
- H. “DOT” means the Florida Department of Transportation.
- I. “Emergency conditions” or “Emergency reporting” means urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity.
- J. “EPC” means the Hillsborough County Environmental Protection Commission.
- K. “Feasible” means reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.
- L. “FWC” means the Florida Fish and Wildlife Conservation Commission.
- M. “Licensee” means an applicant that has obtained a certification order for the subject project.
- N. “NPDES permit” means a federal National Pollutant Discharge Permit System permit issued in accordance with the federal Clean Water Act.
- O. “PSD permit” means a federal Prevention of Significant Deterioration air emissions permit issued by DEP in accordance with the federal Clean Air Act.
- P. “ARPC”, “CFRPC”, “ECFRPC”, “NCFRPC”, “NEFRPC”, “SFRPC”, “SWFRPC”, “TBRPC”, “TCRPC”, “WFRPC”, or “WRPC” means the Apalachee, Central Florida, East Central Florida, North Central Florida, Northeast Florida, South Florida, Southwest Florida, Tampa Bay, Treasure Coast, West Florida or Withlacoochee Regional Planning Council, respectively.
- Q. “ROW” means right-of-way.

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R. “Site” means any proposed location within which will be located an electrical power plant's generating facility and onsite support facilities, or an alteration or addition of electrical generating facilities and onsite support facilities resulting in an increase in generating capacity, including offshore sites within state jurisdiction.

S. “Surface Water Management System” or “System” means a stormwater management system, dam, impoundment, reservoir, appurtenant work, or works, or any combination thereof. The terms “surface water management system” or “system” include areas of dredging or filling, as those terms are defined in Sections 373.403(13) and (14), F.S. However, until the effective date of the rules authorized by Section 373.4145(1)(b), F.S., the term “surface water management system” is limited to stormwater management systems.

T. “NWF, SR, SJR, SWF, or SF WMD” means the Northwest Florida, Suwannee River, St. Johns River, Southwest Florida, or South Florida Water Management District, respectively.

U. “Title V permit” means a federal permit issued by DEP in accordance with Title V provisions of the federal Clean Air Act.

### V. TRANSFERABILITY OF DEFINITIONS

Definitions in other Chapters of the Department's rules may be used to clarify the meaning of terms used in these Conditions unless transfer of such definition would defeat the purpose or alter the intended effect of the provisions of these Conditions.

*[Rule 62-4.021, F.A.C.]*

### VI. DEPARTMENT PERMITS UNDER FEDERAL PROGRAMS

This certification is not a waiver of any other Department approval that may be required under federally delegated or approved programs. The Department may consider a violation of any of these permits as a violation of this license.

#### A. Air

The provisions of the following paragraphs shall be conditions of this certification. The Licensee shall comply with the substantive provisions and limitations set forth in both the Air Construction Permit(s) and the Title V Air Operation Permit as part of these Conditions, and as those provisions may be modified, amended, or renewed in the future by the Department. Such provisions shall be fully enforceable as conditions of this certification. Any violation of such provisions shall be a violation of these Conditions.

##### 1. Air Construction Permit(s)

Air Construction Permits PSD-FL-104, PSD-FL-121, PSD-FL-121B, 0570261-002-AC (PSD-FL-121C), 0570261-004-AC, PSD-FL-369, 0570261-007-AC (PSD-FL-369B), 0570261-008-AC, 0570261-009-AC (PSD-FL-369A), and 0570261-010-AC are incorporated by reference herein as part of these Conditions and attached as Appendix I.

*[Chapter 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.]*

##### 2. Title V Permit

Title V Air Operation Permit 0570261-006-AV is incorporated by reference herein as part of these Conditions and attached as Appendix II.

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*[Chapters 62-204, 62-210, 62-213, 62-214, 62-296, and 62-297, F.A.C.]*

### **B. Water**

1. No industrial wastewater discharges pursuant to the federal National Pollution Discharge Elimination System (NPDES) requirements are authorized for this certified facility.

2. NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP)

Any storm water discharges associated with construction activities on the site shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. Prior to commencing construction activities on the site that:

- contribute to stormwater discharges to surface waters of the State or into a municipal separate storm sewer system (MS4); and
- disturb one or more acres of land (less than one acre if the activity is part of a larger common plan of development);

a CGP must be obtained as applicable.

*[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]*

3. NPDES Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity (MSGP)

Any storm water discharges associated with industrial activity shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. For industrial activities at the site that result in a discharge of stormwater to surface waters of the State or into a municipal separate storm sewer system (MS4), and fall under any one of the 11 categories of industrial activities identified in 40 CFR 122.26(b)(14), a MSGP shall be obtained as applicable.

*[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]*

4. NPDES Generic Permit for Discharge of Produced Ground Water from any Non-Contaminated Site Activity

Prior to discharge of produced ground water from any non-contaminated site activity which discharges by a point source to surface waters of the State, as defined in Chapter 62-620, F.A.C., the Licensee must first obtain coverage under the Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity. Similarly, if the activity involves a point source discharge of ground water from a petroleum contaminated site, the Licensee must obtain coverage under the Generic Permit for discharge from petroleum contaminated sites. Before discharge of ground water can occur from such sites, analytical tests on samples of the proposed untreated discharge water shall be performed as required by Rule 62-621.300, F.A.C., to determine if the activity can be covered by either permit.

If the activity cannot be covered by either generic permit, the Licensee shall apply for an individual wastewater permit at least ninety (90) days prior to the date discharge to surface waters of the State is expected. No discharge to surface water is permissible without an effective permit.

*[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]*



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### ***C. Other Potential Federal Permits***

For informational purposes only, it should be noted that other federal permits for the certified facility may include permits issued by federal agencies such as the U.S. Army Corp of Engineers, U.S. Nuclear Regulatory Commission, and the U.S. Environmental Protection Agency.

### **VII. DESIGN AND PERFORMANCE CRITERIA**

Certification, including these Conditions, is predicated upon preliminary designs, concepts, and performance criteria described in the SCA or in testimony and exhibits in support of certification. Final engineering design will be consistent and in substantial compliance with the preliminary information described in the SCA or as explained at the certification hearing (if any). Conformance to those criteria, unless specifically modified in accordance with Sections 403.516, 403.5315, 403.9418, F.S., and Rule 62-17.211, F.A.C., is binding upon the Licensee in the design, construction, operation and maintenance of the certified facility. In any instance where a conflict occurs between the SCA's design criteria and the Conditions, the Conditions shall prevail.

*[Sections 403.516, 403.5315, and 403.9418, F.S.; Rules 62-17.211, 62-17.680, and 62-807.610, F.A.C.]*

### **VIII. NOTIFICATION**

A. If, for any reason, the Licensee does not comply with or will be unable to comply with any condition or limitation specified in this license, the Licensee shall immediately provide the appropriate DEP District Office with the following information:

1. A description of and cause of noncompliance; and
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Licensee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this certification.

All notifications which are made in writing shall additionally be immediately provided to the Siting Coordination Office (SCO) via email to [SCO@dep.state.fl.us](mailto:SCO@dep.state.fl.us).

*[subsection 62-4.160(8), F.A.C.]*

B. The Licensee shall promptly notify the SCO in writing of any previously submitted information concerning the certified facility that is later discovered to be inaccurate.

*[subsection 62-4.160(15), F.A.C.]*

### **IX. REPLACEMENT FOR RESTORATION OF SYSTEM INTEGRITY**

A. Replacement of all or a portion of a transmission line(s) or natural gas pipeline certified under the TLSA or the NGPSA that is necessary to restore system integrity following an emergency as defined by Sections 252.34(6), (7) or (9), F.S., and requiring deviation from any condition of certification shall not be considered a modification pursuant to Section 403.5315, F.S. A verbal report of the emergency replacement for restoration of system integrity shall be made to the Department as soon as possible. Within 30 days after correction of the emergency

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condition requiring a replacement for system integrity, a report to the Department shall be made outlining the details of the emergency condition requiring the replacement and the steps taken for its relief. The report shall be a written description of all of the work performed and shall set forth any pollution control measures or mitigative measures which were utilized or are being utilized to prevent pollution of waters, harm to sensitive areas or alteration of archaeological or historical resources.

B. The Department will use its enforcement discretion when evaluating violations that result from operating the certified facility under emergency conditions. During and after the emergency conditions, the Licensee must use due diligence to bring the facility back into compliance as soon as possible. In addition, the Licensee must use its best efforts and best management practices to minimize adverse environmental impacts. The Licensee shall notify the SCO and the appropriate DEP District Office when the emergency condition has ended. Furthermore, the Licensee must include all monitoring data, which would otherwise be required under normal operating circumstances, recorded during emergency conditions when submitting reports as required by these conditions. Any exceedances and/or violations recorded during emergency conditions shall be reported as such, but the Department acknowledges that it intends to use its enforcement discretion during this timeframe. This acknowledgement by the Department does not constitute a waiver or variance from any requirements of any federal permit. Relief from any federal agency must be separately sought.

*[Sections 403.511, 403.531, and 403.9416, F.S.]*

### **X. CONSTRUCTION PRACTICES**

#### **A. Local Building Codes**

This license shall not affect in any way the right of any local government to charge appropriate fees or require that construction be in compliance with applicable building construction codes.

*[Section 403.511(4), F.S.]*

#### **B. Particulate Matter**

The Licensee shall take reasonable precautions to control emissions of unconfined particulate matter in accordance with subparagraph 62-296.320(4)(c)1., F.A.C. The Licensee shall take appropriate measures to stabilize those portions of the certified area that are disturbed by construction or operation of the certified facility that may cause release of particulate matter.

*[Rule 62-296.320, F.A.C.]*

#### **C. Open Burning**

Any open burning in connection with initial land clearing shall be in accordance with the non-procedural requirements of Chapters 62-256 and 5I-2, F.A.C., or other applicable rules of an approved local air pollution control program. Prior to any burning of construction-generated material, after initial land clearing that is allowed to be burned in accordance with Chapter 62-256, F.A.C., the Licensee shall seek approval from the applicable approved local air pollution control program and the DEP District Office, whose approval may be granted in conjunction with the approval of the Division of Forestry. Burning shall not occur if not approval by the Department or the approved local air pollution control program is not granted, or if the

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Division of Forestry has issued a ban on burning due to fire safety conditions or due to air pollution conditions. A copy of any submittal by the Licensee relating to open burning shall be submitted to the affected County in which open burning will take place as requested or required by that County for informational purposes.

*[Chapters 5I-2 and 62-256, F.A.C.]*

### ***D. Solid Wastes***

Solid wastes resulting from construction shall be disposed of in accordance with the applicable non-procedural requirements of Chapter 62-701, F.A.C.

*[Chapter 62-701, F.A.C.]*

### ***E. Sanitary Wastes***

Sanitary wastes resulting from construction shall be disposed of in accordance with the applicable non-procedural requirements of the appropriate local health agency.

### ***F. Flood Control Protection***

The certified facilities shall be constructed in a manner that complies with any applicable non-procedural County flood protection requirements.

### ***G. Vegetation***

For areas located in any Florida Department of Transportation (DOT) ROW, Chapter 7 of the Florida DOT *Utility Accommodation Manual* located at this web address <http://www2.dot.state.fl.us/proceduraldocuments/procedures/bin/710020001/Chapter-7.pdf> shall serve as guidelines for best management practices.

### ***H. Underground Utilities***

The Licensee must follow all applicable portions of the Underground Facility Damage Prevention and Safety Act, Chapter 556, F.S. The Licensee shall provide the affected local government and the Siting Office with copies of valid tickets obtained from Sunshine State One Call of Florida upon request. Tickets shall be available for request until the underground work has been completed.

*[Chapter 556, F.S.]*

### ***I. Electric and Magnetic Fields***

Any transmission lines that are associated facilities shall comply with the applicable requirements of Chapter 62-814, F.A.C.

*[Chapter 62-814, F.A.C.]*

### ***J. Existing Wells***

Any existing wells in the path of construction that will no longer be used shall be abandoned by a licensed well contractor. All abandoned wells shall be filled and sealed in accordance with subsection 62-532.500(4), F.A.C., or with the rules of the authorizing agency, or consistent with these Conditions.

*[Rule 62-532.440 and subsection 62-532.500(4), F.A.C.]*

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### ***K. Abandonment of Existing Septic Tanks***

Any existing septic tanks to be impacted by construction and that will no longer be used shall be abandoned in accordance with Rule 64E-6.011, F.A.C., unless these Conditions provide otherwise.

*[Chapter 64E-6, F.A.C.]*

### **XI. RIGHT OF ENTRY**

A. Upon presentation of credentials or other documents as may be required by law, the Licensee shall allow authorized representatives of the Department or other agencies with jurisdiction over a portion of the certified facility:

1. At reasonable times, to enter upon the certified facility in order to monitor activities within their respective jurisdictions for purposes of assessing compliance with this certification; or

2. During business hours, to enter the Licensee's premises in which records are required to be kept under this certification; and to have access to and copy any records required to be kept under this certification.

B. When requested by the Department, on its own behalf or on behalf of another agency with regulatory jurisdiction, the Licensee shall within 10 working days, or such longer period as may be mutually agreed upon by the Department and the Licensee, furnish any information required by law, which is needed to determine compliance with the certification. If the Licensee becomes aware that relevant facts were not submitted or were incorrect in the SCA or in any report to the Department or other agencies, such facts or information shall be promptly corrected and submitted.

*[paragraph 62-4.160(7)(a) and subsection 62-4.160(15), F.A.C.]*

### **XII. DISPUTE RESOLUTION**

If a situation arises in which mutual agreement cannot be reached between the Licensee, the Department and another agency receiving a post-certification submittal or between the Department and the Licensee regarding compliance with the Conditions, then the matter shall be immediately referred to the Division of Administrative Hearings (DOAH) for disposition in accordance with the provisions of Chapter 120, F.S. The Licensee or the Department may request DOAH to establish an expedited schedule for the processing of such a dispute.

*[Section 120.57, F.S.]*

### **XIII. SEVERABILITY**

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstance is held invalid, the remainder of the certification or the application of such provision to other circumstances shall not be affected thereby.

### **XIV. ENFORCEMENT**

A. The terms, conditions, requirements, limitations and restrictions set forth in these Conditions are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, and 403.859 through 403.861, F.S., as applicable. Any noncompliance by the Licensee

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with these Conditions constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, license termination, license revocation, or license revision. The Licensee is placed on notice that the Department may review this certification periodically and may initiate enforcement action for any violation of these Conditions. Abandonment of the certified facility will be considered grounds for enforcement action.

B. All records, notes, monitoring data and other information relating to the construction or operation of the certified facility which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the certified facility and arising under the Florida Statutes or Department rules, subject to the restrictions in Sections 403.111 and 403.73, F.S. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

*[Sections 403.121, 403.131, 403.141, 403.151, 403.161, 403.514, 403.533, and 403.9419, F.S.; subsections 62-4.160(1) and 62-4.160(9), F.A.C.]*

### **XV. REVOCATION OR SUSPENSION**

The certification shall be final unless revised, revoked or suspended pursuant to law. This certification may be suspended or revoked pursuant to Sections 403.512, 403.532, and 403.9425, F.S. This license is valid only for the specific processes and operations identified in the SCA or approved in the final order of certification and indicated in the testimony and exhibits in support of certification. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department. Any enforcement action, including suspension and revocation, shall only affect the portion(s) of the certified facility that are the cause of such action, and other portions of the certified facility shall remain unaffected by such action.

*[Sections 403.512, 403.532, and 403.9425, F.S.; subsection 62-4.160(2), F.A.C.]*

### **XVI. REGULATORY COMPLIANCE**

As provided in Sections 403.087(7) and 403.722(5), F.S., the issuance of this license does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This license is not a waiver of or approval of any other Department license/permit that may be required for other aspects of the certified facility which are not addressed in this license. This license does not relieve the Licensee from liability for harm or injury to human health or welfare, animal, or plant life, or public or private property caused by the construction or operation of this certified facility, or from penalties therefore.

*[subsections 62-4.160(3) and 62-4.160(5), F.A.C.]*

### **XVII. HERBICIDES**

For licenses issued under the TLISA and/or NGSPA herbicides applied at the site or in any ROW shall only be those registered by the U.S. Environmental Protection Agency and which have state approval. Herbicide application rates and concentrations will be in accordance with label directions and will be carried out by a licensed applicator, in compliance with all federal, state and local regulations. Herbicide applications shall be selectively applied to targeted

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vegetation. Broadcast application of herbicide shall not be used unless effects on non-targeted vegetation are minimized.

*[Sections 403.061, 403.088, 487.031, and 487.041, F.S.]*

### **XVIII. CIVIL AND CRIMINAL LIABILITY**

A. This certification does not relieve the Licensee from civil or criminal penalties for noncompliance with any conditions of this certification, applicable rules or regulations of the Department, or any other state statutes or regulations which may apply.

*[Sections 403.141, 403.161, 403.511, 403.531, and 403.9416, F.S.]*

### **XIX. USE OF STATE LANDS**

A. The issuance of this certification conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

B. If any portion of the certified facility is located on sovereign submerged lands, state-owned uplands, or within an aquatic preserve, then the certified facility must comply with the applicable portions of Chapters 18-2, 18-20, and 18-21, F.A.C., and Chapters 253 and 258, F.S. If any portion of the certified facility is located on sovereign submerged lands, the Licensee must submit section G of the Joint Application for Environmental Resource Permits to the Department prior to construction. If any portion of the certified facility is located on state-owned uplands, the Licensee must submit an Upland Easement Application to the Department prior to construction.

C. If a portion of the certified facility is located on sovereign submerged lands or state-owned uplands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, then the proposed activity on such lands requires a proprietary authorization. Under such circumstances, the proposed activity is not exempt from the need to obtain a proprietary authorization. The Department has the responsibility to review and take action on requests for proprietary authorization in accordance with Rules 18-2.018 or 18-21.0051, F.A.C.

D. The Licensee is hereby advised that Florida law states: “No person shall commence any excavation, construction, or other activity involving the use of sovereign or other state lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund or the Department of Environmental Protection under Chapter 253, F.S., until such person has received from the Board of Trustees of the Internal Improvement Trust Fund the required lease, license, easement, or other form of consent authorizing the proposed use.” Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

E. The terms, conditions, and provisions of any required lease or easement issued by the State shall be met. Any construction activity associated with the certified facility shall not commence on sovereign submerged lands or state owned uplands, title to which is held by the

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Board of Trustees of the Internal Improvement Trust Fund, until all required lease or easement documents have been executed.

*[Chapters 253 and 258, and Sections 403.511, 403.531, and 403.9416, F.S.; Chapter 3.1.1. of the B.O.R.; Chapters 18-2, 18-14, 18-21, 62-340, and subsections 62-343.900(1) and 62-4.160(4), F.A.C.; Upland Easement Application and Section G of the Environmental Resource Permit Application Form.]*

### **XX. PROCEDURAL RIGHTS**

Except as specified in Chapter 403, F.S., or Chapter 62-17, F.A.C., no term or condition of certification shall be interpreted to preclude the post-certification exercise by any party of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

*[Sections 403.511(5)(c), 403.531(5), and 403.9416(4), F.S.]*

### **XXI. AGENCY ADDRESSES FOR POST-CERTIFICATION SUBMITTALS AND NOTICES**

Where a Condition requires post-certification submittals and/or notices to be sent to a specific agency, the following agency addresses shall be used unless the Conditions specify otherwise or unless the Licensee and the Department are notified in writing of an agency's change in address for such submittals and notices:

Florida Department of Environmental Protection  
Siting Coordination Office, MS 48  
3900 Commonwealth Blvd.  
Tallahassee, FL 32399-3900

Florida Department of Environmental Protection  
Southwest District Office  
13051 N Telecom Parkway  
Temple Terrace, FL 33637-0926

Florida Department of Community Affairs  
Office of the Secretary  
2555 Shumard Oak Blvd.  
Tallahassee, FL 32399-2100

Florida Fish & Wildlife Conservation Commission  
Office of Policy and Stakeholder Coordination  
620 South Meridian Street  
Tallahassee, FL 32399-1600

Florida Department of Transportation  
District Administration  
605 Suwannee Street  
Tallahassee, FL 32399-0450

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Florida Department of Agriculture and Consumer Services  
Division of Forestry  
3125 Conner Boulevard  
Tallahassee, FL 32399-1650

Tampa Bay Regional Planning Council  
Office of the Executive Director  
4000 Gateway Centre Blvd., Ste. 100  
Pinellas Park, FL 33782

Southwest Florida Water Management District  
Office of General Counsel  
2379 Broad Street  
Brooksville, FL 34604-6899

Florida Department of State  
Division of Historical Resources  
500 S. Bronough Street  
Tallahassee, FL 32399-0250

Hillsborough County  
Office of General Council  
601 East Kennedy Blvd.  
County Center, 27<sup>th</sup> Floor  
Tampa, FL 33602

Environmental Protection Commission of Hillsborough County  
Office of General Council  
3629 Queen Palm Drive  
Tampa, FL 33619

*[Section 403.511, 403.531, and 403.9416, F.S.]*

### **XXII. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS**

#### ***A. Purpose of Submittals***

Conditions which provide for the post-certification submittal of information to DEP or other agencies by the Licensee are for the purpose of facilitating the agencies' monitoring of the effects arising from the location of the certified facility and the construction and maintenance of the certified facility. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with these Conditions, without further agency action.

#### ***B. Filings***

All post-certification submittals of information by Licensee are to be filed with the SCO, the DEP District Office(s), and any other agency that is entitled to receive a submittal pursuant to these Conditions. All filings with the SCO shall be submitted in electronic .pdf format only, unless otherwise requested. Each submittal shall clearly identify the certified



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facility name, PA#, and the condition number/s (i.e. Section X, Condition XX.y.(z)) requiring the submittal. As required by Section 403.5113(2), F.S., each post-certification submittal will be reviewed by each agency with regulatory authority over the matters addressed in the submittal on an expedited and priority basis.

### ***C. Completeness***

DEP shall review each post-certification submittal for completeness. This review may include consultation with the other agency/ies receiving the post-certification submittal with regulatory jurisdiction over the matter addressed in the submittal. DEP's finding of completeness shall specify the area of the certified facility affected, and shall not delay further processing of the post-certification submittal for non-affected areas. If any portion of a post-certification submittal is found to be incomplete, the Licensee shall be so notified. Failure to issue such a notice within 30 days after filing of the submittal shall constitute a finding of completeness. Subsequent findings of incompleteness, if any, shall address only the newly filed information.

*[subparagraph 62-17.191(1)(c) 2, F.A.C.]*

### ***D. Interagency Meetings***

DEP may conduct an interagency meeting with other agencies that received a post-certification submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether compliance with these Conditions has been provided. Failure of DEP to conduct an interagency meeting or failure of any agency to attend an interagency meeting shall not be grounds for DEP to withhold a determination of compliance with these Conditions nor to delay the timeframes for review established by these Conditions. At DEP's request, the Licensee shall conduct a field inspection with the agency representative in conjunction with the interagency meeting.

### ***E. Determination of Compliance***

DEP shall give written notification within 90 days, to the Licensee and the other agency/ies to which the post-certification information was submitted of DEP's determination of whether there is demonstration of compliance with these Conditions. If it is determined that compliance with these Conditions has not been provided, the Licensee shall be notified with particularity of the deficiencies and possible corrective measures suggested. Failure to notify Licensee in writing within 90 days of receipt of a complete post-certification submittal shall constitute a determination of compliance.

### ***F. Commencement of Construction***

If DEP does not object within the time period specified in paragraph E. above, Licensee may begin construction pursuant to the terms of these Conditions and the subsequently submitted construction details.

### ***G. Revisions to Design Previously Reviewed for Compliance***

If revisions to site-specific designs occur after submittal, the Licensee shall submit revised plans prior to construction for review.

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### **H. Variation to Submittal Requirements**

DEP, in consultation with the appropriate agencies that have regulatory authority over a matter to be addressed in a post-certification submittal, and Licensee may jointly agree to vary any of the post-certification submittal requirements, provided the information submitted is sufficient to provide reasonable assurances of compliance with these Conditions.

*[Sections 120.569, 373.413, 373.416, 403.511, 403.531, and 403.9416, F.S.; Rules 62-17.191 and 62-17.205, F.A.C.]*

### **XXIII. POST-CERTIFICATION SUBMITTAL REQUIREMENTS SUMMARY**

Within 90 days after certification, and within 90 days after any subsequent modification or certification, the Licensee shall provide the Department a complete summary of those post-certification submittals that are identified in these Conditions where due-dates for the information required of the Licensee are identified. A summary shall be provided as a separate document for each transmission line, if any. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the SCO, in a sortable spreadsheet, via email, in the format identified below or equivalent.

Condition Number	Requirement and Timeframe	Due Date	Name of Agency or Agency Subunit to whom the submittal is required to be provided

*[Section 403.5113, F.S.; Subsection 62-17.191(3), F.A.C.]*

### **XXIV. POST CERTIFICATION AMENDMENTS**

If, subsequent to certification, a Licensee proposes any material change to the SCA and revisions or amendments thereto, as certified, the Licensee shall submit a written request for amendment and a description of the proposed change to the SCA to the Department. Within 30 days after the receipt of a complete request for an amendment, the Department shall determine whether the proposed change to the application requires a modification to the Conditions.

A. If the Department concludes that the change would not require a modification to the Conditions, the Department shall provide written notification of the approval of the proposed amendment to the Licensee, all agencies, and all other parties to the Certification.

B. If the Department concludes that the change would require a modification to the Conditions, the Department shall provide written notification to the Licensee that the proposed

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change to the SCA requires a request for modification pursuant to Sections 403.516 and 403.5317, F.S.

*[Section 403.5113, F.S.]*

### **XXV. MODIFICATION OF CERTIFICATION**

A. Pursuant to Sections 403.516(1)(a), 403.5315(1), 403.9418(1)(a), 120.569(2)(n), F.S., and Rule 62-17.211, F.A.C., the Siting Board hereby delegates the authority to the Department to modify, after notice and receipt of no objection by a party or other substantially affected person, any condition of certification which would not otherwise require approval by the Siting Board. In addition, the Department is delegated the authority to modify conditions as follows:

The certification shall be modified to conform to subsequent DEP-issued amendments, modifications, or renewals of any separately issued Prevention of Significant Deterioration (PSD) permit, Title V Air Operation permit, Underground Injection Control (UIC) permit, or National Pollutant Discharge Elimination System (NPDES) permit for the certified facility. In the event of a conflict, the more stringent of the conditions of such permits or of these Conditions shall be controlling.

B. Any anticipated facility expansions, production increases, or process modifications which may result in new, different or increased discharge or emission of pollutants, change in fuel, or expansion in generating capacity must be reported by submission of an appropriate request for an amendment, modification, or certification.

C. Any anticipated facility change that results in a change to the site delineation or the delineation of the certified area, attached hereto as part of Attachment A, must be accompanied by a map or aerial photo showing the proposed new boundaries of the Site and/or certified area. The Department may consider any such change to be a modification to the COCs. Within 60 days after completion of construction of the approved facility change, the Licensee shall provide the information required by Section A. General Conditions, Condition I. Scope, paragraphs D, E, or F as appropriate.

D. The Licensee may file a petition for modification with the Department, or the Department may initiate the modification upon its own initiative.

*[Sections 120.569(2)(n), 403.511(5)(a), 403.516, 403.5315, and 403.9418, F.S.; Rule 62-17.211 and Chapter 62-343, F.A.C.]*

### **XXVI. INCORPORATION OF EXISTING STATE AND LOCAL PERMITS/LICENSES**

The operation of the certified facility shall be in accordance with all applicable provisions of any state or local government regulation. All state and locally issued permits are intended to be incorporated herein, such that the Licensee shall comply with the substantive provisions and limitations set forth in those permits. The inadvertent omission of any state or locally issued permit/approval from these Conditions can be remedied by a modification of the Conditions to include provisions from the state or locally issued permit/approval.

At any time following certification, should the Licensee become aware of any state or locally issued permit/approval not included herein, the Licensee shall promptly notify the SCO for incorporation into these Conditions. Likewise, when the Department is made aware of any

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separately issued permits/approvals that were inadvertently not included in the Conditions, the Conditions will be modified to incorporate the substantive provisions and limitations of any such permit/approval.

### **XXVII. COASTAL ZONE CONSISTENCY**

Pursuant to Sections 373.428 and 403.511, F.S., certification of the facility constitutes the State's concurrence that the licensed activity or use is consistent with the federally approved program under the Florida Coastal Management Act.

*[Sections 373.428, 380.23 and 403.511(7), F.S.]*

### **XXVIII. FINANCIAL RESPONSIBILITY**

The Department may require the Licensee to submit proof of financial responsibility and may require the Licensee to post an appropriate bond in those instances where the Department is authorized to require proof of financial responsibility or a bond pursuant to a law or Department rule that is applicable to the certified facility.

*[Rule 62-4.110, F.A.C.]*

### **XXIX. TRANSFER OF CERTIFICATION**

A. This certification is transferable in whole or in part, upon Department approval, to an entity determined to be able to comply with these Conditions. A transfer of certification of all or part of the certified facility may be initiated by the Licensee's filing of a Notice of Intent to Transfer Certification with the Department. The notice of intent shall identify the intended new certification holder or Licensee and the identity of the entity responsible for compliance with the certification. Upon the filing with the Department of a written agreement from the intended Licensee/Transferee to abide by all Conditions of Certification and applicable laws and regulations, the transfer shall be approved unless the Department objects to the transfer on the grounds of the inability of the new Licensee to comply with the Conditions of Certification, specifies in writing its reasons therefore, and gives notice and opportunity to petition for a Section 120.57, F.S., administrative hearing. Upon approval, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

B. In the event of the dissolution of a certified Licensee, the Department may transfer certification to successor entities which are determined to be competent to construct, operate and maintain the certified facility in accordance with the conditions of certification and which are proper applicants as defined by the PPSA, TLSA and/or NGPSA. Upon determination that such a successor entity complies with the above, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

*[Chapter 120, F.S.; Rule 62-17.211, F.A.C.]*

### **XXX. LABORATORIES AND QUALITY ASSURANCE**

Chemical, physical, biological, microbiological and toxicological data collected as a requirement of these Conditions must be reliable, and collected and analyzed by scientifically sound procedures. Unless otherwise specified in these Conditions, the Licensee shall adhere to the minimum field and laboratory quality assurance, methodological and reporting requirements

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of the Department as set forth in Chapter 62-160, F.A.C. Standard Operating Procedures can be downloaded from the following website: <http://www.dep.state.fl.us/labs/qa/sops.htm>.

*[Rule 62-160, F.A.C.]*

### **XXXI. ENVIRONMENTAL RESOURCES**

#### **A. General**

##### **1. Submittals for Construction Activities**

a. Prior to the commencement of construction of new facilities and/or associated facilities the Licensee shall provide to the appropriate DEP District's Environmental Resource Permitting Section(s) for review, all information necessary for a complete *Joint Application for Environmental Resource Permit* (ERP), DEP Forms 62-343.900(1), or 62-346.900(1) and 62-312.900(1), as applicable.

These forms may be submitted; a) concurrently with a SCA, an amendment request, or a petition for modification; or b) as a post-certification submittal following approval of a project through certification, an amendment, or a modification. Such ERP applications, once received, shall be reviewed in accordance with the standards and criteria for issuance of an ERP, including all the provisions related to reduction and elimination of impacts, conditions for issuance, additional conditions for issuance, and mitigation contained in Chapters 62-330, 62-341, 62-343, and 62-346, F.A.C., as applicable unless otherwise stated in these Conditions.

Those forms submitted as part of a site certification, an amendment, or modification, shall be processed concurrently with, and under the respective certification, amendment, or modification procedures. Those forms submitted as a post-certification submittal (after project approval and prior to construction) shall be processed in accordance with Section A. Condition XXII. Procedures for Post-Certification Submittals.

No construction shall commence until the appropriate notification from the Department has been received, or in the case of post-certification submittals the time period for notification by the Department has expired

b. The Licensee shall submit a survey of wetland and surface water areas as delineated in accordance with Chapter 62-340, F.A.C., and verified by appropriate agency staff for Department approval.

*[Chapter 62-340, F.A.C.]*

*[Section 373.416, F.S.; subsections 62-312, 62-343.070(2) and 62-346.070(2), paragraph 62-343.090(2)(b), and Forms 62-343.900(1) and 62-346.900(1), F.A.C.]*

2 Construction, operation and maintenance of the proposed project (including any access roads and structures constructed within wetlands and other surface waters, and/or associated facilities) shall satisfy any applicable non-procedural requirements in the Department rules.

*[Section 373.414, F.S.; paragraph 62-17.665(7)(d), F.A.C.]*

3. Any delineation of the extent of a wetland or other surface water submitted as part of the DEP ERP Application Form required by Condition A.1.a. above,

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including plans or other supporting documentation, shall not be considered binding on the Department unless a specific condition of this license or a formal wetlands jurisdictional determination under Section 373.421(2), F.S., provides otherwise.

*[Sections 373.421, 403.504, 403.523, and 403.9404, F.S.]*

### **B. Surface Water Management**

1. Surface water management systems will be evaluated under Part IV of Chapter 373, F.A.C. following submittal of Form 62-343.900(1) or 62-346.900(1), as applicable, to the appropriate office of the Department.

2. All construction, operation, and maintenance of the surface water management system(s) for the certified facilities shall be as set forth in the plans, specifications and performance criteria contained in the SCA and approved by this license. The Department approved surface water management system operation/management plans shall be incorporated herein as Attachment B, as well as any subsequent alterations, amendments, and/or modifications thereto. Any subsequent alterations, amendments, or modification to the approved surface water management system and/or operation/management plans shall require prior approval from the Department.

3. Immediately prior to, during construction, and for the period of time after construction to allow for stabilization of all disturbed areas, the Licensee shall implement and maintain erosion and sediment control best management practices, such as silt fences, erosion control blankets, mulch, sediment traps, polyacrylamide (PAM), temporary grass seed, permanent sod, and floating turbidity screens to retain sediment on-site and to prevent violations of state water quality standards. These devices shall be installed, used, and maintained at all locations where the possibility of transferring suspended solids into the receiving waterbody exists due to the licensed work, and shall remain in place at all locations until construction is completed and soils are permanently stabilized. All best management practices shall be in accordance with the guidelines and specifications described in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection, 2007) unless a project-specific erosion and sediment control plan is approved as part of this License. If project-specific conditions require additional measures during any phase of construction or operation to prevent erosion or control sediments beyond those specified in the approved erosion and sediment control plan, the Licensee shall implement additional best management practices as necessary, in accordance with the guidelines and specifications in *the State of Florida Erosion and Sediment Control Designer and Reviewer Manual* (Florida Department of Transportation and Florida Department of Environmental Protection by HydroDynamics Incorporated in cooperation with Stormwater Management Academy, June 2007). The Licensee shall correct any erosion or shoaling that causes adverse impacts to the water resources as soon as practicable. Once project construction has been deemed complete, including the re-stabilization of all side slopes, embankments and other disturbed areas, and before conversion from the operation and maintenance phase, all silt screens and fences, temporary baffles, and other materials that are no longer required for erosion and sediment control shall be removed.

4. The Licensee shall complete construction of all aspects of the surface water management system described in the DEP ERP Application Form, as part of a postcertification submittal, amendment, or modification, including water quality treatment

## SECTION A: GENERAL CONDITIONS

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features, and discharge control facilities prior to use of the portion of the certified facility being served by the surface water management system.

5. At least 48 hours prior to the commencement of construction of any new surface water management system authorized by this license, the Licensee shall submit to the Department a written notification of commencement using an "Environmental Resource Permit Construction Commencement Notice" (DEP Form 62-343.900(3) or 62-346.900(3), F.A.C. as applicable), indicating the actual start date and the expected completion date. When the duration of construction will exceed one year, the Licensee shall submit construction status reports to the Department on an annual basis utilizing an "Annual Status Report Form" (DEP Form No. 62-343.900(4), F.A.C.). Status Report Forms shall be submitted the following June of each year.

6 Each phase or independent portion of the approved system must be completed in accordance with the submitted DEP Form prior to the operation of site infrastructure located within the area served by that portion or phase of the system.

7. Within 30 days after completion of construction of any new portions of the surface water management system, the Licensee shall submit to the SCO and DEP District Office a written statement of completion and certification by a registered professional engineer (P.E.), or other appropriate registered professional, as authorized by law, utilizing the required "As-Built Certification by a Registered Professional" (DEP Form 62-343.900(5) or 62-346.900(4), F.A.C., as applicable). Additionally, if deviations from the approved drawings are discovered, the As-Built Certification must be accompanied by a copy of the approved drawings with deviations noted.

8. Any substantial deviation from the approved drawings, exhibits, specifications or COCs, may constitute grounds for revocation or enforcement action by the Department. Examples of substantial deviations may include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

9. Prior to the operation of any new surface water management system, the Licensee shall submit to the Department a "Request for Transfer of Environmental Resource Permit Construction Phase to Operation Phase" (DEP Form 62-343.900(7), F.A.C.). The operation phase of any new surface water management system approved by the Department shall not become effective until the Licensee has complied with the requirements of the conditions herein, the Department determines the system to be in compliance with the approved plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system.

*[Chapters 62-25, 62-302, 62-330, 62-343 62-346, and Rule 62-4.242, F.A.C.]*

### **C. Wetland and Other Surface Water Impacts**

1. All certified facilities shall be constructed in a manner which will avoid or minimize adverse impacts to on-site and/or adjacent wetlands or other surface waters to the extent feasible. When unavoidable impacts to wetlands will occur, an applicant may propose and the Department shall consider mitigation to offset otherwise unpermissible activities under the Environmental Resource Permit review process pursuant to Condition A.1.a above.

2. Proposed mitigation plans submitted with the DEP ERP Application forms required in Condition A.1.a. above, or submitted and approved as part of an amendment, modification, or certification, and that are deemed acceptable by DEP, shall include applicable

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## SECTION A: GENERAL CONDITIONS

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construction conditions, success criteria and monitoring plans and shall be incorporated into these Conditions as Attachment C.

*[Sections 373.413, 373.414, 373.4145, 403.511, 403.531, 403.814(6), and 403.9416, F.S.; Chapters 62-330, 62-341 62-342, 62-343, 62-345, and 62-346, F.A.C.]*

### **XXXII. THIRD PARTY IMPACTS**

The Licensee is responsible for maintaining compliance with these Conditions even when third party activities authorized by the Licensee occur in or on the certified area. Such third party activities authorized by the Licensee may include but are not limited to mining, hunting, and timbering.

*[Sections 403.506(1), 403.524(1), and 403.9405(1), F.S.]*

### **XXXIII. FACILITY OPERATION**

The Licensee shall properly operate and maintain the certified facility and systems of treatment and control (and related appurtenances) that are installed and used by the Licensee to achieve compliance with these Conditions, as required by the final order of certification, these Conditions, or a post-certification amendment or modification. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the final order of certification, these Conditions, or a post-certification amendment or modification. Further, the Licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the non-complying event.

*[subsection 62-4.160(6), F.A.C.]*

### **XXXIV. RECORDS MAINTAINED AT THE FACILITY**

- A. These Conditions or a copy thereof shall be kept at the work site.
- B. Upon request, the Licensee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
- C. The Licensee shall hold at the site, or other location designated by these Conditions, records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation required by these Conditions, copies of all reports required by these Conditions, and records of all data used to complete the SCA for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
- D. Records of monitoring information shall include:
  - 1. the date, exact place, and time of sampling or measurements;
  - 2. the person responsible for performing the sampling or measurements;
  - 3. the dates analyses were performed;
  - 4. the person responsible for performing the analyses;



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## SECTION A: GENERAL CONDITIONS

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5. the analytical techniques or methods used; and,
6. the results of such analyses.

*[subsection 62-4.160(12) and paragraph 62-4.160(14)(b), F.A.C.]*

### **XXXV. WATER DISCHARGES**

#### **A. Discharges**

1. The Licensee shall not discharge to surface waters wastes which are acutely toxic, or present in concentrations which are carcinogenic, mutagenic, or teratogenic to human beings or to significant locally occurring wildlife or aquatic species. The Licensee shall not discharge to ground waters wastes in concentrations which, alone or in combination with other substances, or components of discharges (whether thermal or non-thermal) are carcinogenic, mutagenic, teratogenic, or toxic to human beings (unless specific criteria are established for such components in Rule 62-520.420, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

2. All discharges and activities must be conducted so as to not cause a violation of the water quality standards set forth in Chapters 62-4, 62-302, 62-520, and 62-550, F.A.C., including the provisions of Rules 62-4.243, 62-4.244, and 62-4.246, F.A.C., the antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., subsections 62-4.242(2) and (3), F.A.C., and Rule 62-302.300, F.A.C., and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C.;

3. All dewatering discharges must be in compliance with Rule 62-621.300, F.A.C.

*[Chapters 62-4, 62-302, 62-520, 62-550, and 62-620, F.A.C., and Rule 62-621.300, F.A.C.]*

#### **B. Wastewater Incident Reporting**

1. The Licensee shall report to the appropriate district office any noncompliance with industrial wastewater requirements which may endanger health or the environment. Any information shall be provided orally within 24 hours from the time the Licensee becomes aware of the circumstances.

The Licensee shall provide the following information, to the extent known, to the Southwest District Office in the 24-hr oral report:

- a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
- b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
- c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
- d. Any unauthorized discharge to surface or ground waters.

## SECTION A: GENERAL CONDITIONS

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A written submission shall also be provided within five days of the time the Licensee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance including exact dates and time, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance.

The following shall be included as information which must be reported orally within 24 hours under this condition:

- a. Any unanticipated bypass which causes any reclaimed water or effluent to exceed any permit limitation or results in an unpermitted discharge,
- b. Any upset which causes any reclaimed water or the effluent to exceed any limitation in the permit,
- c. Violation of a maximum daily discharge limitation for any of the pollutants specifically listed in the permit for such notice, and
- d. Any unauthorized discharge to surface or ground waters.

2. For unauthorized releases or spills of treated or untreated wastewater reported that are in excess of 1,000 gallons per incident, or where information indicates that public health or the environment will be endangered, oral reports shall be provided to the Department by calling the STATE WARNING POINT TOLL FREE NUMBER (800) 320-0519, as soon as practical, but no later than 24 hours from the time the Licensee becomes aware of the discharge. The Licensee, to the extent known, shall provide the following information to the State Warning Point:

- a. Name, address, and telephone number of person reporting;
- b. Name, address, and telephone number of permittee or responsible person for the discharge;
- c. Date and time of the discharge and status of discharge (ongoing or ceased);
- d. Characteristics of the wastewater spilled or released (untreated or treated, industrial or domestic wastewater);
- e. Estimated amount of the discharge;
- f. Location or address of the discharge;
- g. Source and cause of the discharge;
- h. Whether the discharge was contained on-site, and cleanup actions taken to date;
- i. Description of area affected by the discharge, including name of water body affected, if any; and
- j. Other persons or agencies contacted.

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## SECTION A: GENERAL CONDITIONS

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3. If the oral report has been received within 24 hours, the noncompliance has been corrected, and the noncompliance did not endanger health or the environment, the Department shall waive the written report.

*[Chapter 403, F.S.; subsection 62-620.610(20), F.A.C.]*

### **XXXVI. SOLID AND HAZARDOUS WASTE**

#### **A. Solid Waste**

The Licensee shall comply with all applicable provisions of Chapters 62-701 and 62-702, F.A.C., for any solid waste generated within the certified facility during construction and/or operation.

*[Chapters 62-701 and 62-702, F.A.C.]*

#### **B. Hazardous Waste**

The Licensee shall comply with all applicable non-procedural provisions of DEP Chapter 62-730, F.A.C., for any hazardous waste generated within the certified facility. An EPA identification number must be obtained before beginning hazardous waste activities, except for Conditionally Exempt Small Quantity Generators (CESQGs) who are exempt from this regulation under Title 40 Code of Federal Regulations (CFR), §261.5. CESQGs generate no more than 100 kg (220 lbs) of hazardous waste in any month.

*[Chapter 62-730, F.A.C.]*

#### **C. Hazardous Substance Release Notification**

1. Any owner or operator of a facility who has knowledge of any release of a hazardous substance from a facility in a quantity equal to or exceeding the reportable quantity in any 24-hour period shall notify the Department by calling the STATE WARNING POINT NUMBER, (850) 488-1320, within one working day of discovery of the release.

2. Releases of mixtures and solutions are subject to these notification requirements only where a component hazardous substance of the mixture or solution is released in a quantity equal to or greater than its reportable quantity.

3. Notification of the release of a reportable quantity of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter of the particles released is larger than 100 micrometers (0.004 inches).

*[Chapter 62-150, F.A.C.]*

#### **D. Water Quality Reporting Requirements for the Solid Waste Program**

All solid and/or hazardous waste water quality monitoring reports and all solid and/or hazardous waste ground water, surface water and leachate analytical results shall be submitted electronically. Water quality monitoring reports shall be submitted in a pdf format. The water quality data Electronic Data Deliverable (EDD) shall be provided to the Department in an electronic format consistent with requirements for importing the data into the Department's databases. Water quality monitoring reports shall be signed and sealed by a Florida registered professional geologist or professional engineer with experience in hydrogeological investigations and shall include the following:

## SECTION A: GENERAL CONDITIONS

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1. Cover letter;
2. Summary of exceedances and recommendations;
3. Ground water contour maps;
4. Chain of custody forms;
5. Water levels, water elevation table;
6. Ground Water Monitoring Report Certification, using the appropriate Department form;
7. Appropriate sampling information on Form FD 9000-24 (DEP-SOP-001/01); and,
8. Laboratory and Field EDDs and error logs, as applicable.

All submittals in response to this specific condition shall be sent both to:

Florida Department of Environmental Protection  
Southwest District Office  
13051 N Telecom Parkway  
Temple Terrace, FL 33637-0926

And to:

Florida Department of Environmental Protection  
Solid Waste Section  
2600 Blair Stone Road, MS 4565  
Tallahassee, Florida, 32399-2400

And to:

Florida Department of Environmental Protection  
Siting Coordination Office, MS 48  
3900 Commonwealth Blvd.  
Tallahassee, FL 32399-3900

*[Rules 62-160.110, 62-160.240, 62-160.340, and 62-730.225, F.A.C.]*

### **XXXVII. STORAGE TANK SYSTEMS**

Registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems that store regulated substances shall be in accordance with Chapters 62-761 and 62-762, F.A.C., in order to minimize the occurrence and environmental risks of releases and discharges. Mineral acid storage tank systems are subject only to Rule 62-762.891, F.A.C.

#### ***A. Incident Notification Requirements.***

Notification of the discovery of the loss of a regulated substance from a storage tank system exceeding 100 gallons on impervious surfaces, other than secondary containment, such as driveways, airport runways, or other similar asphalt or concrete surfaces, provided that the loss does not come in contact with pervious surfaces; or of the discovery of any other incident listed in subsections 62-761.450(2) or 62-762.451(2), F.A.C., shall be made to the

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## SECTION A: GENERAL CONDITIONS

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County on Incident Notification Form 62-761.900(6) within 24 hours or before the close of the County's next business day.

### ***B. Discharge Reporting Requirements***

Upon discovery of an unreported discharge, the owner or operator shall report to the County on Discharge Report Form 62-761.900(1) within 24 hours or before the close of the County's next business day those items listed in paragraph 62-761.450(3)(a), F.A.C., including a spill or overfill event of a regulated substance to soil or another pervious surface, equal to or exceeding 25 gallons, unless the regulated substance has a more stringent reporting requirement specified in C.F.R. Title 40, Part 302.

### ***C. Discharge Cleanup***

If a discharge of a regulated substance occurs at a facility, actions shall be taken immediately to contain, remove, and abate the discharge under all applicable Department rules (for example, Chapter 62-770, F.A.C., Petroleum Contamination Site Cleanup Criteria). Owners and operators are advised that other federal, state, or local requirements may apply to these activities. If the contamination present is subject to the provisions of Chapter 62-770, F.A.C., corrective action, including free product recovery, shall be performed in accordance with that Chapter.

### ***D. Out of Service and Closure Requirements***

Storage tank systems shall be taken out-of-service and/or closed as necessary in accordance with Rules 62-761.800 and 62-762.801, F.A.C., as applicable.

*[Chapters 62-761 and 62-762, F.A.C.]*

## **XXXVIII. NOISE**

The Licensee shall comply with applicable local noise ordinances or standards imposed by zoning during construction and operation of the certified facility.

## **XXXIX. SCREENING**

The Licensee shall comply with applicable local government requirements concerning the screening of the certified facility.

## **XL. ELEVATORS**

The Licensee shall comply with all applicable requirements of Chapter 399, F.S. concerning elevator safety within the certified facility.

*[Chapter 399, F.S.]*

## **XLI. FIRE PROTECTION**

The Licensee shall comply with all applicable codes and standards of the National Fire Safety Code within the certified facility.

*[Chapter 69A-60, F.A.C.]*

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## SECTION B: SPECIFIC CONDITIONS

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### SECTION B. SPECIFIC CONDITIONS

#### I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

##### A. *Environmental Control Programs*

1. An environmental control program shall be established under the supervision of a qualified person to assure that all construction activities conform to good environmental practices and the applicable conditions of certification.
2. If unexpected or harmful effects or evidence of irreversible environmental damages are detected during construction, the Licensee shall notify the DEP Southwest Florida District Office (SWD) by telephone, 813-632-7600, during the working day that the effect or damage occurs. If the occurrence is after normal business hours, the Licensee shall report any condition that poses a public health threat to the State Warning Point at telephone number (850) 413-9911 or (850) 413-9912. The Licensee shall confirm this in writing to the SWD, 13051 N. Telecom Parkway, Temple Terrace, Fl. 33637, within seventy-two (72) hours of becoming aware of such conditions, and shall provide in writing an analysis of the problem and a plan to eliminate or significantly reduce the harmful effects of damage.

##### B. *Reporting*

1. Starting three (3) months after certification, a quarterly construction status report shall be submitted to the SWD. The report shall be a short narrative describing the progress of construction.
2. Upon completion of construction, the SWD will be notified in order that an operational inspection can be performed.

##### C. *Transmission Lines*

1. The directly associated transmission lines from the Resource Recovery Facility electric generators to the existing Tampa Electric Company (TECO) substation shall be along the existing abutting TECO transmission line right-of-way.
2. The directly associated transmission lines from the Resource Recovery Facility electric generator to the TECO Substation shall be kept cleared without the use of herbicides.

##### D. *Construction Unit 4*

1. Weir Modification:  
Prior to start of construction of the Facility expansion project, Hillsborough County shall install the approved weir modifications on the outfall control structures of Ponds "B" and "C".
2. Construction Observation:  
Hillsborough County shall retain the design engineer, or other professional engineer registered in Florida, to conduct on-site observation of construction and assist with the as-built certification requirements of this project. Hillsborough County shall inform the DEP District in writing of the name, address and phone number of the professional engineer so employed. This information shall be submitted prior to construction.
3. Air:

## SECTION B: SPECIFIC CONDITIONS

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a. Unconfined Particulate Matter Emissions: Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter include the following requirements consistent with current practices by the Licensee: All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. The unpaved areas of the facility will be maintained and either sodded or landscaped. Hoods, fans, filters, or similar equipment will be used to contain, capture, and/or vent particulate matter. The conveyor systems of the Facility will be enclosed or covered. The ash shall be wetted before being stored in the ash handling building. 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 or leaving) shall be under negative air pressure. [Rule 62-296.320(4)(c)2., F.A.C.; and, items proposed by the applicant.]

b. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

### **E. Water Management**

#### **1. Inspection Reports:**

Hillsborough County shall submit to the DEP's Southwest District Office inspection reports for the wet detention stormwater treatment systems on-site two years after operation and every two years thereafter in the form required by the Department, FDEP Form #: 62-343.900(6), *Inspection Certification*.

#### **2. Wet Detention Stormwater Ponds:**

The removal of littoral shelf vegetation (including cattails) from wet detention ponds is prohibited unless otherwise approved by the Department. Removal includes dredging, the application of herbicide, cutting, and the introduction of grass carp. Any questions regarding authorized activities within the wet detention ponds shall be addressed to the DEP's Southwest District Office.

#### **3. Water Discharges:**

a. Any discharges from the on-site stormwater treatment system via the emergency overflow structure shall meet State Water Quality Standards, Chapters 62-302 and 62-520, FAC, shall comply with Hillsborough County and Southwest Florida Water Management District regulations, and shall comply with Chapter 62-25, F.A.C.

b. Cooling tower blowdown shall not be discharged to surface waters.

## **II. DEPARTMENT OF TRANSPORTATION**

A. Traffic control during plant construction and maintenance will be subject to the standards in the Manual on Uniform Traffic Control Devices; Statewide Minimum Level of Service Standards, Chapter 14-94, Florida Administrative Code; Florida Department of Transportation's Roadway and Traffic Design Standards; and Florida Department of Transportation Standard Specifications for Road and Bridge Construction, whichever is more stringent.

B. Operation of overweight or overdimensional loads by the applicant on State transportation facilities during the construction and operation of the Unit 4, shall be subject to

## SECTION B: SPECIFIC CONDITIONS

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safety and permitting requirements of Chapter 316, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, F.A.C.

C. Any new access to the State Highway System shall follow the provisions of Chapter 14-96, State Highway System Connection Permits, Administrative Process, and Chapter 14-97, State Highway Access Management Classification System and Standards, F.A.C.

D. Any use of State of Florida right of way and certain activities on State transportation facilities will be subject to the requirements of the Department of Transportation's Utility Accommodation Manual (Document 710-020-001) and Rule 14-46.001, F.A.C.

E. Any structures proposed in the application which exceed 200 feet in height will be subject to an aeronautical study by the Federal Aviation Authority under the provisions of 14 CFR Part 77. If the aeronautical study finds an adverse effect on the safe and efficient use of navigable airspace, the project will require the issuance of a variance by state or local government.

F. Any drainage onto State of Florida right of way and transportation facilities will be subject to the requirements of Rule Chapter 14-86, Drainage Connections, Florida Administrative Code, including the attainment of any permit required thereby. The Department reserves the right to raise further issues as additional information on this project becomes available.

### III. DEPARTMENT OF COMMUNITY AFFAIRS

A. Hillsborough County shall develop a Comprehensive Hurricane Preparation and Recovery Plan for the RRF Unit 4 project. The plan shall be submitted to the Department of Community Affairs as part of the Final Site Plan. In no case shall the plan be submitted later than commencement of construction of Unit 4.

B. Hillsborough County shall submit a formal update of the Comprehensive Hurricane Preparation and Recovery Plan to the Department of Community Affairs every five (5) years following commencement of commercial operation of Unit 4 and whenever an additional electrical generating unit is brought into service at the RRF Plant site.

### IV. SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

#### A. *Cooling Tower (Units 1-3)*

##### 1. Makeup Water Constituency

a. The Resource Recovery Facility shall utilize only treated sewage effluent or stormwater runoff from the stormwater holding pond as cooling tower makeup water. The effluent shall have received prior to use in the tower, as a minimum, secondary treatment, as well as treatment described in condition IV.A.2., below. Use of waters other than treated sewage effluent or site stormwater, i.e. higher quality potable waters or lower quality less than secondarily treated sewage effluent, will require a modification of these conditions of certification.

b. Notwithstanding the provisions of condition IV. A.1.(a), Hillsborough County may use potable water as cooling tower makeup water: (i) on an interim basis for 24 months, (ii) on an emergency basis, after the Northwest Brandon Subregional Wastewater Treatment Plant is operational, whenever the wastewater treatment plant is unable to



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## SECTION B: SPECIFIC CONDITIONS

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produce treated wastewater of suitable quality or quantities, if the County determines and the SWFWMD agrees that it is not feasible to use other sources of water; and (iii) under such other circumstances as may arise, if such use is approved in writing by the DEP and SWFWMD.

c. Hillsborough County may use treated effluent or potable water at any time as boiler makeup water.

d. Hillsborough County will report to the SWFWMD the daily quantities of potable or fresh water utilized as makeup water for the cooling tower. This data will be supplied on a monthly basis, with reports due by the 10th day of the month following data collection.

e. To implement condition IV. A.1.(b)(ii), above, Hillsborough County shall submit reports to the SWFWMD concerning the feasibility of using other sources of water for emergency purposes. A progress report shall be submitted to SWFWMD on June 1, 1987, and a final report shall be submitted on June 1, 1988.

### ***B. Operation Unit 4***

#### **1. Cooling Tower**

a. The Resource Recovery Facility shall utilize only treated sewage effluent as cooling tower makeup water. As a minimum, prior to use in the tower the effluent shall have received secondary treatment. Use of waters other than treated sewage effluent, i.e. higher quality potable waters or lower quality less than secondary treated sewage effluent, will require a modification of these conditions subject to agreement by the SWFWMD and the DEP.

b. Notwithstanding the provisions of condition IV.B.1. above, Hillsborough County may use potable water as cooling tower makeup water on a limited basis whenever:

(1) Treated wastewater is unavailable in suitable quality or quantities and the County determines, with SWFWMD and DEP agreement, that it is not feasible to use other sources of water; or

(2) under such emergency circumstances that may arise, if such use is approved by the SWFWMD and the DEP.

#### **2. Boiler Water**

a. Hillsborough County may use treated effluent or potable water at any time as boiler makeup water.

b. Hillsborough County will report to the SWFWMD the daily quantities of potable or fresh water utilized as makeup water for the cooling tower. This data will be supplied within Hillsborough County's Public Supply per Capita Water Use Survey.

## **V. HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION**

### ***A. Asbestos***

The National Emissions Standards for Hazardous Air Pollutants for Asbestos (40 CFR, Part 61, Subpart M) promulgated by the U.S. EPA, enforced by DEP and delegated to the EPC within Hillsborough County applies to regulated asbestos renovation and demolition

## SECTION B: SPECIFIC CONDITIONS

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projects. Notification and the appropriate fee must be submitted to the EPC at least ten working days prior to the regulated renovation or demolition activity. Prior to the start of any demolition or renovation activities, a thorough asbestos inspection must be performed. Asbestos survey inspections must be performed by a licensed asbestos consultant. Asbestos containing waste materials must be disposed of per local, state and federal regulations.

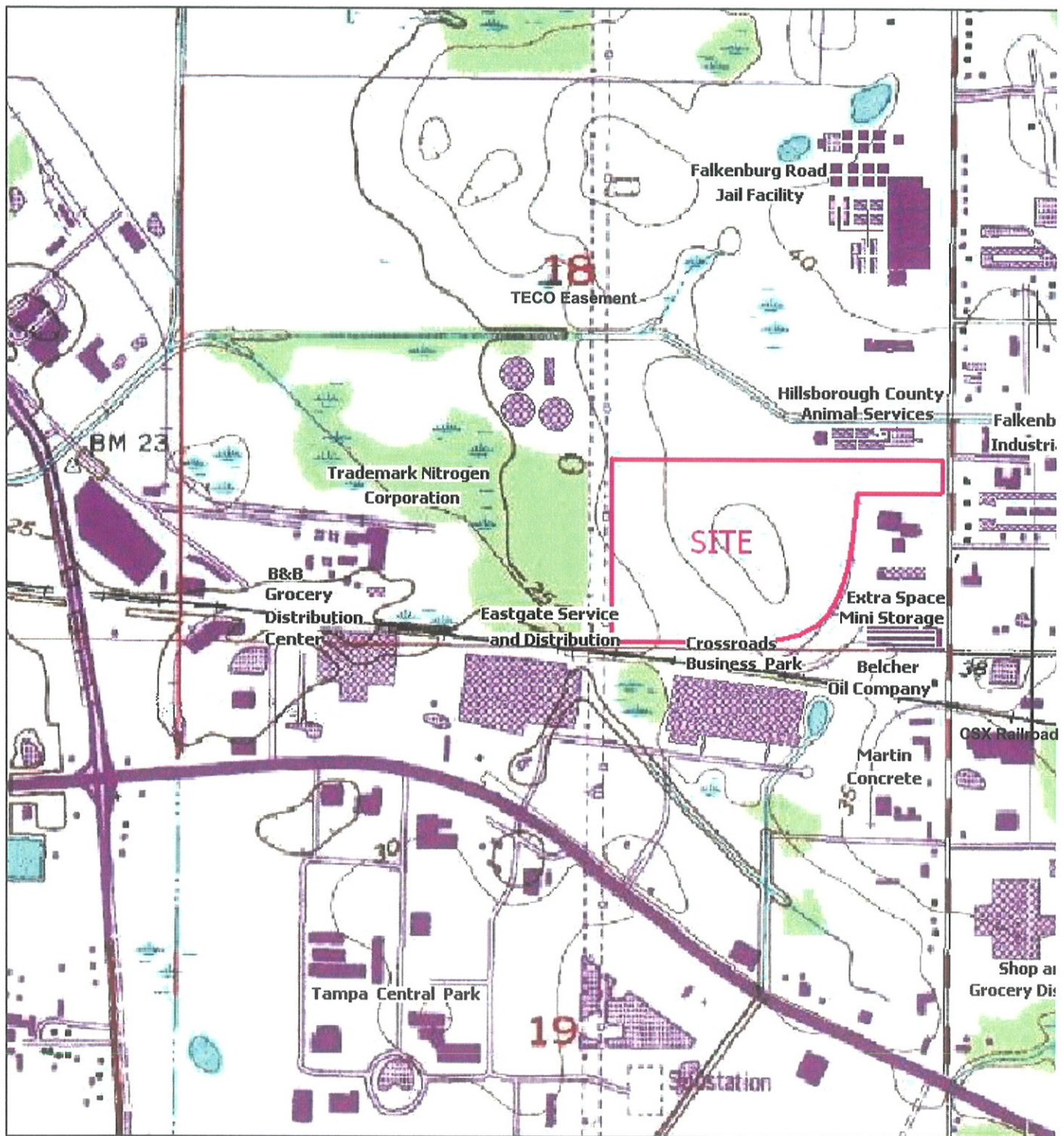
*[Section 469.003, F.S.]*

### **HISTORY**

Certification 12/18/84, signed by Governor Graham  
Modified 07/28/86; signed by Governor Graham  
Modified 10/06/87; signed by Governor Martinez  
Modified 06/15/98; signed by Secretary Wetherell  
Modified 05/20/05; signed by Siting Administrator Owen  
Expansion Certification 09/27/06; signed by Governor Bush  
Modified 03/07/07; signed by Siting Administrator Halpin  
Modified 09/10/07; signed by Siting Administrator Halpin  
Modified 07/11/11; signed by Siting Administrator Mulkey

**Attachment A**

- A1 – Vicinity Map of Site**
- A2 – Aerial Photograph of Site**
- A3 – Survey of Site Boundary**



Hillsborough County  
Energy Recovery Project

Scale  
NTS

Figure 2.1  
Site Boundaries





Hillsborough County Energy  
Recovery Project



Figure 2.4  
Aerial Photograph of Site

Aerial Taken (11/2003)





HILLSBOROUGH COUNTY  
ENERGY RECOVERY PROJECT

A vertical scale bar labeled "FEET" with markings at 200, 0, 200, 400, and 600.

**Attachment B**

**Stormwater System Operation & Maintenance Plan**

## Section 6

# Stormwater Operation Plan

The purpose of this section is to assist the operator in operating the HCRRF stormwater system. The HCSWMD operator (operator) shall retain all responsibility and liability of operations of the stormwater system including the operations described herein. The operator will train additional personnel in the field as necessary. The protocol for recording rainfall, staff gauge readings and weir adjustments will be emphasized in the training.

The operator shall monitor weather conditions and use an adjustable weir gate to control the water elevations on an as needed basis, in advance of anticipated storm events such as hurricanes and winter storms and prevent contaminated water from entering the waters of the State. Staff gauges and rain gauges shall be used to assist the operator in controlling the water elevations on a daily basis, particularly for unanticipated storms events. Staff gauges referenced NAVD1988 datum shall be installed in ponds C and B. One (1) wireless rain gauge shall be installed near Pond C to measure daily rainfall and monitor real time rainfall data.

The operator will be on-site 5 days a week to check and operate the weirs. The operator shall check and record the staff gauge elevations and 24 hour rainfall events and make daily adjustments as necessary or in advance of anticipated and unanticipated storm events. HCRRF facility operators are also on-site 7 days per week, 24 hours per day to make adjustments to operate the stormwater system in the absence of the operator. The operator and the facility operators will communicate using 2-way radios when all are on site.

### 6.1 Emergency Operations

#### Weir #1 Emergency Operating Conditions

(Located in Pond B at the southwest corner of the HCRRF property)

For Spills from the AWTP and HCRRF that have a reasonable potential to contaminate the stormwater ponds, the adjustable weir gate shall be closed by the operator at a minimum elevation 31.5 feet to minimize potential contamination to the waters of the State. The weir gate shall remain in the closed position until such time the spill has been assessed and appropriate corrective action is taken. The HCRRF facility operator, at the discretion of the operator, can operate the adjustable weir gate to minimize potential contamination to the waters of the State or mitigate elevated water levels in the facility ponds. The HCRRF facility operator shall report spills in accordance with all local, State, and Federal requirements.

#### Weir #2 Emergency Operating Conditions

(Located in Pond C near the northeast entrance of the HCRRF property)



For Spills from the AWTP and HCRRF that have a reasonable potential to contaminate the stormwater ponds, the adjustable weir gate shall be closed by the operator at a minimum elevation 36 feet to minimize potential contamination to the waters of the State. The weir gate shall remain in the closed position until such time the spill has been assessed and appropriate corrective action is taken. The HCRRF facility operator, at the discretion of the operator, can operate the adjustable weir gate to minimize potential contamination of the waters of the State or mitigate elevated water levels in the facility ponds. The HCRRF facility operator shall report spills in accordance with all local, State and Federal requirements.

**Emergency Contracts**

HCSWMD Operator (Facility Office): (813) 744-5591.

HCRRF Contracted Operator (Control Room): (813) 689-7585 or (813) 684-5688 x3018

**6.2 Normal Operation**

The operator or his designated agent will utilize the staff gauges and rain gauges to control the water elevations of the wet detentions ponds. The operator will record the 24 hour rainfall and staff gauge readings upon arrival to the site. The rain gauge will be manually or automatically emptied for the next 24 hour period. For rain events occurring during the day, the operator will monitor the rainfall in real time using the wireless rain gauge and transmitter from the tipping floor office. During rain events, the operator will utilize the real time rainfall data to make adjustments to the gates for unanticipated rainfall conditions as necessary. Before leaving the site, the operator will check the total real time rainfall and make any additional adjustments in accordance with the established operating conditions for Weirs No. 1 and No. 2.

**Weir #1 Operating Conditions**

(Located in Pond B at the southwest corner of the HCRRF property)

For rain events greater than 8 inches in 24 hours, the adjustable gate should be set at elevation 28.00 feet.

For rain events less than 8 inches in 24 hours but greater than 4 inches in 24 hours, the adjustable gate should be set at elevation 29.50 feet.

For rain events equal to or less than 4 inches in 24 hours, the adjustable gate may be set at elevation 30.70 feet.

If conditions warrant, the gate may be adjusted downward by the general relationship 1 in. rainfall = 0.2 feet (above set elevation) for anticipated and unanticipated rainfall conditions.

**Summary Operating Conditions for Weir #1**

If Rain Event > 8 inches/24 hrs., then set gate at control elevation 28.00 feet.

If Rain Event ≤ 8 inches/24 hrs. but > 4 in./24 hrs., then set at elevation 29.50 feet.

If Rain Event ≤ 4 in./24 hrs., then set gate at elevation 30.70 feet.

If the set elevation was adjusted downward, then after the peak stage has been reached or 24 hours after the storm event, the gate shall be adjusted to the previous set elevation.

**Weir #2 Operating Conditions**

(Located in Pond C near the entrance to the HCRRF at the northeast corner of the property)

For rain events greater than 8 inches in 24 hours, the adjustable gate shall be set at elevation 34.50 feet.

For rain events equal to or less than 8 inches in 24 hours, the adjustable weir gate shall be set at elevation 36.00 feet.

If conditions warrant, the gate may be adjusted downward by the general relationship 1 in. rainfall = 0.12 feet (above set elevation) for anticipated and unanticipated rainfall conditions.

**Summary Operating Conditions for Weir #2**

If Rain Event > 8 inches/24 hrs., then set gate at control elevation 34.50 feet.

If Rain Event ≤ 8 inches/24 hrs., then set gate at elevation 36.00 feet.

If the set elevation was adjusted downward, then after the peak stage has been reached or 24 hours after the storm event, the gate shall be adjusted to the previous set elevation.

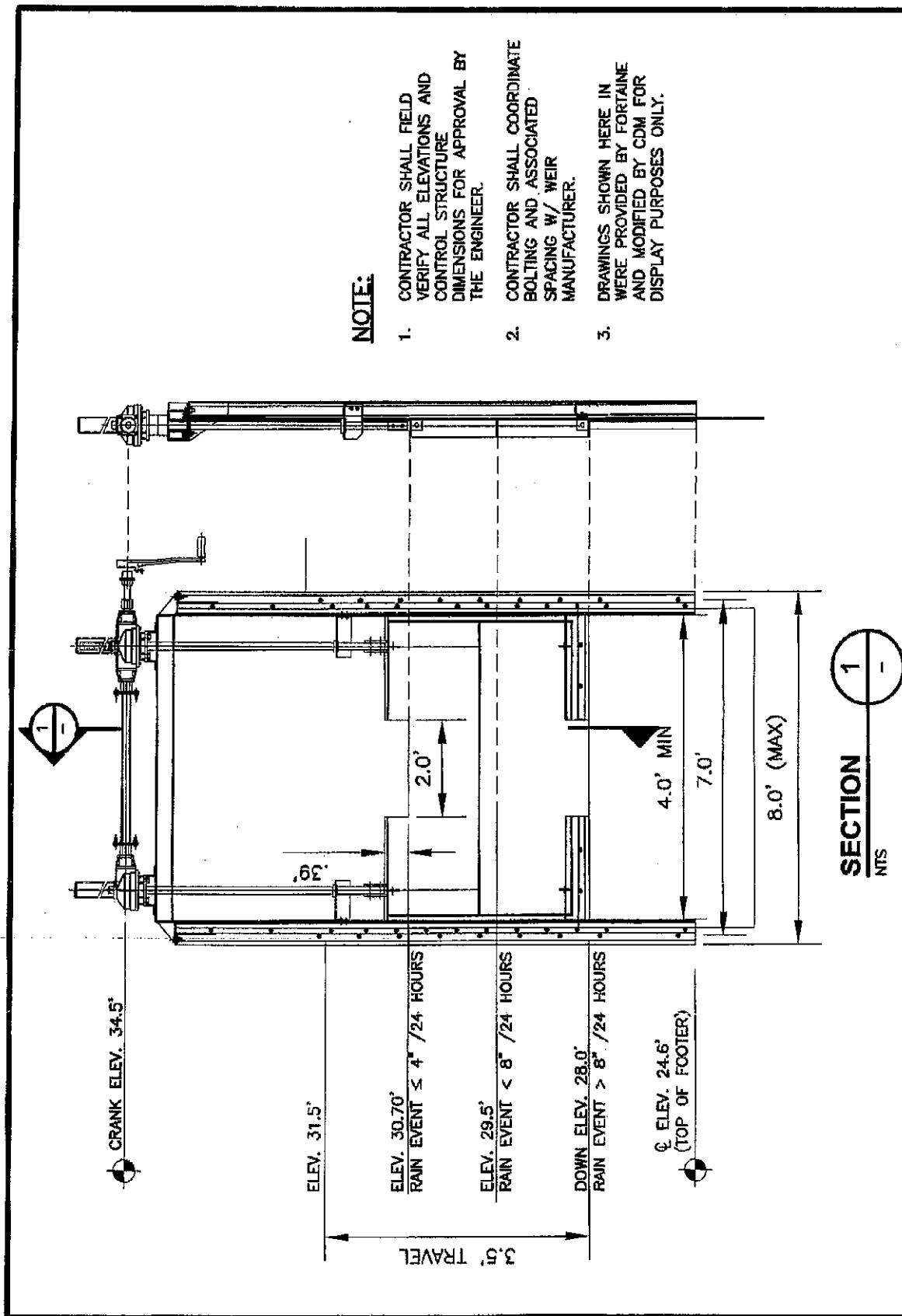


Figure 1  
Adjustable Weir Gate No. 1  
Stormwater Design And Operations Plan Report  
Hillsborough County Resource Recovery Facility

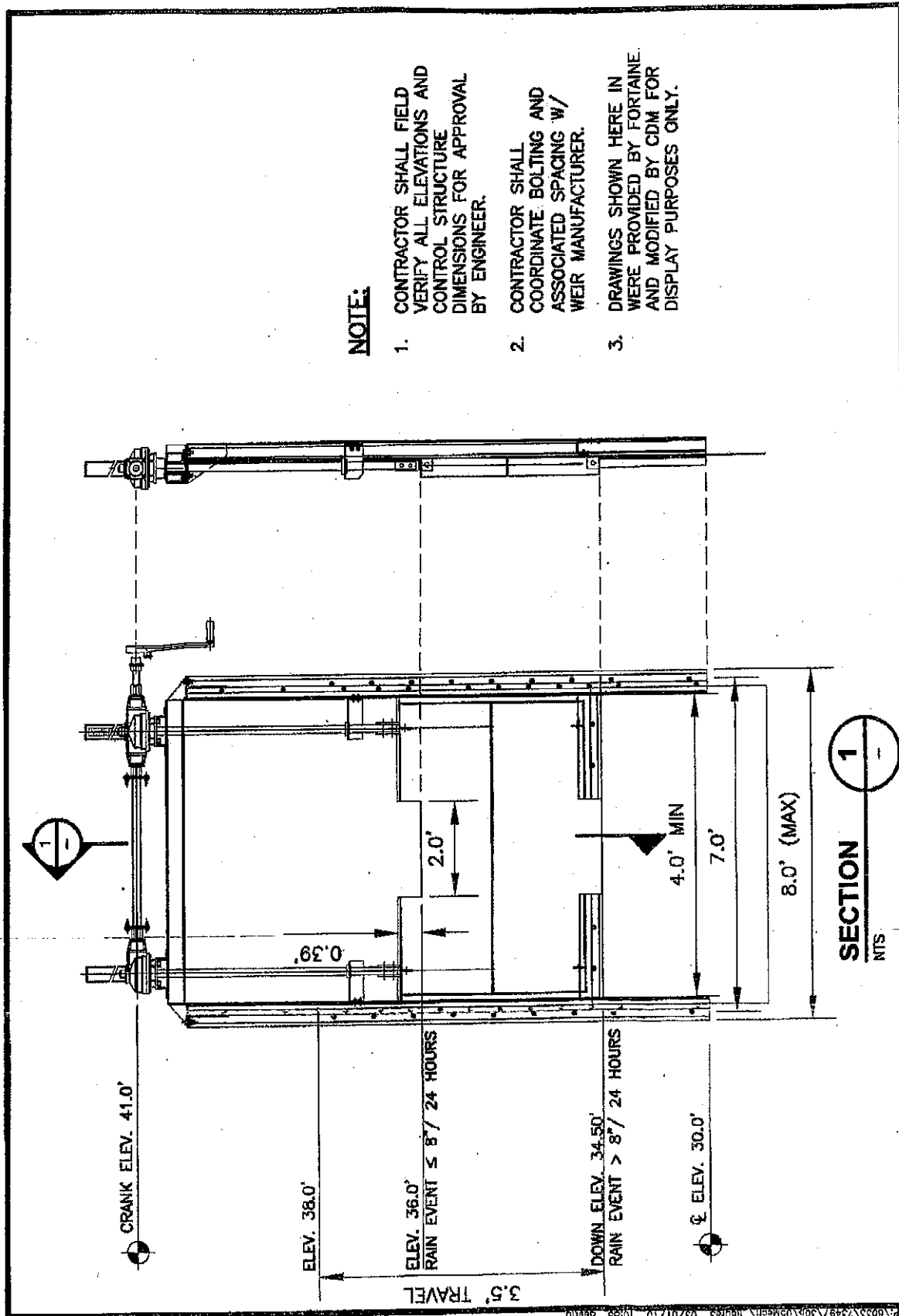


Figure 3  
Adjustable Weir Gate No. 2  
Stormwater Design And Operations Plan Report  
Hillsborough County Resource Recovery Facility

## Attachment B

### Additional Operation and Maintenance Instructions for the HCRRF Surface Water Management System

The following normal maintenance items, including cleaning or replacement of the various elements of the system, will be required for the surface water management system to continue to operate as designed.

#### General Maintenance

1. All surface water management system pipes, swales, inlets, catch basins, manholes, flumes, pond inflow and outfall structures (including oil skimmers), and discharge pipes should be inspected on a regular basis (monthly or quarterly) and following significant storm events. They should be maintained by removing built-up debris and vegetation and repairing deteriorating structures.
2. Chemicals, oils, greases or similar wastes are NOT to be disposed of in the surface water management system or through storm sewers. Treatment ponds are designed to treat normal road, parking lot, roof and yard runoff only. Some chemicals may interfere with a treatment pond's functions or kill vegetation and wildlife. Dispose of these potentially dangerous materials properly by taking them to recycling facilities or to collection locations sponsored by many local governments.

Also, do not dispose of grass clippings in a surface water management system. Grass clippings pose problems by smothering desirable vegetation, clogging outfall structures and, when they decompose, may cause unsightly algae blooms that can kill fish.

3. Accumulated pond sediments may contain heavy metals such as lead, cadmium and mercury, as well as other potentially hazardous materials. Therefore, sediments removed from surface water management system inlets, pipes and ponds should be disposed of at an approved facility (check with your county Solid Waste Department or the Florida Department of Environmental Protection for disposal facilities approved to accept treatment pond sediment).
4. During any repair or maintenance activity, use care to avoid causing erosion or siltation to adjacent or off-site areas.
5. Alterations (filling, enlarging, etc.) of any part of the surface water management system are not permitted without prior approval from the Department and all other applicable governing agencies.
6. It is usually more cost-effective to monitor and perform routine maintenance on a surface water management system rather than let it fail and have to reconstruct the entire system.

## Attachment B

7. Mosquito growth can be minimized in a surface water management system by the following measures:
  - Do not dump grass clippings or other organic debris into a surface water management system — decaying grass clippings and other decomposing vegetation create ideal conditions for breeding mosquitoes.
  - Clean out any obstructions that get into the system. Debris can obstruct flow and harbor mosquito eggs and larvae.
  - Remove water lettuce and water hyacinth, which nourish and shelter mosquito larvae.
  - Stock ponds with predatory “mosquito fish” — *Gambusia minnows*, which may be collected from other ponds and ditches and introduced into your SWMS.
8. Notify the Department at (813) 632-7600 within twenty-four hours of observation of sinkhole development in the surface water management system.

### Wet Detention Pond

1. The side slopes of the detention pond and adjoining swale shall be inspected for bare spots, damage or erosion. Bare areas shall be sodded or seeded to replace the grass cover. In the case of erosion, replace the missing soil and bring the affected areas back to grade.
2. Maintain, rather than remove, wetland vegetation that becomes established in the littoral zone. Do not cut, mow, use herbicide or grass carp to remove any of the vegetation in the littoral zone.
3. On a quarterly basis and following significant storm events, inspect the area in front of the outfall control structure to for built-up sediments, vegetation and debris that impair the operation of the structure. Remove sediments, vegetation, trash and debris to an approved disposal site.
4. When littoral zone vegetation and sediment accumulate to such an extent that water depth decreases, the littoral zone may need to be re-graded and re-vegetated. When it appears that the pond has reached this state, contact the Department prior top large scale maintenance.
5. The wet detention pond shall have a minimum of a 35 percent littoral zone, based on the ratio of vegetated littoral zone to the surface area of the pond at the control elevation. Should the establishment of native vegetation not be accomplished within 24 months of construction of the wet detention pond, the permittee shall plant (and mulch if necessary to sustain plant growth) the littoral shelf to achieve the required 35 percent vegetative cover. Native vegetation that becomes established in the littoral zone must be maintained

## Attachment B

during the operation of the facility. Details of the percent cover of the vegetated littoral shelf shall be included with the required inspection certification reports. Periodic replanting is required if coverage falls below the 35 percent level.

6. Signs shall be posted around the perimeter of all Wet Detention Ponds as described below.

One sign fronting retention Pond A and visible to staff, across from the facility entrance gate.

One sign fronting retention Pond B and visible to staff, located where it is most prominent.

One sign fronting retention Pond C and visible to staff, located where it is nearest the point at which maintenance crews would first begin staging to perform pond maintenance or repairs.

One sign fronting retention Pond D and visible to staff, across from the proposed scale area.

The signs should be installed prior to transfer to operation and are required for the proper operation and maintenance of the surface water treatment system. The signs should read:

STORMWATER TREATMENT POND  
NO MOWING OR SPRAYING OF AQUATIC VEGETATION  
ALLOWED UNLESS AUTHORIZED BY FDEP.

Call (813) 632-7600 for more information.

The facility operator will communicate to the grounds maintenance personnel "not to mow or spray aquatic vegetation."

7. Notify the Department at (813) 632-7600 within twenty-four hours of observation of sink hole development in the surface water management system.

## **Appendix I**

### **PSD Air Construction Permits:**

PSD-FL-104

PSD-FL-121

PSD-FL-121B

0570261-002-AC (PSD-FL-121C)

0570261-004-AC

0570261-007-AC (PSD-FL-369)

0570261-008-AC

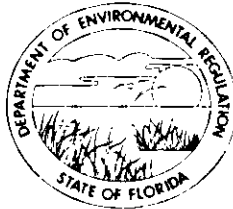
0570261-009-AC (PSD-FL-369A)

0570261-010-AC



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301-8241



BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

May 30, 1986

Mr. Bruce P. Miller  
Acting Chief  
Air Programs Branch  
U.S. EPA, Region IV  
345 Courtland Street, N.E.  
Atlanta, Georgia 30365

Dear Mr. Miller:

RE: Final Determination - Hillsborough County Resource  
Recovery Facility, PSD-FL-104

Enclosed please find the department's response to your comments on the Final Determination for the subject project. We recommend that the applicant be granted Authority to Construct, subject to the conditions in the Final Determination as amended.

Sincerely,

C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality  
Management

CHF/pa

Enclosure

cc: David S. Dee  
Bill Thomas  
Iwan Choronenko

Final Determination

Hillsborough County Energy Recovery Facility's Prevention of Significant Deterioration permit application has been reviewed by the Florida Bureau of Air Quality Management. Public notice of the Intent to Issue the permit was published in the Tampa Tribune on April 6, 1986.

Copies of the preliminary determination have been available for public inspection at the Florida Department of Environmental Regulation's Southwest District office in Tampa and the Bureau of Air Quality Management office in Tallahassee.

These comments on the preliminary determination and draft permit were received from the United States Environmental Protection Agency, Region IV:

1. Does the state NSPS (17-2.660) apply? Yes, it does apply. However, this section was adopted by reference and because this is a federal PSD permit, we do not feel that this cite is necessary.
2. The 3-hour SO<sub>2</sub> limit is not necessarily BACT. The mention of this limit as BACT has been stricken.

## Appendix - I

3. In Condition (11), the (2) should be (3). Condition (11) has been changed to reflect this.
4. Wording change on page 28: "During each" has been substituted for "with the" in paragraph b.(1).
5. Mercury emission rate in Table II-1: This is the rate proposed by the county at the time of the application. BACT for mercury was determined to be less than the county's proposal. No change is needed to Table II-1.
6. Scrubber condition: Condition 12 has been added to the permit. This condition requires that space for a scrubber be provided should the future installation of a scrubber be necessary.
7. Lead limit: The county proposed a lead limit of 0.048 lb/ton when they applied for the permit. After negotiating with the EPA, the county accepted a limit of 0.020 lb/ton. The statement on page 7 of the preliminary determination identifies the limits as "the applicant has proposed". For this reason, this lead limit will not be changed.

The Bureau of Air Quality recommends that the PSD permit be issued with the changes discussed above.

Final Determination

and Permit

Hillsborough County Energy Recovery Facility

Hillsborough County, Florida

PSD-FL-104

Prevention of Significant Deterioration

40 CFR 52.21

Review performed by Florida Department of Environmental  
Regulation

May 21, 1986

I. INTRODUCTION

Pursuant to Section 403.505, Florida Statutes, Hillsborough County applied to the Florida Department of Environmental Regulation (DER) in August 1984 for certification of a steam electric generating, solid waste energy recovery facility at a site about two miles east of the town of Tampa on the county's Faulkenburg Road site. After a thorough review by DER, including public hearings, the Florida Power Plant Siting Board issued a site certification to the County. At that time, DER believed that such a site certification constituted a legal prevention of significant deterioration (PSD) permit under Chapter 17-2.500 of the Florida air pollution regulations which had been approved by the U.S. Environmental Protection Agency (EPA) on December 22, 1983. In the summer of 1985, EPA became aware that the Florida Electrical Power Plant Siting Act (PPSA) under which the site certification was issued, restricts the authority of the State of Florida to implement any regulation pertaining to power plants other than those set out in the Act. Consequently, EPA determined that the Florida PSD regulations are superceded by the PPSA, and could not legally be approved by EPA as part of the State Implementation Plan (SIP) since the PPSA does not comply in part (as to PPSA covered sources) with EPA PSD regulations both procedurally and substantively. Thus, EPA concluded that the Hillsborough County energy recovery facility (ERF), which was under construction, did not possess a valid PSD permit. EPA's remedy for this situation was to issue an Order under Section 167 of the Clean Air Act for Hillsborough County to either cease construction or apply for a federal PSD permit under 40 CFR 52.21. EPA plans to issue in the near future a Federal Register notice clarifying its retention of PSD permitting authority as to sources subject to the PPSA. See also 51 Fed. Reg. 58 (Jan. 2, 1986).

On December 13, 1985, Hillsborough County applied to DER for a PSD permit. (By that time, DER had been given authority by EPA to conduct the technical and administrative steps of the federal PSD permitting process.) In conducting the PSD review, EPA decided that, due to the unique circumstances of this permit application, the best available control technology (BACT) analysis would be conducted taking into account the factors affecting BACT at the time the County submitted a complete application for a site certification. That date was August 16, 1984.

Hillsborough County did not agree that it lacks a valid PSD permit and sought judicial review of the EPA order requiring a federal permit. Hillsborough County submitted to the federal PSD

permitting process under protest. EPA and Hillsborough County entered into a settlement whereby EPA agreed to propose this draft permit and Hillsborough agreed to dismiss its petition for review.

The proposed project will be an energy recovery facility boiler which could use up to 1200 tons per day (TPD) of refuse as fuel. A proposed boiler expansion could increase the total solid waste processing capacity of the plant to 1600 TPD. The steam from the new boiler will be sent to a turbine generator with a capacity of 29 megawatts (MW) (gross). Hillsborough County has contracted with a full service vendor to design, construct, and operate the plant for 20 years. Generated electricity will be transmitted to the Tampa Electric Company (TECO) for distribution over the TECO transmission system. The generating capacity of the expanded plant should be approximately 39 MW. The primary purpose of the facility is to dispose of solid waste. In addition to electricity, steam, ferrous metals, and aluminum could be recovered resources. Non-processible waste (including non-combustibles and demolition debris) and unusable residue will be buried at a licensed, off-site sanitary landfill. The sale of electricity, and eventually other processed and recovered resources, will help offset the overall cost of owning and operating the facility.

The Energy Recovery Facility (ERF) will be located on approximately 50.4 acres within the County's existing Faulkenburg Road tract. The site is located approximately 0.6 miles north of State Road 60. It is bordered by Faulkenburg Road on the east and a TECO 230 KV transmission line corridor on the west, and the Seaboard System Railroad on the south. The plant site is mostly level grassy land with scattered trees in the northwest portion. The site has been recently used as improved pasture for cattle grazing. The topography is fairly level, with elevation ranging from 27 to 45 feet above sea level across the tract. Geology of the site shows an overburden of sand and clay lying over limestone and dolomite which forms the Floridan aquifer. The overburden forms a subsurface reservoir called the shallow aquifer. The proposed facilities will consist of a 29 MW steam electric generating turbine; three 400 tons per day mass-burn solid waste fired boilers; a mechanical draft cooling tower utilizing treated sewage effluent; a 220 foot flue gas stack and electrostatic precipitators. Provisions are made to allow the addition of another 400 tons per day boiler.

Tampa Electric Company's existing 230 KV transmission line corridor will be used to transmit the electricity from the Energy Recovery Facility (ERF).

## II. Rule Applicability

The proposed site of the Hillsborough County ERF is in an area designated as nonattainment for ozone and particulate matter under 40 CFR 81.310, and attainment for all other criteria pollutants.

New major sources which emit attainment pollutants regulated under the Clean Air Act in amounts greater than certain significance levels, are subject to 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The significance levels are specified by the PSD regulations.

New major sources in Hillsborough County which are subject to the PPSA and which are major for a nonattainment pollutant will be subject to 40 CFR 52.24 Statutory restriction on new stationary sources (construction ban). New municipal incinerators capable of charging greater than 50 TPD are also subject to 40 CFR 60, Subpart E, New Source Performance Standards (NSPS).

New municipal incinerators with a charging rate equal to greater than 50 TPD are also subject to Florida Rule 17-2.600(1)(c).

The applicant is proposing the construction of three 400 TPD mass burn technology incinerators for the processing of up to 1200 TPD of municipal solid waste. A fourth unit of similar size may be constructed in the future but will not be addressed in this review.

The maximum annual emissions from all three units for all regulated pollutants have been estimated by the applicant. These emission rates, and the PSD significant emission rates, are listed in Table II.1.

The proposed source has the potential to emit more than 100 tons per year of one or more regulated pollutants and is, therefore, subject to review for Prevention of Significant Deterioration (PSD) under 40 CFR 52.21. PSD review includes, among other requirements, a determination of Best Available Control Technology (BACT) and an air quality impact analysis for each attainment and noncriteria pollutant that would be emitted in a significant amount as listed in Table II-1. For the proposed source, the applicant has addressed PSD review for the eight pollutants which will be emitted in significant amounts: SO<sub>2</sub>, CO, NO<sub>x</sub>, Pb, Be, Hg, fluorides, and sulfuric acid mist.

The proposed source will emit less than 100 TPY of both particulate matter and VOC (precursor of ozone), and is thus not subject to the construction ban of 40 CFR 52.24. The proposed incinerators will each have a charging rate of 400 tons per day,

and thus are subject to NSPS and 17-2.600(1)(c). NSPS requires that the source meet a particulate emission rate of 0.08 grains per dry standard cubic foot (gr/dscf), corrected to 12% CO<sub>2</sub>. Regulation 17-2.600(1)(c) requires each incinerator to emit no more than .08 gr/dscf particulate corrected to 50% excess air.

### III. Preliminary Determination

As noted in Section I, Table II-1, the proposed source will result in significant emissions of the criteria pollutants SO<sub>2</sub>, CO, NO<sub>x</sub>, and lead, and of the non-criteria pollutants mercury, beryllium, fluorides, and sulfuric acid mist.

The review required under the prevention of significant deterioration (PSD) regulations for these pollutants includes:

Compliance with all applicable SIP, NSPS, and National Emission Standards for Hazardous Pollutants (NESHAP) regulations

BACT

An analysis of existing air quality;

A PSD increment analysis (for SO<sub>2</sub> only);

An Ambient Air Quality Standards (AAQS) analysis;

An analysis of impacts on soils, vegetation, visibility, and growth-related air quality impacts, and;

A "Good Engineering Practice" (GEP) stack height determination.

The analysis of existing air quality generally relies on preconstruction monitoring data collected in accordance with EPA-approved methods. The PSD increment and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA guidelines. BACT is specified on a case-by-case basis considering environmental, economic, and energy impacts.

Based on these required analyses, the Department has reasonable assurance that the proposed units at the Hillsborough County ERF, as described in this report and subject to the conditions of approval proposed herein, will employ BACT, will not cause or contribute to a violation of any PSD increment or ambient air quality standard, and will comply with all applicable air pollution regulations. A discussion of all review components follows.



## Appendix - I

Table II-1

Hillsborough County Resource Project  
Proposed Annual Emission Rates

Pollutant	Proposed Maximum Emission Rate (Ton/Yr) (1)	Significant Emission Rate for PSD Applicability
Particulate Matter (PM) (2)	90	N/A
Volatile Organic Compounds (2)	44	N/A
Sulfur Dioxide (SO <sub>2</sub> )	701	40
Carbon Monoxide (CO)	395	100
Nitrogen Oxides (NO <sub>x</sub> )	657	40
Lead (Pb)	4.4	0.6
Mercury (Hg)	1.1	0.1
Beryllium (Be)	0.003	0.0004
Fluorides	13	3
Sulfuric Acid Mist	17	7
		-

(1) Based on processing 1200 tons per day MSW for 365 days per year

(2) Nonattainment Pollutant

IV. Control Technology Review

a. BACT Determination

40 CFR 52.21 (j) requires that each pollutant subject to PSD review must be controlled by BACT. For the proposed three unit plant, eight pollutants are subject to BACT. The BACT emission limits proposed by the Department are summarized as follows:

<u>Pollutant</u>	<u>BACT</u>
Sulfur Dioxide	3.20 lb/ton
Nitrogen Oxides	3.0 lb/ton
Carbon Monoxide	1.80 lb/ton
Lead	.020 lb/ton
Mercury	2200 grams/day
Beryllium	$1.3 \times 10^{-5}$ lb/ton
Sulfuric acid mist	.077 lb/ton
Fluorides	.060 lb/ton

Also included as proposed permit conditions are limits on particulate emissions, opacity, and VOC. These limits are required to insure the emissions of particulate and VOC do not exceed the threshold level for applicability of the construction ban.

The applicant ultimately plans to construct a 1600 ton per day municipal solid waste (MSW) incinerator facility to be located on Faulkenburg Road in Tampa, Florida. The heat energy from combustion of the MSW will be used to produce steam to operate a 39 megawatt output turbine generator. Some of the electric energy produced will be used at the facility with the surplus power to be sold to the Tampa Electric Company.

The present plans are to install three 400 tons per day (TPD) incinerator-boiler units to process a total of 1200 TPD of MSW and generate 29 megawatts of electrical power. The fourth unit will be added at some future time. This BACT determination is for the three units only. Before the fourth unit is installed, the applicant must apply for a new permit for that unit.

Each incinerator will have an approximate heat input of 150 million Btu per hour, or 49 megawatts, based upon a MSW calorific content of 4500 Btu per pound. Each incinerator will be scheduled to operate 8760 hours per year and on this basis the tons per year of the various air pollutants emitted was calculated.

## Appendix - I

Based upon air pollutant emission factors provided by the applicant, the calculated total annual tonnage of regulated air pollutants emitted from the three units to the atmosphere is listed in Table II-1.

The applicant has proposed the following air pollutant emission limits, on a pound per ton basis: Particulate-0.41, CO-1.8, SO<sub>2</sub>-3.2, NO<sub>x</sub>-3.0, Pb-0.048, Hg-0.0052, Be-13.1 x10<sup>-6</sup>, sulfuric acid mist-0.077, fluorides-0.06, and VOC-0.2 lb/ton. An electrostatic precipitator (ESP) will be used to control the particulate, Pb, Hg, and Be emissions. Design and operating procedures will control the emission of VOC, CO and NO<sub>x</sub>. The firing of only MSW, a low sulfur content fuel, will limit SO<sub>2</sub> and sulfuric acid mist emissions.

The applicant has requested emission limits for SO<sub>2</sub> to be a 24-hour limit of 3.2 pounds per ton of MSW charged into the incinerator and a 3-hour limit of 8.5 pounds per ton of MSW charged into the incinerator. Emission test data from Westchester County, New York and Gallatin, Tennessee solid waste combustion sources indicate a range for SO<sub>2</sub> emissions from 2.6 to 3.5 pounds per ton of feed.

The 3.2 figure is judged to be BACT. The amount of SO<sub>2</sub> emitted would be comparable to the burning of distillate oil having a 0.35 percent sulfur content. Burning low sulfur fuel is one acceptable method of controlling SO<sub>2</sub> emissions. The installation of a flue gas desulfurization system to control SO<sub>2</sub> emissions is not warranted when burning MSW.

The mercury emission limit determined as BACT is equal to 69% of the National Emission Standard for Hazardous Air Pollutants (NESHAP), 40 CFR 61.50, Subpart E, for municipal waste water sludge incineration plants. The provisions of this subpart, however, do not apply because no grease, scum, grit screenings or sewage sludge will be incinerated in the proposed incinerators. According to the report "Air Pollution Control at Resource Recovery Facilities" issued by the California Air Resources Board, the average mercury emission factor when firing MSW is 4 x 10<sup>-4</sup> pounds per million Btu. This amounts to 30 grams per hour per unit and is not considered to have a major impact on the environment. The applicant has proposed a mercury emission rate of 0.0052 lb/ton which is 0.0013 lb/ton higher than the referenced factor. The BACT is determined to be 2200 grams/day.

The uncontrolled emission of beryllium, according to the California report, when firing MSW is estimated to be 6.2 x 10<sup>-6</sup> pounds per million Btu. Uncontrolled beryllium emissions would be approximately 11 grams per 24 hours or 0.01 TPY. The operating temperature of the particulate matter emission control device will be below 500 F. Operation below this temperature is

necessary to force absorption/condensation of beryllium oxides, present in the flue gas stream, onto available fly ash particles subsequently removed by the control device. Assuming 95% efficiency of the control device the annual beryllium emissions are estimated at 0.0007 tons per year. This amount of beryllium emitted is considered to have a negligible impact on the environment. The emission factor of  $13.1 \times 10^{-6}$  lb/ton MSW proposed by the applicant is judged to be BACT. If beryllium containing waste as defined in the National Emission Standards for Hazardous Air Pollutants (NESHAP), Subpart C, Subsection 61.31(g), were charged into the incinerator, emissions of beryllium to the atmosphere could not exceed 10 grams per 24 hours or an ambient concentration of 0.01 ug/m<sup>3</sup>, 30 day average. Compliance with this beryllium emission limit would be in accordance with NESHAP, Subpart C. However, the applicant has not applied to burn beryllium-containing waste, and the permit prohibits this activity.

The temperature of the incinerator combustion gases at the inlet to the particulate control device is estimated to be 425-475 °F. At these temperatures any lead would be in a nonvaporous state and would be removed by the particulate control device. The lead emission limit will initially be set at 0.020 pounds per ton of MSW charged into the incinerator. If the initial compliance tests show that the lead emissions are greater than or equal to 0.0080 pounds per ton, the lead emission limit of 0.020 pounds per ton will remain in effect. If the initial compliance tests show that the lead emissions are less than 0.0080 pounds per ton, the lead emission limit will be reduced to 0.010 pounds per ton. This level of control is judged to be BACT.

Since there are several secondary lead reclamation plants in the Tampa area, there is an economic incentive to recycle lead containing materials. The majority of lead emissions from an incinerator are expected to originate from solder joints in discarded electronic devices. The amount of lead emitted is not considered to have a significant impact upon the environment.

During combustion of municipal solid waste, NO<sub>x</sub> is formed in high temperature zones in and around the furnace flame by the oxidation of atmospheric nitrogen and nitrogen in the waste. The two primary variables that affect the formation of NO<sub>x</sub> are the temperature and the concentration of oxygen. Techniques such as the method of fuel firing to provide correct distribution of combustion air between overfire and underfire air, exhaust gas recirculation, and decreased heat release rates have been used to reduce NO<sub>x</sub> emissions. A few add-on control techniques such as catalytic reduction with ammonia and thermal de-NO<sub>x</sub> are still experimental, and are not considered to be demonstrated technology for the proposed project.

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The proposed units will use proprietary grate and combustion controls to limit  $\text{NO}_x$  emissions at 3.0 pounds per ton of MSW charged. This level of control is judged to represent BACT.

Carbon monoxide is a product of incomplete combustion where there is insufficient air. Incomplete combustion will also result in the emissions of solid carbon particulates in the form of smoke or soot and unburned and/or partially oxidized hydrocarbons. Incomplete combustion results in the loss of heat energy to the boiler. The department agrees with the applicant that BACT is the grate and combustion control system to insure sufficient mixing of the MSW and air so that the emission of products of incomplete combustion is minimized. The proposed CO emission rate is 1.8 pounds per ton. This level of control is judged to represent BACT.

Furthermore, CO has a calorific value of 4347 Btu/lb and when discharged to the atmosphere represents lost heat energy. Since heat energy is used to produce the steam which drives the generator to produce electric power, there is a strong economic incentive to minimize CO emissions.

Particulate matter emissions will be controlled by an electrostatic precipitator (ESP). Each of the three proposed boilers will be equipped with its own ESP which will be efficient to 0.021 grains per dry standard cubic foot corrected to 12%  $\text{CO}_2$  at the outlet. At this emission rate, particulate matter emissions for the facility will be approximately 96 tons per year.

VOC emissions, like carbon monoxide emissions, result from incomplete oxidation of carbon compounds. Control of CO and VOC emissions can be mutually supportive events.

The applicant indicates that sulfuric acid mist and fluorides will be emitted by the proposed facility. The applicant estimates that sulfuric acid mist will be emitted at a rate of 0.0768 pounds per ton of fuel combusted. This equates to a rate of 3.8 pounds per hour or 16.8 tons per year. The significant emission rate for sulfuric acid mist is 7.0 tons per year. Emissions of fluoride are estimated at 0.06 pounds per ton of fuel combusted. At this emission rate, fluorides would be emitted at a rate of 3.0 pounds per hour or 13.1 tons per year. The significant emission rate for fluoride is 3.0 tons per year. Control of these acid gas emissions would be obtained by a scrubber. However, at the level of these acid gas emissions, the addition of a scrubber for acid gas control would be uneconomical. No control is judged to represent BACT. In addition, BACT for the control of acid gas emissions is that the initial design of the proposed facility include provisions for

the possible future installation of a wet or dry flue gas scrubber system, if deemed necessary.

b. NSPS and Florida SIP Limit Analysis

These two regulations dictate similar emission limits using slightly different units. The proposed particulate emission limit of 0.021 gr/dscf is far below either of these limits.

V. Air Quality Analyses

The air quality impact of the proposed emissions has been analyzed. Atmospheric dispersion modeling has been completed and used in conjunction with an analysis of existing air quality data to determine maximum ground-level ambient concentrations of the pollutants subject to BACT. Based on these analyses, the department has reasonable assurance that the proposed solid waste recovery facility in Hillsborough County, subject to these BACT emission limitations, will not cause or contribute to a violation of any PSD increment or ambient air quality standard.

a. Modeling Methodology

The EPA-approved Industrial Source Complex Short-term (ISCST) dispersion model was used in the air quality impact analysis. This model determines ground-level concentrations of inert gases or small particles emitted into the atmosphere by point, area and volume sources. The ISCST model allows for the separation of sources and several other features, such as the inclusion of building wake downwash. This model was used in both screening and refined analyses.

All modeling was completed assuming the operation of four incinerators. Since the current plans are for the construction of only three incinerators, the modeling results represent a slightly conservative estimate of ambient concentrations.

Screening analyses were initially run using 26 prescribed meteorological conditions with the stack and emission data of the proposed ERF. These runs determined the worst-case boiler operating condition, identified those pollutants emitted from the ERF with a potential for significant impact, and established receptor locations for the more refined modeling. The results of these analyses indicated that a 110 percent boiler load condition (440 tons per day throughput) yielded the greatest air quality impact with the maximum ground-level concentrations occurring approximately 400 meters from the stack.

The refined modeling analysis consisted of running ISCST using five years of sequential hourly meteorological data. The surface and upper air meteorological data used were National Weather Service data collected at Tampa, Florida during the period 1970-1974. Since five years of data were used, the highest, second-high short-term predicted concentrations are compared with the appropriate ambient standard or PSD increment.

An initial set of refined runs was made with emissions only from the proposed ERF. The significant impact area for SO<sub>2</sub> was then determined. This area is defined as the area enclosed by a circle whose radius is equal to the farthest distance from the facility in which a significant impact occurs. A significant impact is defined as 25 ug/m<sup>3</sup> for a 3-hour average, 5 ug/m<sup>3</sup> for a 24-hour average, and 1 ug/m<sup>3</sup> for an annual average. For this project the significant impact area extends to a distance of approximately one kilometer. Beyond this distance the ERF is assumed to have an insignificant SO<sub>2</sub> impact.

Modelled emission rates for some pollutants were higher than the BACT limits, which produced conservative estimates of ambient impacts. For a comparison of these rates, Table V-2 should be compared to the BACT emission rates in Section IV.a.

Other major SO<sub>2</sub> sources within about 30 kilometers of the proposed facility were modeled for impact within the significant impact area. The impacts of the other emitted pollutants were evaluated using emissions from the ERF only. Total ambient air quality impacts were based on the modeled impacts plus the monitored "background" concentrations.

The stack parameters and emission rates used in evaluating the ambient impacts are contained in Table V-1 and Table V-2, respectively. Copies of some of the critical model outputs and a description of the refined modeling analysis are attached to this determination in Appendix 1. Complete modeling printouts are available at the DER offices in Tallahassee, Florida.

### b. Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review. In general, one year of quality assured data using an EPA-reference, or the equivalent, monitor must be submitted. Sometimes less than one year of data, but no less than four months, may be accepted when department approval is given.

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Table V-1  
Hillsborough County Resource Recovery Project  
Source Parameters

Source	UTM-E (km)	UTM-N (km)	SO <sub>2</sub> (g/s)	Stack Height (m)	Temp. (K)	Exit Vel. (m/s)	Stack Dia. (m)
<u>PSD Sources</u>							
Hillsborough Co. RRF	368.2	3092.7	29.6	67.0	494	16.9	3.50
Pinellas RRF 1-3	335.2	3084.1	31.5	49.1	505	26.8	2.37
McKay Bay RRF	360.0	3091.9	21.4	45.7	500	21.3	1.91
TECO Big Bend	361.9	3075.0	8598	149.4	426	15.6	7.00
<u>NAAQS Sources</u>							
FPC Bartow	342.4	3082.7	722.2	91.4	408	44.0	3.35
FPC Higgins	336.5	3098.5	286.7	53.0	422	10.4	3.81
FPC Anclote #1	324.9	3119.0	1631.9	152.1	416	50.0	3.66
FPC Anclote #2	324.9	3119.0	816.0	152.1	416	28.3	3.66
TECO Hooker Pt. #1)	358.0	3091.0	41.30	85.4	402	18.2	3.40
TECO Hooker Pt. #2)	358.0	3091.0	41.30	85.4	402	18.2	3.40
TECO Hooker Pt. #3)	358.0	3091.0	37.00	85.4	397	11.5	3.70
TECO Hooker Pt. #4)	358.0	3091.0	57.00	85.4	397	11.5	3.70
TECO Hooker Pt. #5)	358.0	3091.0	84.00	85.4	402	18.2	3.40
TECO Hooker Pt. #6)	358.0	3091.0	107.00	85.4	426	17.9	2.90
TECO Gannon #1	360.0	3087.5	282.5	93.3	438	22.5	3.70
TECO Gannon #2	360.0	3087.5	282.5	93.3	438	32.4	3.10
TECO Gannon #3	360.0	3087.5	321.4	93.3	427	35.4	3.20
TECO Gannon #4	360.0	3087.5	421.6	93.3	443	24.6	2.90
TECO Gannon #5	360.0	3087.5	513.4	93.3	415	20.6	4.50
TECO Gannon #6			853.6	93.3	415	23.7	5.40
General Portland	358.0	3090.6	349	44.3	473	6.6	4.72
Gardinier	363.4	3082.4	473.3	29.4	333	9.1	2.10
Gardinier	363.4	3082.4	-210.26	36.5	344	11.8	2.00



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Table V-1 (cont.)

Source	UTM-E (km)	UTM-E (km)	SO <sub>2</sub> (g/s)	Stack Height (m)	Temp. (K)	Exit Vel. (m/s)	Stack Dia. (m)
<u>AMAX (Pt. No.)</u>	393.8	3096.3					
01			12.0	30.5	335.1	12.0	1.37
02			3.3	24.4	315.8	8.9	1.67
03			17.6	46.3	308.6	11.0	1.76
05			29.0	45.7	315.6	15.9	1.76
19			2.8	6.1	550.2	15.3	0.40
20			1.4	3.4	605.2	20.2	0.37
26 - 28			27.1	46.3	298.0	13.1	1.76
29			2.1	10.6	605.2	15.3	0.36
<u>CF Industries (Pt. No.)</u>	380.0	3115.7					
01			6.1	7.5	560.0	19.7	1.07
10			6.2	28.7	316.3	7.2	3.05
11			9.2	54.9	321.9	12.6	2.79
12			13.7	54.9	315.2	9.8	2.79
13			13.7	54.9	324.7	10.5	2.79
<u>Chloride Metals (Pt. No.)</u>	361.8	3008.3					
01			10.1	32.2	346.7	27.8	0.58
04			10.1	29.9	363.0	14.4	0.61
Columbia Paving	366.7	3077.8	3.7	12.2	339.7	22.3	1.37

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Table V-1 (cont.)

Source	UTM-E (km)	UTM-E (km)	SO <sub>2</sub> (g/s)	Stack Height (m)	Temp. (K)	Exit Vel. (m/s)	Stack Dia. (m)
Columbus Company	361.9	3077.8	4.8	12.6	449.7	20.0	1.24
Couch Construction	364.3	3098.1	3.3	10.4	390.8	17.2	1.41
Delta Asphalt	372.1	3105.4	4.8	8.4	381.3	20.6	1.17
Gulf Coast Lead co.	363.9	3093.8	47.2	29.6	347.4	24.9	0.62
IMC Port Sutton	360.1	3087.5	41.5	19.8	338.6	10.5	2.41
Thatcher Glass (Pt. No.)	361.2	3103.3	2.6	41.1	694.1	9.4	1.52
Furnace No. 1			2.6	41.1	656.9	11.4	1.52
Furnace No. 2							
Nitram	363.2	3089.0	3.1	27.4	505.2	10.8	1.37
National Gypsum (Pt. No.)	347.3	3082.7					
Dryer No. 1/Zone 1			0.66	12.5	388.6	8.5	1.07
Zone 2			0.66	12.5	424.7	9.1	0.91
Zone 3			0.66	12.5	330.2	9.1	0.91
Dryer No. 2/Zones 1&2			1.0	10.1	421.9	20.7	0.76
Zone 3			0.5	10.1	408.0	10.4	0.76
Zone 4			0.5	11.3	394.1	25.9	0.91

Table V-2  
Hillsborough County Resource Recovery Project  
Maximum Hourly Emission Rates Used  
in Modeling

<u>Pollutant</u>	<u>Emission Rates (1)</u>	
	<u>lb/ton</u>	<u>g/s</u>
Particulate Matter	0.38	3.5
Sulfur Dioxide	3.2 <sup>(2)</sup>	29.6
Carbon Monoxide	1.8	16.6
Nitrogen Oxides	3.0	27.7
Lead	0.02	0.185
Hydrocarbons (non-methane)	0.2	1.85
Mercury	0.0052	0.048
Beryllium	0.0000131	0.000121
Fluorides	0.06	0.554
Sulfur Acid Mist	0.0768	0.710
Hydrogen Chloride	4.0	37.9

(1) Based on a throughput of 110 percent of design capacity and the operation of four incinerators

(2) 3.2 lb/ton was used for 24-hour and annual average modeling and 8.5 lb/ton was used for 3-hour average modeling

An exemption to the monitoring requirement can be obtained if the maximum air quality impact, as determined through air quality modeling, is less than a pollutant-specific de minimus concentration. In addition, if current monitoring data already exist and these data are representative of the proposed source area, then at the discretion of the Department these data may be used. Such representative data must meet criteria for location, quality, and currentness outlined in EPA publication 450/4-80-012, Ambient Monitoring Guidelines for Prevention of Significant Deterioration.

The predicted maximum air quality impacts of the proposed ERF for the eight pollutants subject to PSD review are given in Table V-3 along with the monitoring de minimus levels. From this table it is seen that SO<sub>2</sub>, lead, and fluorides have maximum predicted air impacts greater than the de minimus levels and are thus subject to preconstruction monitoring requirements. Sufficient data in the area, however, exists for SO<sub>2</sub> and lead. The department did not require additional monitoring for these pollutants, since the existing data comply with the requirements of EPA 450/4-80-012. Although fluorides are subject to the monitoring requirements, no EPA-approved method currently exists to measure the ambient concentration of this pollutant. Also, requirement for monitoring of noncriteria pollutants is at the discretion of the Department.

Table V-4 shows the monitored ambient air quality levels for the most recent year (1983) for all the criteria pollutants, including the required data for SO<sub>2</sub> and lead. These data were collected from existing monitors in Hillsborough County.

### c. PSD Increment Analysis

#### 1. Class II Area

The proposed Hillsborough County ERF is to be located in an area designated as a Class II attainment area for the pollutant SO<sub>2</sub>. Because the proposed facility is to be located in an area designated as nonattainment for PM, a PSD increment analysis is required for SO<sub>2</sub> only.

The PSD increments represent the amount that new sources in the area may increase ambient ground-level concentrations of SO<sub>2</sub> and PM. At no time, however, can the increased loading of these pollutants cause or contribute to a violation of the ambient air quality standards.

All SO<sub>2</sub> emission increases from sources constructed or modified after December 1977 will consume PSD increment.

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Table V-3  
Maximum Air Quality Impacts Of The ERF  
For Comparison To The De Minimus Ambient Levels

<u>Pollutant</u>	<u>Maximum Modeled Concentration (1)(ug/m<sup>3</sup>)</u>	<u>De Minimus Ambient Impact Level (ug/m<sup>3</sup>)</u>
SO <sub>2</sub> (24-hour)	21.6	13
CO (8-hour)	16.3	575
NO <sub>2</sub> (Annual)	1.0	14
Lead (24-hour)	0.14	0.1
Mercury (24-hour)	0.035	0.25
Beryllium (24-hour)	0.000088	0.00050
Fluorides (24-hour)	0.405	0.25
Sulfuric Acid Mist	0.52	-
PM (2)	2.6	10

(1) Highest second-high concentration assuming four incinerators

(2) PM included for informational purposes.

Table V-4

Hillsborough County 1983 Monitoring Data in the Vicinity of the Proposed  
Resource Recovery Facility

Pollutant	Site	Location with Respect to the Proposed Facility		Averaging Time	Concentration	
		Direction	Distance (km)		Category	Concentration (ug/m <sup>3</sup> )
SO <sub>2</sub>	4360-052	278°	9.9	3-hour	Second-high	493
				24-hour	Second-high	86
				Annual	Highest	16
NO <sub>2</sub>	4360-052	278°	9.9	Annual	Highest	35
CO	4360-052	278°	9.9	1-hour	Second-high	12,600
				8-hour	Second-high	5,700
Lead	1800-082	285°	3.3	Calendar quarter	Highest	0.8
PM(1)	1800-082	285°	3.3	24-hour	Second-high	115
				Annual	Highest	54
O <sub>3</sub> (1)	4360-035	259°	11.5	1-hour	Second Daily High	281

(1) Nonattainment Pollutants

In addition, all SO<sub>2</sub> emission increases associated with the construction or modification of major sources which occurred after January 6, 1975, will consume increment. For the proposed project all emissions from the ERF consume increment. Several other sources in the area have been identified by the applicant as also consuming PSD increment and have been included in the analysis.

The Department has identified four other sources as having the potential to consume additional PSD increment for SO<sub>2</sub>. These sources are the Columbus Company, Couch Construction Company, Weyerhaeuser Company, and Scrapall Company. The first two were included in the modeling for determination of total impact but not for the determination of increment consumption. The latter two were not included in any modeling. A review of these sources indicated that only Columbus Company and Couch Company could potentially have a significant impact on increment consumption in the area of the proposed project. These sources will not interact with the increment consuming sources already modeled by the consultant.

It should be noted that the major increment consuming source identified by the applicant is the TECO Big Bend power plant. All units at this plant were modeled as increment consuming. In actuality only Unit 4 consumes increment and these emissions are largely offset by emission decreases (increment expansion) from Units 1, 2 and 3. As such, increment consumption is greatly overestimated.

Atmospheric dispersion modeling was performed taking into account only those new sources which consume PSD increment. The results of this modeling are summarized in Table V-5.

## 2. Class I Areas

A Class I area increment analysis is required for the Chassahowitzka National Wilderness Area located 79.6 kilometers to the north-northwest. The impact of the proposed ERF on this Class I area was determined. Although the distance to the Class I areas is greater than 50 kilometers (the distance to which the models are generally considered valid) the results indicate an extremely small (insignificant) impact on this area.

Table V-5

Comparison of New Source Impacts  
with PSD Increments

Pollutant and Averaging Time	PSD Class II Increment ( $\mu\text{g}/\text{m}^3$ )	Predicted Increased Concentration ( $\mu\text{g}/\text{m}^3$ )	Increment Consumed (%)	PSD Class I Increment ( $\mu\text{g}/\text{m}^3$ )	Predicted Increased Concentration ( $\mu\text{g}/\text{m}^3$ )
SO <sub>2</sub>					
3-hour	512	465	91	25	<1
24-hour	91	87	96	5	<1
Annual	20	5	25	2	<<1



d. AAQS Analysis

Given existing air quality in the area of the proposed Hillsborough County ERF, emissions from the new source are not expected to cause or contribute to a violation of an AAQS. The results of the AAQS analysis are contained in Table V-6.

Of the pollutants subject to PSD review only the criteria pollutants SO<sub>2</sub>, CO, NO<sub>2</sub>, and lead have an AAQS to compare with. All sources listed in Table V-1 were modeled to determine the maximum ground-level impacts for SO<sub>2</sub> within the area of significant impact. For CO, NO<sub>x</sub>, and lead only the proposed ERF was modeled to determine the maximum ground-level concentrations.

The total impact on ambient air is obtained by adding a "background" concentration to the maximum modeled concentration. This "background" concentration takes into account all sources of the particular pollutant in question that were not explicitly modeled. A conservative estimate of these "background" concentrations is given by the second highest monitored concentration listed in Table V-4. This is a conservative estimate because sources used in the modeling may have contributed to the monitored value and hence contribute doubly to the total impact.

VI. Additional Impacts Analysis

a. Impacts on Soils and Vegetation

The maximum ground-level concentrations predicted to occur for the criteria pollutants as a result of the proposed project in conjunction with all other sources, including a background concentration, will be below all applicable AAQS including the secondary standards designed to protect public welfare-related values. As such these pollutants are not expected to have a harmful impact on soils and vegetation.

The applicant has additionally addressed the impacts of the noncriteria pollutants. No soils or species of vegetation near the proposed project are known to be sensitive to these pollutants at the concentrations predicted to occur. These pollutants include sulfuric acid mist, fluorides, mercury, beryllium, and hydrochloric acid. Hydrochloric acid (HCL) is not one of the PSD review pollutants but was included at the Department's request because of its large emissions.

Table V-6

Comparison of Total Impacts with  
Ambient Air Quality Standards

Pollutant and Averaging Time	Maximum Impact Project	Maximum Impacts All Sources (ug/m <sup>3</sup> )	Existing Background (ug/m <sup>3</sup> )	Maximum Total Impact (ug/m <sup>3</sup> )	National AAQS (ug/m <sup>3</sup> )
SO <sub>2</sub>					
3-hour	106	519	493	1012	1300
24-hour	22	163	86	249	365
Annual	1	9	16	25	80
CO					
1-hour	32	-	12600	12632	40,000
8-hour	16	-	5700	5716	10,000
NO <sub>2</sub>					
Annual	1	-	35	36	100
Lead					
Quarterly	0.14 <sup>1</sup>	-	0.8	0.9	1.5

<sup>1</sup> The maximum quarterly average was conservatively estimated by using the maximum 24 hour average

b. Impact on Visibility

A level-1 visibility screening analysis was performed to determine any impact on the Chassahowitzka National Wilderness Class I area. The analysis showed that there was no potential for an adverse impact on visibility in this area due to emission from the proposed project.

c. Acid Rain Impact

The increased emissions of SO<sub>2</sub> and NO<sub>x</sub>, precursors to possible acid formation and subsequent acidic rain, from the proposed project are extremely small in comparison with the emissions of these pollutants from nearby power plants. Thus, no significant adverse impact on the acidity of rainfall is expected as a result of this project.

d. Growth-Related Air Quality Impacts

The construction and operation of the proposed source will have a minor positive net effect on industrial and commercial development. The source will promote development by providing for solid waste disposal, and thereby be an integral part of the plans for development within Hillsborough County. On a regional basis this effect is not expected to be significant. The project is not expected to significantly change employment, population, housing, or commercial/industrial development in the area to the extent that an air quality impact will result.

e. GEP Stack Height Determination

Good engineering practice (GEP) stack height means the greater of: (1) 65 meters; or (2) the maximum nearby building height plus 1.5 times the building height or width, whichever is less. For the proposed project the building height is 42.7 meters above ground level and the projected width is 56.4 meters. Thus definition (2) above leads to a GEP stack height of 106.8 meters.

The proposed stack height is 67 meters. This is less than the GEP height. The applicant has addressed the possible increased ground-level concentrations (as a result of aerodynamic effects of the nearby building) by including a downwash mechanism in the modeling.

VII. Nonattainment Review

EPA announced approval of Florida's new source review program for major sources in designated nonattainment areas on March 18, 1980 (45 FR 17140). Subsequently, in 1985, EPA discovered that the

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Florida Power Plant Siting Act supercedes in part the nonattainment new source review regulations under Florida law. Consequently, the Florida SIP is deficient with respect to electrical power plants. EPA plans to issue, in the near future, a federal register notice clarifying that two sets of nonattainment regulations will apply:

- (1) For sources located in designated nonattainment areas, EPA's construction ban (40 CFR 52.24) applies to major sources and major modifications, and
- (2) For sources locating in designated attainment or unclassifiable areas, EPA's Interpretative Ruling (40 CFR 51.18 Appendix S) will apply to major sources and major modifications.

The proposed source will be located in an area designated nonattainment for particulate matter and ozone, but is not a major source for either pollutant, and thus will not subject to the construction ban. The source will be located 43.5 kilometers from an SO<sub>2</sub> nonattainment area and is a major source for SO<sub>2</sub>. Under the Interpretative Ruling, the proposed source would be subject to certain more stringent requirements if the impact of its SO<sub>2</sub> emissions on the nearby nonattainment area exceeded 1 ug/m<sup>3</sup> annual average, 5 ug/m<sup>3</sup> 24-hour average, or 25 ug/m<sup>3</sup> 3-hour average. The modeling analysis shows the impact of the proposed source to be less than each of those levels, so the Interpretative Ruling will not apply.

PART I

Specific Conditions

1. Emission Limitations

a. Stack emissions from each unit shall not exceed the following:

- (1) Particulate matter: 0.021 grains per dry standard cubic foot corrected to 12% CO<sub>2</sub> (gr/dscf-12%) or 7.0 pounds per hour per unit, whichever is more restrictive.
- (2) Visible Emissions: Opacity of stack emissions shall not be greater than 15% opacity except that 20% opacity may be allowed for one six-minute period (average of 24 consecutive observations recorded at 15-second intervals) in any one hour. Excess opacity resulting from startup or shutdown shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess opacity shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by EPA for longer duration.  
  
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 start-up or shutdown shall be prohibited. Opacity of other emission points at the plant shall not exceed 5%.
- (3) VOC: 0.01 gr/dscf-12%, or 0.2 lb/ton, whichever is more restrictive
- (4) SO<sub>2</sub>: 0.17 gr/dscf-12% or 3.2 lb/ton, whichever is more restrictive, 24-hour average, 0.45 gr/dscf-12% or 8.5 lb/ton, whichever is more restrictive, 3-hour average
- (5) Nitrogen Oxides: 0.16 gr/dscf-12%, or 3.0 lb/ton, whichever is more restrictive
- (6) Carbon Monoxide: 0.093 gr/dscf-12%, or 1.8 lb/ton, whichever is more restrictive.

- (7) Lead: 0.00104 gr/dscf-12%, or 0.020 lb/ton, whichever is more restrictive.
- (8) Fluorides: 0.0031 gr/dscf-12%, or 0.060 lb/ton, whichever is more restrictive.
- (9) Sulfuric Acid Mist: 0.0040 gr/dscf-12%, or 0.077 lb/ton, whichever is more restrictive.
- (10) Beryllium:  $6.8 \times 10^{-7}$  gr/dscf-12%, or  $1.3 \times 10^{-5}$  lb/ton, whichever is more restrictive.
- (11) Each of the emission limits in conditions (1) and (3) through (10) is to be expressed as a 3-hour average. This averaging time, which is applicable to the emission limits for all pollutants, is based on the expected length of time for a particulate compliance test. The concentration standards in conditions (3) through (10) are included as the primary compliance limit to facilitate simpler compliance testing, since the process weight, in tons per hour, is not easily measured. The concentration limit is intended to be equivalent to the lb/ton limit. The concentration limits were derived by dividing the lb/ton limits by the calculated volume of flue gas produced when one ton of refuse is combusted. If actual process conditions, i.e., dscf per ton of refuse fired, are different than projected by the applicant, EPA may, at its discretion, determine compliance based upon the lb/ton limits.
- (12) Mercury: 2200 grams/day
- (13) The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks. Additionally, all portions of the proposed facility including the ash handling facility which have the potential for fugitive emissions will be enclosed. Also those areas which have to be open for operational purposes, e.g., tipping floor of the refuse bunker while trucks are entering and leaving, will be under negative air pressure.
- (14) Each of the three units is subject to 40 CFR Part 60, Subpart E, New Source Performance Standards

(NSPS), except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.

- (15) Only natural gas will be used as an auxillary fuel.

b. Compliance Tests

- (1) Compliance tests for particulate matter, SO<sub>2</sub>, nitrogen oxides, CO, VOC, sulfuric acid mist, fluorides, mercury and beryllium shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f), except that an annual test will be conducted for particulate matter. Compliance tests for opacity will be conducted simultaneously during each compliance test run for particulate matter.

Compliance tests shall be conducted for such time and under such conditions as specified by EPA prior to the compliance test. These conditions will be specified by EPA upon notification of performance tests as required by General Condition 1. The permittee shall make available to EPA such records as may be necessary to determine the conditions of the performance tests.

- (2) The following test methods and procedures from 40 CFR Parts 60 and 61 shall be used for compliance testing:
- a. Method 1 for selection of sample site and sample traverses
  - b. Method 2 for determining stack gas flow rate when converting concentrations to or from mass emission limits.
  - c. Method 3 for gas analysis when needed for calculation of molecular weight or percent CO<sub>2</sub>.
  - d. Method 4 for determining moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits.

- e. Method 5 for concentration of particulate matter and associated moisture content. One sample shall constitute one test run.
  - f. Method 9 for visible determination of the opacity of emissions.
  - g. Method 6 for concentration of SO<sub>2</sub>. Two samples, taken at approximately 30 minute intervals, shall constitute one test run.
  - h. Method 7 for concentration of nitrogen oxides. Four samples, taken at approximately 15 minute intervals, shall constitute one test run.
  - i. Method 8 for determination of sulfuric acid mist concentration and associated moisture content. One sample shall constitute one test run.
  - j. Method 10 (continuous) for determination of CO concentrations. One sample constitutes one test run.
  - k. Method 12 for determination of lead concentration and associated moisture content. One sample constitutes one test run.
  - l. Method 25 for determination of volatile organic compounds (VOC) concentration. One sample shall constitute one test run.
  - m. Method 13A or 13B for determination of fluoride concentrations and associated moisture content. One sample shall constitute one test run.
  - n. Method 101A for determination of mercury emission rate and associated moisture content. One sample shall constitute one test run.
  - o. Method 104 for determination of beryllium emission rate and associated moisture content. One sample shall constitute one test run.
- (3) The stack tests shall be performed at  $\pm 10\%$  of the heat input rate of 150 million Btu per hour per boiler; however, compliance with the particulate matter emission limit shall be at design capacity.



2. The height of the boiler exhaust stack shall be 220 feet above ground level at the base of the stack.
3. The incinerator boilers shall not be loaded in excess of their rated capacity of 36,666 pounds per hour each.
4. The incinerator boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.
5. The permittee must submit to EPA and DER within fifteen (15) days after it becomes available to the County, copies of technical data pertaining to the incinerator boiler design, to the electrostatic precipitator design, and to the fuel mix that can be used to evaluate compliance of the facility with the preceeding emission limitations.
6. Grease, scum, grit screenings or sewage sludge shall not be charged into the solid waste to energy facility boilers.
7. Electrostatic Precipitator

The electrostatic precipitator shall be designed and constructed to limit particulate emissions to no more than 0.021 grains per dscf corrected to 12% CO<sub>2</sub>.

8. Stack Monitoring Program

The permittee shall install and operate continuous monitoring devices for stack oxygen and opacity. The monitoring devices shall meet the applicable requirements of Rule 17-2.710, FAC, 40 CFR Part 60, Subparts A and D, Sections 60.13 and 60.45 respectively, except that emission rates shall be calculated in units consistent with emission limits in this permit. The conversion procedure shall be approved by EPA.

9. Reporting

- a. A copy of the results of the stack tests shall be submitted within forty-five days of testing to the DER Southwest Florida District Office, the Hillsborough County Environmental Protection Commission (HCEPC) and EPA Region IV.
- b. Stack monitoring shall be reported to HCEPC, the DER Southwest District Office and EPA Region IV on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Subsection 60.7.

10. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) but not sludge from sewage treatment plants as its fuel. Use of alternate fuels would necessitate application for a modification to this permit.

11. Addresses for submitting reports are:

a. EPA - Region IV

Chief, Air Compliance Branch  
U.S. Environmental Protection Agency  
345 Courtland St.  
Atlanta, GA 30365

b. DER

Chief, Compliance and Ambient Monitoring  
Bureau of Air Quality Management  
Florida Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, FL 32301

c. Southwest District Office of DER

District Manager  
Department of Environmental Regulation  
7601 Highway 301 N.  
Tampa, FL 33610

d. HCEPC

Chief, Air Group  
Hillsborough County Environmental  
Protection Commission  
1900 9th Ave.  
Tampa, FL 33605

12. The facility shall provide space for the future installation, if necessary, of a wet or dry flue gas scrubber.

PART II

General Conditions

1. The permittee shall comply with the notification and record-keeping requirements codified at 40 CFR Part 60, Subpart A, § 60.7.
2. The permittee shall retain records of all information resulting from monitoring activities and information indicating operating parameters as specified in the specific conditions of this permit for a minimum of two (2) years from the date of recording.
3. If, for any reason, the permittee does not comply with or will not be able to comply with the emission limitations specified in this permit, the permittee shall provide EPA with the following information in writing within five (5) days of such conditions:
  - (a) description of noncomplying emission(s),
  - (b) cause of noncompliance,
  - (c) anticipated time the noncompliance is expected to continue or, if corrected, the duration of the period of noncompliance,
  - (d) steps taken by the permittee to reduce and eliminate the noncomplying emission, and
  - (e) steps taken by the permittee to prevent recurrence of the noncomplying emission.

Failure to provide the above information when appropriate shall constitute a violation of the terms and conditions of this permit. Submittal of the aforementioned information does not constitute a waiver of the emission limitations contained within this permit.

4. Any proposed change in the information submitted in the application regarding facility emissions or changes in the quantity or quality of materials processed that would result in new or increased emissions or ambient air quality impact must be reported to EPA. If appropriate, modifications to the permit may then be made by EPA to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause violation of the emission limitations specified herein. Any construction or operation of the source in material variance with the application shall be considered a violation of this permit.

PERMIT TO CONSTRUCT UNDER THE RULES FOR THE  
PREVENTION OF SIGNIFICANT DETERIORATION OF AIR QUALITY

Pursuant to and in accordance with the provisions of Part C, Subpart 1 of the Clean Air Act, as amended, 42 U.S.C. §7470 et. seq., and the regulations promulgated thereunder at 40 CFR §52.21, as amended at 45 Fed. Reg. 52676, 52735-41 (August 7, 1980),

Hillsborough County, Florida

is, as of the effective date of this permit (PSD-FL-104) authorized to construct a stationary source at the following location:

Two miles east of Tampa on a site owned  
by the County on Faulkenburg Road, 0.6  
miles north of State Road 60.

Upon completion of authorized construction and commencement of operation/production, this stationary source shall be operated in accordance with the emission limitations, sampling requirements, monitoring requirements and other conditions set forth in the attached Specific Conditions (Part I) and General Conditions (Part II)

This permit is hereby issued on \_\_\_\_\_ and shall become effective thirty (30) days after receipt hereof unless a petition for administrative review is filed with the Administrator during that time. If a petition is filed any applicable effective date shall be determined in accordance with 40 CFR §124.19(f)(1).

If construction does not commence within 18 months after the effective date of this permit, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time, this permit shall expire and authorization to construct shall become invalid.

This authorization to construct/modify shall not relieve the owner or operator of the responsibility to comply fully with all applicable provisions of

Date Signed

Regional Administrator

5. In the event of any change in control or ownership of the source described in the permit, the permittee shall notify the succeeding owner of the existence of this permit and EPA of the change in control of ownership within 30 days.
6. The permittee shall allow representatives of the state and local environmental control agency or representatives of the EPA upon the presentation of credentials:
  - (a) to enter upon the permittee's premises, or other premises under the control of the permittee, where an air pollutant source is located or in which any records are required to be kept under the terms and conditions of the permit;
  - (b) to have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit, or the Clean Air Act;
  - (c) to inspect at reasonable times any monitoring equipment or monitoring method required in this permit;
  - (d) to sample at reasonable times any emissions of pollutants; and
  - (e) to perform at reasonable times an operation and maintenance inspection of the permitted source.
7. The conditions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstance is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

- p.2-51      Solid Waste Disposal. Figure 2.14 shows the location of existing and proposed solid waste management facilities within the County. Currently, all of the solid waste generated in Hillsborough County, including that generated by the three cities, is disposed of at the County's Hillsborough Heights landfill. The monthly solid waste quantities received at the Hillsborough Heights Sanitary Landfill from May 1981 to April 1983 are shown in Table 2.21. Approximately 2,000 tons per day (six days per week) of solid waste are disposed of at this site, of which about 750 tons per day (six days per week) is delivered by the City of Tampa.
- p.3-5      The Board of County Commissioners has officially stated that the County will own the project. The contractor will provide a full-service arrangement, including design, construction, acceptance testing, and 20 years of continuous operation, for a "mass-burn" type resource recovery facility with a continuous design rated capacity of 1,200 tons per day using three combustion/steam generation units each with a continuous design rated capacity of 400 tons per day. Additionally, the layout of the project will allow the addition of a fourth combustion/steam generation unit. Initial project construction will include a tipping area and refuse storage pit sized to handle 1,600 tons per day (continuous design rated capacity) and the stack shall have four (4) flues.
- p.3-6      Since the proposed facility will utilize mass-burn technology, there will be no preprocessing of wastes at the facility prior to combustion (except for some limited size reduction of oversized items.) A schematic diagram of a typical resource recovery facility is presented in Figure 3.1. MSW will be truck-delivered to the facility and ash residue removed by the same mode of transport. Under a 1600 tpd configuration, four 400 tpd units would be used in the facility.
- p.3-7      As noted above, while the proposed facility will have a maximum design rated capacity of 1600 tpd, its initial design rated capacity will be about 1200 tpd (comprised of three 400 tpd units). Each boiler unit operates independently from the others. It will, therefore, be possible to routinely shut down one unit for periods of maintenance and inspection.
- p.3-14      The pit shall be sized for minimum storage capacity of three days of solid waste; i.e. 4,800 tons of solid at a density of 450 pounds per cubic yard.

As noted previously, the proposed energy recovery facility is a new facility to be located in Hillsborough County. At ultimate size, the facility is planned would contain four boilers each with a rated capacity of 400 tpd of MSW for a total of 1600 tod.

p.13 The contractor will provide a full-service arrangement, including design, construction, acceptance testing, and 20 years of continuous operation, for a "mass-burn" type resource recovery facility with a continuous design rated capacity of 1,200 tons per day using three combustion/steam generation units each with a continuous design rated capacity of 400 tons per day. Additionally, the layout of the project will unit. Initial projection construction shall include a tipping area and refuse storage pit sized to handle 1,600 tons per day (continuous design rated capacity) and the stack shall have four (4) flues.

p.14 Once the site is certified by the state, no other state permits will be required for the project. Although the rate continuous design capacity of the project will be 1,200 tons per day (generating about 29 megawatts), site certification is being sought for an ultimate continuous design rated capacity of 1,600 tons per day (generated about 39 megawatts) since it is anticipated that the County may expand the project in the future.

C. Costs of pollution control system(s): (Note: show breakdown of estimated costs only for individual components/units of the project serving pollution control purposes. Information on actual costs shall be furnished with the application for operation permit.)

Electrostatic Precipitators (4) \$4,500.00 total

p.6-12 Total Weight Incinerated (lbs/hr) 133,333. Calculations by GPL 6/13/94 lbs/hr. 400 Tons/day/unit. Stack Diameter: flues, each 5'-9' Diam.

Suppl. Section V: Supplemental Requirements  
Total process input rate at design capacity (i.e. name-plate rating) is 1600 TPS, 4 units each at 400 TPD. Residue amount will be 29,000. lb/hr (dry basis) and is derived as follows:

Inert	=	(133,333 wet lb/feed	(0.7265 dry lb)	(0.3567 lb.	Carbon
Material		hr	wet lb		dry lb
		28,100 dry lb inert			
		hr			

Emission estimates are contained in the Prevention of Significant Deterioration (PSD) Permit Application

p.3-3 ...using 1,200 tons per day (tpd) of solid waste as fuel. However, certification for an ultimate site capacity of about 39 megawatts, capable

of processing 1,600 tons of solid waste per day, is being sought in anticipation of future solid waste disposal requirements.

Conceptual schematic diagram of the recovery facility is presented in Figure 3-2. Truck transport will be used to deliver MSW to the facility and to remove ash residue from the facility. Under a 1600 tpd configuration, four 400-tpd units would be used in the facility.

- p.3-5 Bottom ash from the furnace and flyash from the precipitator will be mixed prior to removal from the facility. Ash will comprise 10 percent of the volume and 25 percent of the weight of the MSW processed by the facility. The ash will be quenched with water to about 30 percent moisture prior to transport to a landfill.

As noted above, while the proposed facility will have a maximum design rated capacity of 1600 tpd, its initial throughput will be about 1200 tpd (comprised of three 400 tpd units). Each boiler unit operates independently from the others. It would, therefore, be possible to routinely shut down one unit for periods of maintenance and inspection

- p.3-9 The resource recovery facility will consist of four boilers each capable of firing 400 tpd of reference waste (see Section 3.3 of Volume I) at its maximum continuous rating (MCR). This firing rate will be adjusted as the waste quality changes, i.e. changes in the higher heating value (HHV). This is because one of the objectives of plant operation is to maintain the heat load to the boiler by maintaining the heat release on the grate. When the HHV is low (higher moisture and ash fractions, lower combustibles fraction) more waste will be processed, up to 440 tpd per boiler. Likewise, when the HHV is high, less waste will be processed.

The maximum load condition with a heating value of 4,000 Btu/lb resulted in the highest pollutant impacts and therefore this condition is used throughout the modeling assessment (see Section 7.1). This provides for a conservative analysis as the facility is expected to operate over the long-term, at its maximum continuous rating (MCR) of 400 TPD of reference solid waste subject to an availability of 85 percent.

- p.4-2 Emission Factors for Florida Resource Recovery Facilities  
Pounds per ton of MSW

<u>Hillsborough Proposed</u>	
<u>Particular matter</u>	<u>0.48</u>
<u>Sulfur dioxide</u>	<u>2.5</u>
<u>Nitrogen oxides</u>	<u>3.0</u>



<u>Carbon monoxide</u>	<u>1.8</u>
<u>Hydrocarbons</u>	<u>1.2</u>
<u>Lead</u>	<u>0.048</u>
<u>Mercury</u>	<u>0.0052</u>
<u>Beryllium</u>	<u>13.1 x 10<sup>-6</sup></u>
<u>Fluorides</u>	<u>0.06</u>
<u>Sulfuric acid</u>	<u>7.68 x 10<sup>-2</sup></u>
<u>Hydrogen chloride</u>	<u>4.0</u>

p.6-1      Best Available Control Technology/Lowest Achievable Emission Rate Analysis

It is assumed for this analysis that the facility will operate at 100% availability at the maximum firing rate of 110% of the nameplate rating (equal to 1760 TPD)

p.6-2      The stack parameters that were used in the modeling exercise simulated worst-case conditions. That is, recently cleaned boilers operating at maximum load conditions (1760 tpd or 110 percent of the nameplate rating) and firing a waste with a low HHV (4000 BTU/lb).

Although worst-case conditions should be used to calculate maximum short-term pollutant concentrations, annual average conditions would be used to calculate maximum long-term concentrations. However, to minimize the computer time involved with the modeling activities, all impacts, both short and long-term were predicted based on worst-case stack gas exit conditions. This would therefore over predict the long-term concentrations providing a degree of conservatism. Also, this assumption of worst-case conditions holds true even under conditions of changing waste throughput due to variations in waste quality (i.e. HHV).

Worst-case conditions at maximum load corresponds to firing 1760 tpd solid waste with an HHV of 4,000 BTU/lb and a stack gas exit temperature of 430 deg. F. (ESP Case).

p.7-3      The resource recovery facility will consist of four boilers each capable of firing 400 tons per day (tpd) of reference solid waste. The boilers will typically to be run above 100% of the maximum continuous rate (MCR) but operations at 110% of the MCR caused the greatest air quality impacts and was, therefore, used throughout the air quality analysis (See Section 3.0).

p.7-6      Emission Rates for the Proposed Facility

\*Emission rates based on a throughput equal to 110% of design capacity.

Changes in Paragraph 2, page 1 of the permit:

For the modification of a 1,200 ton per day resource recovery facility located at the permitted existing municipal solid waste resource recovery facility in Hillsborough County approximately two times east of Tampa on the county's Faulkenburg Road site.

This permit is issued under the provisions of Chapter 403, and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing (s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of a 1,200 ton per day resource recovery facility located at the permitted existing municipal solid waste resource recovery facility in Hillsborough County approximately two miles east of Tampa on the County's Faulkenburg Road site. The UTM coordinates of the plant are 368.2 km E and 3092.7 km N.

✱ 1-10  
p.2-10

This permit is valid only for the specific processes and operations applied for an indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

p.6-10

Nitrogen Oxides: 9.34 gr/dscf-12%, or 6.4 lb/ton, whichever is more restrictive.

The concentration limit is intended to be equivalent to the lb/ton limit. The concentration limits were derived by dividing the lb/ton limits by the calculated volume of flue gas limits by the calculated volume of flue gas produced when one ton of refuse is combusted. If actual process conditions, i.e. dscf per ton of refuse fired, are different than projected by the applicant, DER may, at its discretion, determine compliance based upon the lb/ton limits.

p.8-10

The boilers shall not be loaded in excess of their rated capacity of 36,666 pounds per hour each.

p.3

Page 8, paragraph 3, Modeling Methodology. It should be noted that the prior modeling for the facility utilized a conservative approach. The stack parameters and emission rates were based on a maximum facility

capacity of 1,760 tons per day and 100% facility availability. As currently constructed, however, the plant will normally handle approximately 1200 tons per day. In addition, it is generally assumed that resource recovery facilities will only be available approximately 85% of the time.

- p.2 Under Section IV, captioned 'BACT Determination,' OMSH would propose changing the second sentence of the first paragraph to read as follows:

The ERF is designed to burn up to 1200 tons per day (TPD) of refuse at a heating value of 4500 BTU's per pound, which amount will increase or decrease, respectively, based upon lower or higher heating values, in each case, resulting in an electrical generating capacity of 29 megawatts.

- p.2 The proposed project will be an energy recovery facility boiler which could be used up to 1200 tons per day (TPD) of refuse as fuel.

- p.3 The applicant is proposing the construction of three 400 TPD mass burn technology incinerators for the processing of up to 1200 TPD of municipal solid waste.

The maximum annual emissions from all three units for all regulated pollutants have been estimated by the applicant. These emission rates, and the PSD significant emission rates, are listed in Table II.1.

The proposed incinerators will each have a charging rate of 400 tons per day.

Table II-1

<u>Proposed Maximum Emission Rate (Ton/Yr) (1)</u>	
<u>Particulate Matter</u>	<u>90</u>
<u>Volatile Organic Compounds</u>	<u>44</u>
<u>Sulfur Dioxide</u>	<u>701</u>
<u>Carbon Monoxide</u>	<u>395</u>
<u>Nitrogrn Oxides</u>	<u>657</u>
<u>Lead</u>	<u>4.4</u>
<u>Mercury</u>	<u>1.1</u>
<u>Beryllium</u>	<u>0.003</u>
<u>Fluorides</u>	<u>13</u>
<u>Sulfuric Acid Mist</u>	<u>17</u>

(1) Based on processing 1200 tons per day. MSW for 365 days per year

p.6      The applicant ultimately plans to construct a 1600 ton per day municipal solid waste (MSW) incinerator facility to be located on Faulkenburg Road in Tampa, Florida.

The present plans are to install the 400 tons per day (TPD) incinerator-boiler units to process a total of 1200 TPD of MSW and generate 29 megawatts of electrical power.

Each incinerator will have an approximate heat input of 150 million Btu per hour, or 49 megawatts, based upon a MSW calorific content of 4500 Btu per pound. Each incinerator will be scheduled to operate 8760 hours per year and on this basis the tons per year of the various air pollutants emitted as calculated.

Screening analyses were initially run using 26 prescribed meteorological conditions with the stack and emission data of the proposed ERF. These runs determined the worst-case boiler operating condition, identified those pollutants emitted from the ERF with a potential for significant impact, and established receptor locations for the more refined modeling. The results of these analyses indicated that a 110 percent boiler load condition (440 tons per day throughput) yielded the greatest air quality impact with the maximum ground-level concentrations occurring approximately 400 meters from the stack.

Table V-2

<u>Pollutant</u>	
<u>Particulate Matter</u>	<u>0.38</u>
<u>Sulfur Dioxide</u>	<u>3.2.</u>
<u>Carbon Monoxide</u>	<u>1.8</u>
<u>Nitrogen Oxides</u>	<u>3.0</u>
<u>Lead</u>	<u>0.02</u>
<u>Hydrocarbons (non-methane)</u>	<u>0.2</u>
<u>Mercury</u>	<u>0.0052</u>
<u>Beryllium</u>	<u>1.0000131</u>
<u>Fluorides</u>	<u>0.06</u>
<u>Sulfur Acid Mist</u>	<u>0.0768</u>
<u>Hydrogen Chloride</u>	<u>4.0</u>

(1) Based on a throughput of 110 percent of design capacity and the operation of four incinerator

Table V-3

(1) Highest second-high concentration assuming four incinerators

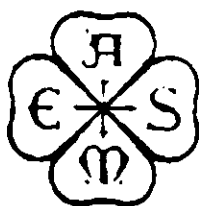
## Appendix - I

p.4

The incinerator boilers shall not be loaded in excess of their rated capacity of 36,666 pounds per hour each.

= 440 Tpy

# Combustion Fundamentals for Waste Incineration



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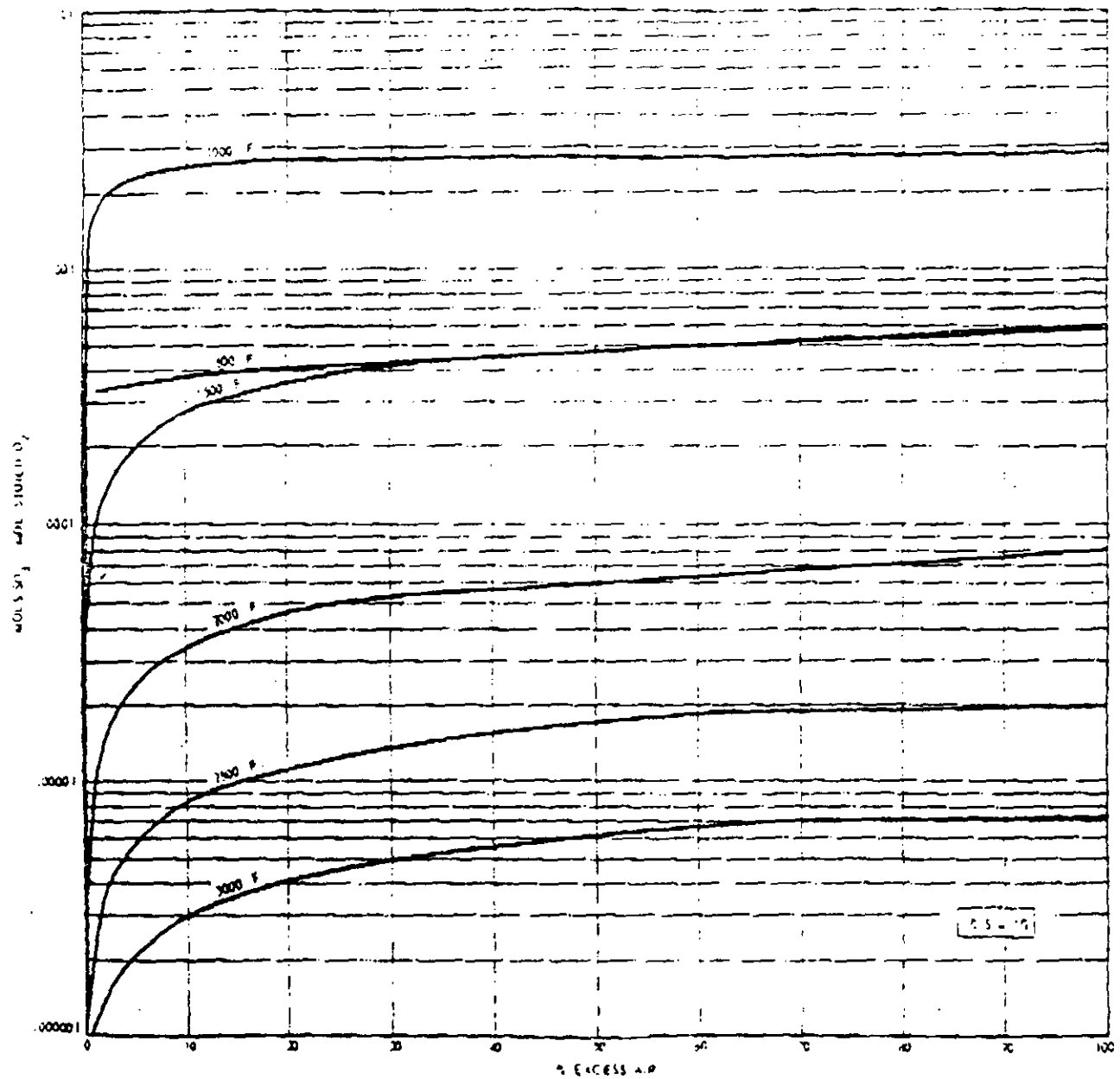


FIG. 8.1

ATTACHMENT "C" P. 4

EDITOR'S NOTE Numbers in parentheses indicate editions. References are noted by numbers in brackets and appear at the end of their respective Chapter or Table. Numbered Source references (also in brackets) for Appendices G and H appear only within the text, since they primarily comprise text material.

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## Chapter 8 - Sulfur Oxides

When sulfur is present in a hydrocarbon fuel, it will form oxides under equilibrium combustion conditions. These can be either sulfur dioxide ( $\text{SO}_2$ ) or sulfur trioxide ( $\text{SO}_3$ ). The amount that goes to  $\text{SO}_2$  in relation to  $\text{SO}_3$  will always be small, but it is often important. The  $\text{SO}_3$  form readily combines with water vapor to form a high dew point sulfuric acid that can be both visible and corrosive. Equilibrium calculations for sulfur containing hydrocarbon fuels were made in the following limits.

Sulfur Content: 0.67 to 5.47%  
Excess Air: 0 to 100%  
Temperature: 500 to 3000°F

The results are plotted on Fig. 8.1. Values of  $\text{SO}_3$  expressed as mols per mol of stoichiometric oxygen are plotted vs. excess air in percent with values given along lines of constant temperature. The curve is drawn for 1 percent sulfur fuel content by weight. Values for other percent sulfur contents can be obtained by multiplying the curve by the ratio of the actual sulfur content to one.

*Example:*

A 2.8 percent sulfur fuel is burned at 2000°F with 25 percent excess air. Determine the ppm of  $\text{SO}_2$  and  $\text{SO}_3$  if the hydrocarbon part of the fuel is represented by  $\text{C}_4\text{H}_8$ .

From Fig. 8.1, a value of 0.00005 mols  $\text{SO}_3$  per stoichiometric mol of  $\text{O}_2$  is found at 2000°F and 25 percent excess air. This is for a 1 percent sulfur fuel.

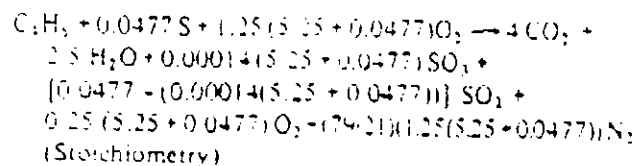
For a 2.8 percent sulfur fuel, the amount of  $\text{SO}_3$  produced would be:

$$(2.8)(0.00005) = 0.00014 \text{ mols } \text{SO}_3 \text{ per mol stoic. } \text{O}_2$$

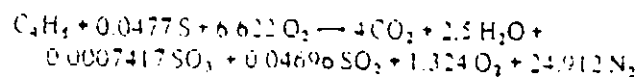
To convert to ppm,

$$\begin{aligned} 4 \text{ mol } \text{C}_4\text{H}_8 &= 53 \text{ lbs} \\ 1-.028 &= 0.972 \text{ lbs } \text{C}_4\text{H}_8 \text{ per } 0.028 \text{ lbs S} \\ (0.028/32) &= 0.000875 \text{ mols S/0.972 lbs } \text{C}_4\text{H}_8 \\ \left( \frac{0.000875}{0.972} \right) (53) &= 0.0477 \text{ mols S/mol } \text{C}_4\text{H}_8 \end{aligned}$$

So



or,



On a dry basis, the ppm of  $\text{SO}_3$  is:

$$\begin{aligned} \text{ppm } \text{SO}_3 &= \frac{0.0007417}{4 + 0.0007417 + 0.04696 + 1.324 + 24.912} \times 10^6 \\ &= \frac{0.0007417(10^6)}{30.2837} = 24.5 \end{aligned}$$

$$\text{ppm } \text{SO}_2 = \frac{0.04696(10^6)}{30.2837} = 1550.7$$

$$\text{ppm } \text{SO}_x = 24.5 + 1550.7 = 1575$$

Similar calculations can be made for any fuel whose molecular form or ultimate analysis is known. Note that for this particular case, 1% percent of the sulfur was converted to  $\text{SO}_3$ .

The relationship of mols to pounds per million Btu can also be calculated or approximated.

*Example:*

Express the results of the previous example as lbs/10<sup>6</sup> Btu. Since neither a heat of formation nor heating value is available for  $\text{C}_4\text{H}_8$ , assume 1 mol of stoichiometric  $\text{O}_2$  is equal to a fuel heating value of 184,000 Btu.

$$\begin{aligned} \text{lbs } \text{SO}_3 / 10^6 \text{ Btu} &= \frac{0.00014 \text{ mols } \text{SO}_3}{\text{mol } \text{O}_2} \times \frac{\text{mol } \text{O}_2}{184,000 \text{ Btu}} \times 10^6 \times \frac{80 \text{ lbs}}{\text{mol } \text{SO}_3} \\ &= 0.06 \end{aligned}$$

$$\text{lbs } \text{SO}_2 / 10^6 \text{ Btu} = \frac{1550.7 \text{ ppm } \text{SO}_2}{24.5 \text{ ppm } \text{SO}_3} \times \frac{64 \text{ lbs } \text{SO}_2}{80 \text{ lbs } \text{SO}_3} \times 0.06 = 3.014$$

Final Determination

Hillsborough County, Florida

Resource Recovery Facility Modification  
File No. PSD-FL-121

Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
Central Air Permitting

October 14, 1987

Final Determination

The application by Hillsborough County, through Ogden Martin Systems of Hillsborough, Inc., to increase the allowable nitrogen oxides (NOx) and sulfuric acid mist (acid mist) emissions at the Resource Recovery Facility in Hillsborough County (HCERF), has been reviewed by the Bureau of Air Quality Management. Public Notice of the Department's Intent to Issue the permit was published in the Tampa Tribune on July 19, 1987.

Comments were received from Bruce Miller, U.S. EPA Region IV; David Dee, attorney for Hillsborough County; and Mr. J. R. Treshler of Ogden Projects, Inc. Although the Department acknowledges that comments concerning the Preliminary Determination help state some issues more clearly, responses will be limited to comments pertaining to the proposed permit. Responses to the comments received are addressed below, on a letter by letter basis.

Letter 1, Hillsborough County (attachment 4)

Comment 6, page 2: Attachment 4 should convey to the County what EPA's view is on the Department's permit processing approach.

Comment 1, page 3: Several specific conditions were repeated from the original permit, PSD-FL-104, in order to maintain continuity on issues pertaining to NOx and acid mist in the proposed permit, PSD-FL-121.

Comments 2, 3, 4, 5, and 6; pages 3 and 4: The Department will make changes in the permit to reflect agreement with these comments.

Letter 2, Ogden Projects (attachment 5)

Comment 1, page 3: The emission increases of NOx, acid mist and particulates are addressed together in the permit overview because they are in the same facility and covered under the same permit.

Comment 2, page 3: The Department will make a change in the permit to make clear the fact that emission limits and compliance testing for acid mist have been deleted in the proposed permit.

Letter 3, U.S. EPA (attachment 6)

The Department agrees with EPA's comments that the proposed permit should state how permit PSD-FL-121 supercedes permit PSD-FL-104 on emission limits for NOx and acid mist. A paragraph will be added to the permit to that effect.

## Appendix - I

### Letter 4, U.S. Department of the Interior (attachment 7)

The Department of the Interior's comment arrived after the closing date of the comment period, however, with the permission of the applicant, DER has reviewed the comment as a courtesy.

DER does not feel that the proposed NOx emission rate of the Hillsborough County RRF shall be compared to other facilities in the State of Florida which incorporate a different type of technology than the Hillsborough facility. In addition, DER is not supportive of setting an emissions limitation which is equivalent to any one test result.

### Letter 5, Hillsborough County Environmental Protection Commission (attachment 8)

The Hillsborough County Environmental Protection Commission's comment arrived after the closing date of the comment period. Upon discussing the situation with the applicant, the Department has decided to not include these comments as part of the Final Determination, but will address the comments at a later date by means of a letter.

Listed below are the changes the Department will make in the proposed permit to reflect consideration of the comments received from all the parties, as mentioned earlier.

### Changes in Paragraph 2, page 1 of the permit

From:

For the modification of a 1,200 ton per day resource recovery facility to be located at the permitted existing municipal solid waste resource recovery facility in Hillsborough County approximately two miles east of Tampa on the county's Faulkenburg Road site. The UTM coordinates of the proposed plant are 368.2 km E and 3092.7 km N.

To:

For the modification of a 1,200 ton per day resource recovery facility located at the permitted existing municipal solid waste resource recovery facility in Hillsborough County approximately two miles east of Tampa on the county's Faulkenburg Road site. The UTM coordinates of the plant are 368.2 km E and 3092.7 km N.

### Change in Paragraph 3, page 1 of the permit

From:

This permit solely pertains to the pollutant increases (nitrogen oxides, sulfuric acid mist, and particulates) which result from

## Appendix - I

this modification. Only specific conditions 1.a.(3), 1.b., and 1.c.(1) have been modified and/or added to reflect the changes requested in this modification. For clarity purposes, the remaining specific conditions which pertain to the pollutants addressed in this modification have been repeated as they appeared in the original PSD permit (PSD-FL-104). The other pollutants emitted from this facility are addressed in the original PSD permit.

To:

This permit solely pertains to the pollutant increases (nitrogen oxides, sulfuric acid mist, and particulates) which result from this modification. Only specific condition 1. has been modified to reflect the changes requested in this modification. For clarity purposes, the remaining specific conditions which pertain to the pollutants addressed in this modification have been repeated as they appeared in the original PSD permit (PSD-FL-104) and also Specific Condition No. 11 has been added. The other pollutants emitted from this facility are addressed in the original PSD permit. This facility is not subject to any emission limitations or testing requirements for sulfuric acid mist. Except as expressly provided in the specific conditions contained herein, all of the other provisions of permit No. PSD-FL-104 remain in effect.

### Changes in General Condition No. 13

From:

13. This permit also constitutes:

- ( ) Determination of Best Available Control Technology (BACT)
- ( ) Determination of Prevention of Significant Deterioration (PSD)
- ( ) Compliance with New Source Performance Standards.

To:

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards.

### Changes in Specific Conditions No. 1.a.(4)

From:

## Appendix - I

(4) Each of the emission limits in conditions (1) through (3) is to be expressed as a 3-hour average. This averaging time, which is applicable to the emission limits for all pollutants, is based on the expected length of time for a particulate compliance test. The concentration standards in conditions (2) and (3) are included as the primary compliance limit to facilitate simpler compliance testing, since the process weight, in tons per hour, is not easily measured. The concentration limit is intended to be equivalent to the lb/ton limit. The concentration limits were derived by dividing the lb/ton limits by the calculated volume of flue gas produced when one ton of refuse is combusted. If actual process conditions, i.e., dscf per ton of refuse fired, are different than projected by the applicant, EPA may, at its discretion, determine compliance based upon the lb/ton limits.

To:

(4) Each of the emission limits in conditions (1) and (3) is to be expressed as a 3-hour average. This averaging time, which is applicable to the emission limits for all pollutants, is based on the expected length of time for a particulate compliance test. The concentration standards in conditions (1) and (3) are included as the primary compliance limit to facilitate simpler compliance testing, since the process weight, in tons per hour, is not easily measured. The concentration limit is intended to be equivalent to the lb/ton limit. The concentration limits were derived by dividing the lb/ton limits by the calculated volume of flue gas produced when one ton of refuse is combusted. If actual process conditions, i.e., dscf per ton of refuse fired, are different than projected by the applicant, EPA may, at its discretion, determine compliance based upon the lb/ton limits.

### Addition to Specific Condition 1.a.

(7) This facility is not subject to any emission limitations or testing requirements for sulfuric acid mist.

### Change in Specific Condition 1.c.(2)g

From:

g. Method 7 for concentration of nitrogen oxides. Four samples, taken at approximately 15 minute intervals, shall constitute one test run.

To:

g. Method 7E for concentration of nitrogen oxides.

## Appendix - I

### Add Specific Condition No. 11

11. This permit shall supercede the NOx and acid mist emission limitations and testing requirements as contained in permit PSD-FL-104.

### Attachments to be Added:

4. Letter from David Dee, attorney for Hillsborough County, dated August 10, 1987.

5. Letter from Ogden Projects, dated August 14, 1987.

6. Letter from U.S. EPA dated September 11, 1987.

7. Letter from U.S. Department of the Interior, dated September 22, 1987.

8. Letter from Hillsborough County Environmental Protection Commission, dated October 2, 1987.

The final action of the Department will be to issue the permit as proposed in the Preliminary Determination with the above mentioned ammendments.

# Appendix - I

## THE TAMPA TRIBUNE

Published Daily  
Tampa, Hillsborough County, Florida

State of Florida  
County of Hillsborough

Before the undersigned authority personally appeared  
G. T. Gleason, who on oath says that he is Controller of The Tampa Tribune, a daily  
newspaper published at Tampa in Hillsborough County, Florida; that the attached copy  
of advertisement being a

### LEGAL NOTICE

in the matter of STATE OF FLORIDA DEPARTMENT OF  
PROPOSED AGENCY ACTION ON PERMIT  
APPLICATION

was published in said newspaper in the issues of  
JULY 19, 1987

Affiant further says that the said The Tampa Tribune is a newspaper published at  
Tampa, in said Hillsborough County, Florida, and that the said newspaper has  
heretofore been continuously published in said Hillsborough County, Florida, each day  
and has been entered as second class mail matter at the post office in Tampa, in said  
Hillsborough County, Florida, for a period of one year next preceding the first publica-  
tion of the attached copy of advertisement; and affiant further says that he has neither  
paid nor promised any person, firm, or corporation any discount, rebate, commission or  
refund for the purpose of securing this advertisement for publication in the said  
newspaper.

*G. T. Gleason*

Sworn to and subscribed before me, this 19th day  
of JULY A.D. 1987

*Leslie R. Pualta*

(SEAL)

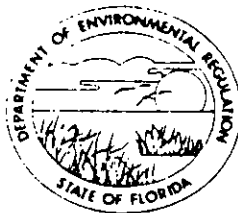
Notary Public, State of Florida  
My Commission Expires Nov. 23, 1990  
Bonded thru Troy Tain - Insurance Inc.

Notice of Proposed Agency Action  
After careful consideration of the Department of Environmental Regulation's review of the application for a permit to discharge pollutants into the water of Hillsborough County, the Department has determined that the proposed discharge of pollutants into the water of Hillsborough County, Florida, will increase the ambient concentrations of nitrogen oxides, sulfuric acid mist, and particulate emissions from their existing levels. The facility is located in Hillsborough County, approximately two miles east of Tampa on the County's Fairbank Road site. A determination of best available control technology (BACT) was required.  
This application was reviewed under Florida Administrative Code Rules 17-2.500, Prevention of Significant Deterioration, Emissions of Nitrogen oxides, sulfuric acid mist, and particulates will increase by 739.289 and 7 tons per year, respectively. The allowable emissions of the other pollutants are not being increased. The Department has completed a study of the potential ambient air impact due to the increase in emissions. Based on this study, the Department has reasonable assurance that the increase in emissions will not cause or contribute to an exceedance of the ambient air quality standards for these pollutants. No PSD increment analysis is required for this modification.  
Persons whose substantial interests are affected by the Department's proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, Florida Statutes. The petition must conform to the requirements of Chapters 17-103 and 28-5, Florida Administrative Code, and must be filed (received) in the Office of General Counsel of the Department at 2600 Blair Stone Road, Twin Towers Office Building, Tallahassee, FL 32399-2400, within fourteen (14) days of publication of this notice. Failure to file a request for hearing within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under Section 120.57, Florida Statutes.  
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this preliminary statement. Therefore, persons who may not object to the proposed agency action may wish to intervene in the proceeding. A petition for intervention must be filed pursuant to Model Rule 28-5.207 at least five (5) days before the final hearing and be filed with the hearing officer if one has been assigned at the Division of Administrative Hearings, Department of Administration, 2009 Apalachee Parkway, Tallahassee, Florida 32399-2400. If no hearing officer has been assigned, the petition is to be filed with the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400. Failure to petition to intervene within the allowed time frame constitutes a waiver of any right such person has to request a hearing under Section 120.57, Florida Statutes.  
The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:  
Dept. of Environmental Regulation  
Southwest District  
7601 Highway 301 North  
Tampa, Florida 33610  
Dept. of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400  
Hillsborough County Environmental Protection Commission  
1410 N. 21st Street  
Tampa, Florida 33605  
Any person may send written comments on the proposed action to Mr. Bill Thomas of the Department's Tallahassee address. All comments mailed within 30 days of the publication of this notice will be considered in the Department's final determination.



STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2600 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32399-2400



BOB MARTINEZ  
GOVERNOR  
DALE TWACHTMANN  
SECRETARY

PERMITTEE:  
Hillsborough County  
Hillsborough County Courthouse  
419 Pierce Street  
Tampa, Florida 33602

Permit Number: PSD-FL-121  
Expiration Date: March 31, 1988  
County: Hillsborough  
Latitude/Longitude: 27° 57' 00" N  
82° 40' 22" W  
Project: Hillsborough County  
Resource Recovery Modification

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rule(s) 17-2 and 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

For the modification of a 1,200 ton per day resource recovery facility located at the permitted existing municipal solid waste resource recovery facility in Hillsborough County approximately two miles east of Tampa on the county's Faulkenburg Road site. The UTM coordinates of the plant are 368.2 km E and 3092.7 km N.

This permit solely pertains to the pollutant increases (nitrogen oxides, sulfuric acid mist, and particulates) which result from this modification. Only Specific Condition No. 1 has been modified to reflect the changes requested in this modification. For clarity purposes, the remaining specific conditions which pertain to the pollutants addressed in this modification have been repeated as they appeared in the original PSD permit (PSD-FL-104) and also Specific Condition No. 11 has been added. The other pollutants emitted from this facility are addressed in the original PSD permit. This facility is not subject to any emission limitations or testing requirements for sulfuric acid mist. Except as expressly provided in the Specific Conditions contained herein, all of the other provisions of permit No. PSD-FL-104 remain in effect.

Attachments:

1. May 1, 1987, letter by Richard W. Seelinger.
2. June 8, 1987, letter by Bruce P. Miller, EPA Region IV.
3. June 12, 1987, letter by J. R. Treshler.
4. Letter from David Dee, attorney for Hillsborough County dated August 10, 1987.
5. Letter from Ogden Projects, dated August 14, 1987.

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PERMITTEE:  
Hillsborough County

Permit Number: AC PSD-FL-121  
Expiration Date: March 31, 1988

6. Letter from U.S. EPA dated September 11, 1987.
7. Letter from U.S. Department of the Interior, dated September 22, 1987.
8. Letter from Hillsborough County Environmental Protection Commission, dated October 2, 1987.

### GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth herein are "Permit Conditions" and as such are binding upon the permittee and enforceable pursuant to the authority of Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is hereby placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of the "Permit Conditions" by the permittee, its agents, employees, servants or representatives.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Nor does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit does not constitute a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute state recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the state. Only the Trustees of the Internal Improvement Trust Fund may express state opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, plant or aquatic life or property and penalties therefore caused by the construction or operation of this permitted source, nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

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PERMITTEE:  
Hillsborough County

Permit Number: PSD-FL-121  
Expiration Date: March 31, 1988

### GENERAL CONDITIONS:

6. The permittee shall at all times properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law, access to the premises, at reasonable times, where the permitted activity is located or conducted for the purpose of:

- a. Having access to and copying any records that must be kept under the conditions of the permit;
- b. Inspecting the facility, equipment, practices, or operations regulated or required under this permit; and
- c. Sampling or monitoring any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately notify and provide the Department with the following information:

- a. a description of and cause of non-compliance; and
- b. the period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance.

## Appendix - I

PERMITTEE:  
Hillsborough County

Permit Number: PSD-FL-121  
Expiration Date: March 31, 1988

### GENERAL CONDITIONS

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source, which are submitted to the Department, may be used by the Department as evidence in any enforcement case arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 17-4.12 and 17-30.30, as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit is required to be kept at the work site of the permitted activity during the entire period of construction or operation.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards.

14. The permittee shall comply with the following monitoring and record keeping requirements:

- a. Upon request, the permittee shall furnish all records and plans required under Department rules. The retention period for all records will be extended automatically, unless otherwise stipulated by the department, during the course of any unresolved enforcement action.

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PERMITTEE:  
Hillsborough County

Permit Number: PSD-FL-121  
Expiration Date: March 31, 1988

### GENERAL CONDITIONS:

- b. The permittee shall retain at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation), copies of all reports required by this permit, and records of all data used to complete the application for this permit. The time period of retention shall be at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.
- c. Records of monitoring information shall include:
  - the date, exact place, and time of sampling or measurements;
  - the person responsible for performing the sampling or measurements;
  - the date(s) analyses were performed;
  - the person responsible for performing the analyses;
  - the analytical techniques or methods used; and
  - the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be submitted or corrected promptly.

### SPECIFIC CONDITIONS:

#### 1. Emission Limitations

- a. Stack emissions from each unit shall not exceed the following:
  - (1) Particulate matter: 0.021 grains per dry standard cubic foot corrected to 12% CO<sub>2</sub> (gr/dscf-12%) or 7.0 pounds per hour per unit, whichever is more restrictive.

PERMITTEE:  
Hillsborough County

Permit Number: PSD-FL-121  
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SPECIFIC CONDITIONS:

- (2) Visible Emissions: Opacity of stack emissions shall not be greater than 15% opacity except that 20% opacity may be allowed for one six-minute period (average of 24 consecutive observations recorded at 15-second intervals) in any one hour. Excess opacity resulting from startup or shutdown shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess opacity shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by DER for longer duration.

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 start-up or shutdown shall be prohibited. Opacity of other emission points at the plant shall not exceed 5%.

- (3) Nitrogen Oxides: 0.34 gr/dscf-12%, or 6.4 lb/ton, whichever is more restrictive
- (4) Each of the emission limits in conditions (1) and (3) is to be expressed as a 3-hour average. This averaging time, which is applicable to the emission limits for all pollutants, is based on the expected length of time for a particulate compliance test. The concentration standards in conditions (1) and (3) are included as the primary compliance limit to facilitate simpler compliance testing, since the process weight, in tons per hour, is not easily measured. The concentration limit is intended to be equivalent to the lb/ton limit. The concentration limits were derived by dividing the lb/ton limits by the calculated volume of flue gas produced when one ton of refuse is combusted. If actual process conditions, i.e. dscf per ton of refuse fired, are different than projected by the applicant, DER may, at its discretion, determine compliance based upon the lb/ton limits.
- (5) The potential for dust generation by ash handling activities will be mitigated by quenching the ash prior to loading in ash transport trucks.

PERMITTEE:  
Hillsborough County

Permit Number: PSD-FL-121.  
Expiration Date: March 31, 1988

SPECIFIC CONDITIONS:

Additionally, all portions of the proposed facility including the ash handling facility which have the potential for fugitive emissions will be enclosed. Also those areas which have to be open for operational purposes, e.g., tipping floor of the refuse bunker while trucks are entering and leaving, will be under negative air pressure.

- (6) Each of the three units is subject to 40 CFR Part 60, Subpart E, New Source Performance Standards (NSPS), except that where requirements in this permit are more restrictive, the requirements in this permit shall apply.
- b. Ash handling facility emissions shall not exceed 1.63 pounds per hour.
- c. Compliance Tests
  - (1) Compliance tests for particulate matter, and, nitrogen oxides shall be conducted in accordance with 40 CFR 60.8 (a), (b), (d), (e), and (f), except that an annual test will be conducted for particulate matter. Compliance tests for opacity will be conducted simultaneously with compliance tests for particulate matter. The compliance test requirements for the ash handling facility shall be waived in accordance with Rule 17-2.700(3)(d), FAC.

Compliance tests shall be conducted for such time and under such conditions as specified by EPA prior to the compliance test. These conditions will be specified by DER upon notification of performance tests as required by General Condition 1. The permittee shall make available to DER such records as may be necessary to determine the conditions of the performance tests.
  - (2) The following test methods and procedures from 40 CFR Parts 60 and 61 shall be used for compliance testing:
    - a. Method 1 for selection of sample site and sample traverses.

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PERMITTEE:  
Hillsborough County

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Expiration Date: March 31, 1988

### SPECIFIC CONDITIONS:

- b. Method 2 for determining stack gas flow rate when converting concentrations to or from mass emission limits.
  - c. Method 3 for gas analysis when needed for calculation of molecular weight or percent CO<sub>2</sub>.
  - d. Method 4 for determining moisture content when converting stack velocity to dry volumetric flow rate for use in converting concentrations in dry gases to or from mass emission limits.
  - e. Method 5 for concentration of particulate matter and associated moisture content. One sample shall constitute one test run.
  - f. Method 9 for visible determination of the opacity of emissions.
  - g. Method 7E for concentration of nitrogen oxides.
- (3) The stack tests shall be performed at +10% of the heat input rate of 150 million Btu per hour per boiler; however, compliance with the particulate matter emission limit shall be at design capacity.
- 2. The height of the boiler exhaust stack shall not be less than 220 feet above ground level at the base of the stack.
  - 3. The boilers shall not be loaded in excess of their rated capacity of 36,666 pounds per hour each.
  - 4. The boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, rated capacity and certification number.



## Appendix - I

PERMITTEE:  
Hillsborough County

Permit Number: PSD-FL-121  
Expiration Date: March 31, 1988

### SPECIFIC CONDITIONS:

5. Grease, scum, grit screenings or sewage sludge shall not be charged into the solid waste to energy facility boilers.

6. Electrostatic Precipitator

The electrostatic precipitator shall be designed and constructed to limit particulate emissions to no more than 0.021 grains per dscf corrected to 12% CO<sub>2</sub>.

7. Stack Monitoring Program

The permittee shall install and operate continuous monitoring devices for stack oxygen and opacity. The monitoring devices shall meet the applicable requirements of Rule 17- 2.710, FAC, 40 CFR Part 60, Subparts A and D, Sections 60.13 and 60.45 respectively, except that emission rates shall be calculated in units consistent with emission limits in this permit. The conversion procedure shall be approved by DER.

8. Reporting

- a. A copy of the results of the stack tests shall be submitted within forty-five days of testing to the DER Southwest Florida District Office, the Hillsborough County Environmental Protection Commission (HCEPC) and EPA Region IV.

- b. Stack monitoring shall be reported to HCEPC, the DER Southwest District Office and EPA Region IV on a quarterly basis in accordance with Section 17-2.710, FAC, and 40 CFR, Part 60, Subsection 60.7.

9. Fuel

The Resource Recovery Facility shall utilize refuse such as garbage and trash (as defined in Chapter 17-7, FAC) but not sludge from sewage treatment plants as its fuel. Use of alternate fuels would necessitate application for a modification to this permit.

# Appendix - I

PERMITTEE:  
Hillsborough County

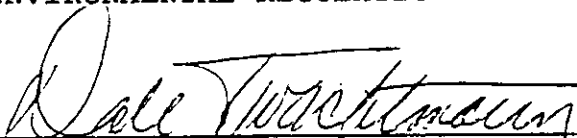
Permit Number: PSD-FL-121  
Expiration Date: March 31, 1988

## SPECIFIC CONDITIONS:

10. This permit shall supercede the NOx and acid mist emission limitations and testing requirements as contained in permit PSD-FL-104.

Issued this 14 day of Oct., 1987

STATE OF FLORIDA DEPARTMENT OF  
ENVIRONMENTAL REGULATION

  
Dale Twachtman, Secretary

**Appendix - I**

ATTACHMENT 4

# Appendix - I

CARLTON, FIELDS, WARD, EMMANUEL, SMITH, CUTLER & KENT, P. A.

ATTORNEYS AT LAW

ONE HARBOUR PLACE  
P. O. BOX 3239  
TAMPA, FLORIDA 33601  
(813) 223-7000

CNA BUILDING  
P. O. BOX 1171  
ORLANDO, FLORIDA 32802  
(305) 849-0300

200 EAST GOVERNMENT ST.  
P. O. BOX 12426  
PENSACOLA, FLORIDA 32562  
(904) 434-0142

FIRST FLORIDA BANK BUILDING  
P. O. DRAWER 190  
TALLAHASSEE, FLORIDA 32302  
(904) 224-1585

FLORIDA NATIONAL BANK TOWER  
P. O. BOX 4700  
JACKSONVILLE, FLORIDA 32201  
(904) 354-1600

DER

AUG 11 1987

BAQM

PLEASE REPLY TO:

August 10, 1987

Tallahassee

Clair H. Fancy  
Deputy Chief  
Bureau of Air Quality Management  
Department of Environmental  
Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Hillsborough County resource recovery facility;  
DER File No. PSD-FL-121

Dear Mr. Fancy:

This law firm represents Hillsborough County in the above-referenced case. On behalf of Hillsborough County, we are submitting the following comments concerning the Intent to Issue, Technical Evaluation, Preliminary Determination and draft permit issued by the Department of Environmental Regulation (DER) on July 14, 1987.

For the purposes of this submittal, words which have been underlined should be added to the draft document. Words which have been stricken should be deleted.

## Intent to Issue

Page 1, paragraph 2, should state that the County applied for a permit modification for "particulate emissions from the existing refuse to energy facility . . . ."

## Technical Evaluation and Preliminary Determination

1. Page 1, paragraph 1. Hillsborough County believes that its first PSD permit was properly issued pursuant to the Florida Electrical Power Plant Siting Act. The County does not agree

## Appendix - I

Clair Fancy  
August 10, 1987  
Page Two

with the statements in the Preliminary Determination which suggest that the Florida PSD regulations, State Implementation Plan, Power Plant Siting Act, or original Hillsborough County PSD permit were not valid.

2. Page 1, paragraph 1. For purposes of completeness, the Preliminary Determination should discuss the PSD permit (PSD-FL-104) that was issued by the United States Environmental Protection Agency (EPA). Specifically, a preliminary determination was prepared and public comments were solicited by DER on April 6, 1986. DER issued a final determination and recommended issuance of the permit on May 21, 1986. A second PSD permit (PSD-FL-104) for the County's facility was issued by EPA on July 7, 1986.

3. Page 2, paragraph 1. The Preliminary Determination should state that the resource recovery facility has been built. It is no longer a "proposed" project.

4. Page 2, paragraph 2. The Preliminary Determination should be revised to show that "The ERF is will be located . . ." near Faulkenberg Road. Since the site has been the scene of construction activity for the last 2 ½ years, DER should delete the statement that "[t]he site has been recently used as improved pasture for cattle grazing."

5. Page 2, paragraph 3. "The proposed site of the Hillsborough County ERF" is in an area designated as nonattainment for ozone.

6. Pages 2-3, Section II, Rule Applicability. Hillsborough County has requested modifications to certain permit conditions for the resource recovery facility. In the Preliminary Determination, DER classified the County's request as a major modification to a major source. We are not sure whether EPA will agree with DER's decision. Since we have had problems in the past with EPA's approvals of this project, we would like to ensure that EPA approves the proposed DER procedure and decision in this case. Accordingly, we respectfully request the Department to obtain a letter or other written statement from EPA acknowledging that: (a) DER's characterization of the County's request is appropriate; (b) DER followed the proper procedure when evaluating the County's request; and (c) DER's decision is appropriate. We believe this issue is extremely important because we do not want EPA to subsequently challenge the Department's activities in this case.

## Appendix - I

Clair Fancy  
August 10, 1987  
Page Three

7. Page 8, paragraph 3, Modelling Methodology. It should be noted that the prior modelling for the facility utilized a conservative approach. The stack parameters and emission rates were based on a maximum facility capacity of 1,760 tons per day and 100% facility availability. As currently constructed, however, the plant will normally handle approximately 1200 tons per day. In addition, it is generally assumed that resource recovery facilities will only be available approximately 85% of the time.

8. Page 10, paragraph 2. The predicted maximum ambient air quality impact for the proposed emissions of NO<sub>x</sub> is 1 ug/m<sup>3</sup>. The preliminary determination incorrectly states that the impact will be 11 ug/m<sup>3</sup>.

### Draft PSD Permit

1. We are concerned about DER's plan to issue a new permit (PSD-FL-121), rather than modify the existing PSD permit (PSD-FL-104). We believe it would be simpler for DER to issue a permit modification that only addresses the specific changes that will be affected by the Department's proposed action. Accordingly, we believe it is unnecessary for the Department to repeat all of the general conditions and specific conditions that have been incorporated into the draft PSD permit (PSD-FL-121). For ease of reference, we have prepared a draft permit and attached it as Exhibit A.

2. Page 1, paragraph 3. The draft permit should expressly state that the emissions limits and testing protocol for sulfuric acid mist have been deleted. As written, the draft permit appears to include the emission limits and testing methods for sulfuric acid mist.

3. Page 4, paragraph 13. All three of the appropriate spaces should be marked to signify that this permit constitutes a determination of BACT, PSD, and NSPS.

4. Page 6, paragraph (4). This requirement should be modified as follows:

Each of the emission limits in conditions (1) and through (3) is to be expressed as a three hour average . . . The concentration standards in conditions (1) ~~(2)~~ and (3) are included as the primary compliance limit . . . .

## Appendix - I

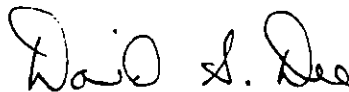
Clair Fancy  
August 10, 1987  
Page Four

5. Page 7. A new paragraph 1.a.(7) should be added. It should expressly state that the emission limitation for sulfuric acid mist has been deleted.

6. Page 8, paragraph 1.c.(2)g. Method 7E should be used to determine compliance for nitrogen oxides rather than Method 7.

Please feel free to call me if you have any questions.

Sincerely,

A handwritten signature in dark ink, appearing to read "David S. Dee". The signature is fluid and cursive, with the first name "David" and last name "Dee" clearly distinguishable.

David S. Dee

cc: Bill Thomas  
Daryl Smith  
Joe Mount  
Emmy Acton  
Richard Seelinger  
Bob Hauser  
Don Elias  
Bill Gillen

DSD/vc:Hills-RR

EXHIBIT A

DRAFT PSD PERMIT MODIFICATION  
FOR HILLSBOROUGH COUNTY RESOURCE RECOVERY FACILITY  
(PSD-FL-104)

Page 1, Paragraph 3

This modification to Permit No. PSD-FL-104 addresses the increased emissions of nitrogen oxides and sulfuric acid mist from the stack at the resource recovery facility. It also addresses the particulate emissions from the ash residue facility and dust suppression baghouse. Except as expressly provided in the specific conditions contained herein, all of the other provisions of Permit No. PSD-FL-104 remain in effect.


Specific Conditions

1. Specific Condition 1.a.(5) in Permit No. PSD-FL-104 establishes an emission limitation for nitrogen oxides. It is modified to read as follows:  
  
    (5) Nitrogen Oxides: 0.34 gr/dscf-12%, or 6.4 lb/ton, whichever is more restrictive.
2. Specific Conditions 1.a.(9) and 1.b.(2)i concerning sulfuric acid mist emission limitations and compliance test requirements are deleted.
3. Pursuant to Rule 17-2.700(3)d, FAC, a standard of 5% opacity is hereby set for the minor particulate source control equipment/baghouse (i.e., the ash residue building dust suppression system). The compliance test requirements for the ash handling facility will be waived in accordance with Rule 17-2.700(3)d, FAC.

DSD/vc:Hills-RR2

Copied: CHF/BT

Barry Andrews

8/12/87 



ATTACHMENT 5

Appendix - I

OGDEN MARTIN SYSTEMS  
OF HILLSBOROUGH INC.

40 LANE ROAD  
CN 2015  
FAIRFIELD, NEW JERSEY 07004-0015  
(201) 882-9000

ALL INFORMATION CONTAINED HEREIN IS UNCLASSIFIED

TELECOPIED & SENT FEDERAL EXPRESS

August 14, 1987

HC-0918L  
C-1005

DER

AUG 17 1987

BAQM

Mr. C. H. Fancy, P.E.  
Deputy Chief  
Bureau of Air Quality Management  
State of Florida Department of  
Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Re: Permit No. PSD-FL-121  
Expiration Date: March 31, 1988  
County: Hillsborough  
Project: Hillsborough County Resource  
Recovery Facility

Dear Mr. Fancy:

Ogden Martin Systems of Hillsborough, Inc. (OMSH) offers the following comments regarding the technical evaluation and preliminary determination in the draft permit to increase the allowable nitrogen oxides, sulfuric acid mist, and particulate emissions from the Resource Recovery Facility in Hillsborough County, Florida. Under Section I, of the Technical Evaluation and Preliminary Determination titled "Introduction," in paragraph two, OMSH would suggest changing the first sentence to read as follows:

On May 1, 1987, Hillsborough County through Ogden Martin Systems of Hillsborough, Inc., applied to DER to increase the allowable nitrogen oxides (NO<sub>x</sub>), and sulfuric acid mist emissions at the Hillsborough County ERF.

OMSH would similarly suggest changing the last sentence on the first page to read:

Subsequently, on June 16, 1987, Hillsborough County through Ogden Martin Systems of Hillsborough, Inc., submitted an application to operate/construct dust suppression equipment that was added to the final design of the ash handling building to ensure that there would be no visible emissions from this plant area.

## Appendix - I

Mr. C. H. Fancy, P.E.  
August 14, 1987  
Page Two

On the second page of the Introduction, OMSH would suggest deleting paragraph one in its entirety, since the wording is somewhat misleading. The paragraph refers to "the proposed project" whereas the project has been completed. The existing project consists of three boilers. The fourth boiler may or may not be added in the future; but, in any event, it has nothing to do with the original permit or any modification to date. If the paragraph is not deleted in its entirety, it is suggested that the second sentence of the paragraph be changed to read as follows:

A future plant expansion could increase the total solid waste processing capacity of the plant to 1600 TPD.

Under Section IV, captioned "BACT Determination," OMSH would propose changing the second sentence of the first paragraph to read as follows:

The ERF is designed to burn up to 1200 tons per day (TPD) of refuse at a heating value of 4500 BTU's per pound, which amount will increase or decrease, respectively, based upon lower or higher heating values, in each case, resulting in an electrical generating capacity of 29 megawatts.

The reason for this suggested change is that it more adequately reflects the burning capabilities of the facility, inasmuch as tonnage put through the unit decreases with higher heating value, and increases with lower heating value. The new recommended language more accurately reflects the capacity.

In the second paragraph under part IV, at the top of the page, it is recommended that the word "modified" be inserted in front of PSD.

Under Part V, captioned "Air Quality Analyses" in the subsection captioned "Analysis of Existing Air Quality," there is a major typographical error in the last paragraph in line two. The second sentence of the last paragraph should read"

This value ( $1 \text{ ug/m}^3$ ) . . . .

Our copy has an 11 instead of a 1. The value is correct in Table V-2, but needs to be corrected in the explanatory comments.

## Appendix - I

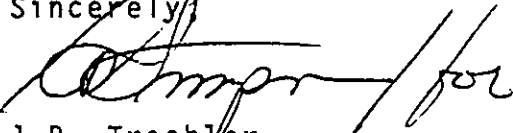
Mr. C. H. Fancy, P.E.  
August 14, 1987  
Page 3

OMSH recommends that paragraph three of the first page of the permit itself be reworded to segregate particulates from nitrogen oxides and sulfuric acid mist, in order to reflect that these pollutants are emitted from different parts of the plant. It is recommended that the first sentence be reworded to read as follows:

This permit modification pertains to the increases of nitrogen oxides and sulfuric acid mist from the stack and the emission of particulates from the ash residue dust suppression baghouse.

The second sentence of the third paragraph on the first page of the permit needs to be reworded to reflect acceptance of the increased emissions for sulfuric acid mist. As the second sentence presently reads, only specific conditions 1.a.(3), 1.b., and 1.c.(1), are being modified. None of these sections deals with emissions of sulfuric acid mist. Since the third sentence states that all conditions other than the specific conditions addressed in paragraph two remain unchanged, the combination of the second and third sentences does not reflect approval of the increase in sulfuric acid mist.

Sincerely,



J.R. Treshler  
Senior Project Manager

JRT:hn

cc: Mr. Bill Thomas

ATTACHMENT 6

*Attachment 4*

## UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION IV

345 COURTLAND STREET  
ATLANTA, GEORGIA 30365

SEP 14 1987

DER

SEP 18 1987

BAQM

4APT/APB-aes

Mr. C. H. Fancy, P.E., Deputy Chief  
Bureau of Air Quality Management  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32301-2400

Re: Hillsborough County PSD-FL-120

Dear Mr. Fancy:

This is to acknowledge receipt of your July 14, 1987, PSD preliminary determination modifying emissions limits for sulfuric acid mist and nitrogen oxides, and the addition of particulate emission limits for the newly proposed ash handling emission control equipment.

We concur with your determination and permit conditions as indicated. However, the determination should make clear that the significant net emissions increase in nitrogen oxides and sulfuric acid mist for which this source is undergoing PSD review are not the result of a physical change or change in operation at the facility. The "Rule Applicability" section of the determination should provide explanation that the increases are requested permit modifications due to an error in estimating emissions in the construction permit application and that permit modifications resulting in significant net emissions increases require the issuance of a PSD permit. Although this modification requires that a BACT determination be performed for nitrogen oxides and sulfuric acid mist, the determination may consist of the previous BACT determination contained in the original EPA issued PSD permit without further evaluation of present BACT determinations (e.g. acid gas controls). This allowance is made due to the fact that emissions increases are not a result of a physical change in the plant or its operation, and are not due to the failure of prescribed pollution control equipment required in the EPA issued PSD permit.

Please note that the FDER issued PSD permit (PSD-FL-120) will supersede the emission limits for nitrogen oxides and sulfuric acid mist, as contained in the original EPA issued PSD permit (PSD-FL-104). Once the FDER PSD permit is issued, the facility will no longer be required to meet the nitrogen oxides, and sulfuric acid emissions limits contained in the EPA PSD permit PSD-FL-104 for reasons cited in your final determination.

Appendix - I

We request that you submit copies of the final determination, which will address our concerns above, and permit when they are issued. If you have any questions, you may contact me or Wayne J. Aronson of my staff at (404) 347-2864.

Sincerely,

*Wayne J. Aronson / Acting for*

Bruce P. Miller, Chief  
Air Programs Branch  
Air, Pesticides, and Toxics  
Management Division

cc: Mr. Roger P. Stewart, Director  
Hillsborough County Environmental  
Protection Commission  
1900 9th Avenue  
Tampa, Florida 33605

Mr. William A. Gillen, Jr.  
P.O. Box 3324  
Tampa, Florida 33601

Copied: *Clair Jany*  
*Barry Andrews*  
*Proctor Paul* } 9/21/87 *(m)*

ATTACHMENT 7





United States Department of the Interior  
FISH AND WILDLIFE SERVICE

IN REPLY REFER TO:

MAILING ADDRESS:  
Post Office Box 25486  
Denver Federal Center  
Denver, Colorado 80225

STREET LOCATION:  
134 Union Blvd.  
Lakewood, Colorado 80228

SEP 22 1987

DER  
SEP 28 1987  
BAQM

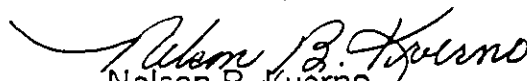
Mr. Bill Thomas  
Bureau of Air Quality Management  
Department of Environmental Regulation  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

Dear Mr. Thomas:

We appreciate the opportunity to review and comment on the Technical Evaluation and Preliminary Determination for the proposed modification of the Prevention of Significant Deterioration permit for the Hillsborough County Resource Recovery facility. The Hillsborough County facility, located near Tampa, Florida, is approximately 80 km south of Chassahowitzka National Wildlife Refuge, a class I air quality area administered by the U.S. Fish and Wildlife Service. Although we do not expect resulting emission increases from the proposed permit modifications to significantly impact the air quality or air quality related values of the refuge, we have several comments regarding the proposed modifications. These comments are discussed in the enclosed technical review document.

If you have any questions regarding our comments please contact Wayne King of our Air Quality staff at 303-969-2806.

Sincerely,

  
Nelson B. Kverno  
Acting Regional Director

Enclosure

copied:

B. Andrews

T. Rogers

P. Raval

F. Campbell, HCEPC

CHF/BT

9-24-87 RAN

## Appendix - I

### Technical Review of the Hillsborough County Resource Recovery Facility Permit Modifications

The Hillsborough County Resource Recovery Facility (RRF) was originally granted a Prevention of Significant Deterioration (PSD) permit in July 1986 and consists of a mass burn boiler which can burn up to 1200 tons per day (TPD) of solid municipal waste. The Hillsborough County facility is located near Tampa, Florida, approximately 80 km south of Chassahowitzka National Wildlife Refuge, a class I air quality area administered by the U.S. Fish and Wildlife Service. The steam from the boiler would be sent to a turbine generator with a capacity of 29 megawatts (gross). Generated electricity would be transmitted to the Tampa Electric Company for distribution. Hillsborough County is now requesting an increase in the permitted nitrogen oxide ( $\text{NO}_x$ ) and sulfuric acid mist ( $\text{H}_2\text{SO}_4$ ) emission limitations. The permitted, requested, and resulting emission increases are as follows:

<u>Pollutant</u>	<u>Permitted (TPY)*</u>	<u>Requested (TPY)</u>	<u>Increase (TPY)</u>
$\text{NO}_x$	657	1396	739
$\text{H}_2\text{SO}_4$	17	306	289

\*Tons Per Year

Based on the proposed emission increases, the requested modification of the Hillsborough County RRF permit constitutes a major modification of an existing major source and is subject to PSD review. Although we do not expect resulting emission increases from the proposed permit modifications to significantly impact the air quality or air quality related values of the refuge, we have several comments regarding the proposed modifications. These comments are discussed below.

The Hillsborough facility was initially issued a PSD permit which limited the emissions of  $\text{NO}_x$  and  $\text{H}_2\text{SO}_4$  to 0.16 grains per dry standard cubic foot (gr/dscf) and 0.0040 gr/dscf corrected to 12%  $\text{CO}_2$ , respectively. Hillsborough County's request to modify the  $\text{NO}_x$  and  $\text{H}_2\text{SO}_4$  emission limitations is based on test data that were unavailable at the time the permit was issued. Based on these data, Hillsborough County claims that they will be unable to meet the permitted  $\text{NO}_x$  and  $\text{H}_2\text{SO}_4$  levels. Consequently, Hillsborough County has proposed that the  $\text{NO}_x$  limitation be increased from 0.16 gr/dscf to 0.34 gr/dscf, and the  $\text{H}_2\text{SO}_4$  limitation be increased from 0.004 gr/dscf to 0.072 gr/dscf. The State of Florida has agreed to raise the  $\text{NO}_x$  limitation to 0.34 gr/dscf, or 6.4 lb  $\text{NO}_x$ /ton of refuse burned, whichever is more restrictive. For  $\text{H}_2\text{SO}_4$ , the State is deleting the emission limitation altogether based on the recommendation by EPA Region 4 that because no acceptable test method exists for measuring  $\text{H}_2\text{SO}_4$  emissions from municipal solid waste incinerators, an emission limitation should not be specified in the permit.

Review of the  $\text{NO}_x$  emission test data provided by Hillsborough County shows that similar resource recovery facilities have  $\text{NO}_x$  concentrations similar to the preliminary test results at the Hillsborough County facility. For example, the Wurzburg facility tested at 318 ppm and the Stockholm facility tested at 311 ppm, compared to 327 ppm for the Hillsborough County facility. However, as a basis for the revised  $\text{NO}_x$  limitation, it appears Hillsborough County selected the permitted rate applicable to the Tulsa facility (404 ppm).

In addition, three other proposed mass burn resource recovery facilities, Broward South, Broward North, and Lake County, were recently permitted by the State of Florida at 5.0 lb NO<sub>x</sub>/ton refuse burned. The 327 ppm concentration obtained from preliminary test results at the Hillsborough County facility converts to approximately 5.2 lb NO<sub>x</sub>/ton of refuse burned, whereas the proposed 404 ppm limitation corresponds to 6.4 lb/ton. The proposed limitation for the Hillsborough County facility appears to be inconsistent with the preliminary test data from the facility and three other recent permitting decisions by the State which limited facilities to 5.0 lb/ton.

In conclusion, based on the information provided in the Technical Evaluation and Preliminary Determination for the modification of the Hillsborough County RRF permit, we recommend that the revised NO<sub>x</sub> permit limit be based on (1) the preliminary test results of the Hillsborough facility of 5.2 lbs NO<sub>x</sub>/ton refuse burned (327 ppm), or (2) the permitted NO<sub>x</sub> emission limits set for the Broward South, Broward North and Lake County facilities (5.0 lbs NO<sub>x</sub>/ton refuse burned). Another option available to the State is to leave the permit as it is until actual emission data from the facility are available. Rather than basing the revised NO<sub>x</sub> limit on emissions data from other facilities or preliminary test results from the Hillsborough County facility, the State could wait until the Hillsborough facility achieves normal operation and conducts stack testing, and then modify the permit accordingly.

## Appendix - I

ATTACHMENT 8

# Appendix - I

COMMISSION  
RODNEY COLSON  
PAM IORIO  
RUBIN E. PADGETT  
JAN KAMINIS PLATT  
HAVEN POE  
JAMES D. SELVEY  
PICKENS C. TALLEY II



ROGER P. STEWART  
DIRECTOR

1900 - 9th AVE  
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

October 2, 1987

Mr. Clair Fancy, P.E., Deputy Chief  
Florida Department of Environmental Regulation  
Bureau of Air Quality Management  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

*Hillsborough County RRF*  
RE: Proposed PSD Permit No. PSD-FL-121

Dear Mr. Fancy:

Thank you for still allowing our Agency the opportunity to comment on the Bureau's proposed permit for our county's resource recovery facility at Faulkenburg Road.

Our comments on the proposed permit are as follows:

1. Proposed specific condition 1.b. states PM emissions from the ash handling facility shall not exceed 1.63 pounds per hour. Furthermore, condition 1.c.(1) mentioned Method 5 requirements on this source are waived by limiting the emissions to 5% opacity pursuant to Section 17-2.700(3)(d), F.A.C..

We recommend the above statements be changed to read:

1.b. In accordance with Subsection 17-2.650(2)(c)11., b., F.A.C., the maximum allowable emissions for the ash handling baghouse based on design flow of 9500 ACFM shall not exceed:

<u>Pollutant</u>	<u>lbs/hr</u>	<u>tons/yr</u>	<u>Emission Limitation</u>
Particulate Matter	2.44	10.7	0.03 gr/dscf

Visible Emissions

None (visible emissions less than or equal to 5% opacity)

1.c.(1) Change last sentence of first paragraph to:  
"EPA Method 5 testing requirements on the ash handling baghouse exhaust shall be waived pursuant to Section 17-2.700(1)(d).6., F.A.C."

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## Appendix - I

Add the following to Section 11. A. 3. as 'd'.

This baghouse shall be tested for visible emissions within 30 days of issuance of this permit and annually thereafter. The DER Method #9 test interval on this source shall be thirty (30) minutes. Two copies of the test data shall be submitted to the Air Section of the Environmental Protection Commission of Hillsborough County within 45 days of testing.

The above conditions are being recommended to clearly indicate the source is in a non-attainment area for particulates. As such, RACT requirements should be implemented. Furthermore, since no compliance test has yet been conducted on this baghouse, another sentence was added to require an annual Method 9 on the baghouse.

2. We recommend specific condition 9.b. be revised to require the permittee to submit quarterly reports within a certain time frame. Locally, we require all sources subject to 40 CFR 60.7 to submit excess emissions reports no later than 30 days from the end of each calendar quarter. We recommend this same time frame be used.

3. Specific condition 8 indicates annual compliance testing requirements are required for particulate matter and opacity. The operating permit for City of Tampa's RTE facility requires annual compliance testing requirements for particulate matter, opacity, SO<sub>2</sub>, NO<sub>x</sub>, and lead. Due to the varying nature of the garbage being burned, there is potential for SO<sub>2</sub>, NO<sub>x</sub>, and lead emissions to vary significantly from the results of the initial tests. Further, we feel it would be unfair to require different annual compliance tests between our two refuse to energy facilities. Both should have uniform testing requirements. We recommend condition 8 include annual testing requirements for SO<sub>2</sub>, NO<sub>x</sub>, and lead.

Your consideration of our input is appreciated. Please call me or Jerry Campbell if you have any questions.

Sincerely,



Victor San Agustin  
Senior Air Permitting Engineer  
Environmental Protection Commission  
of Hillsborough County

Roderic Raval

cc:

Bill Thomas, CAPS/CHFCAPS  
Barry Andrews, BAQM  
Bill Thomas, SWFDER

} 10/5/87



# Department of Environmental Protection

Lawton Chiles  
Governor

Virginia B. Wetherell  
Secretary

**PERMITTEE:**

Hillsborough County  
Resource Recovery Facility  
601 E. Kennedy  
Tampa, Florida 33602

FID No.	0570261
PSD No.	PSD-FL-121 (B)
SIC No.	4953
PPS No.	PA 83-19
Expires:	March 30, 2003

*Authorized Representative:*

Daniel A. Kleman  
County Administrator

**PROJECT AND LOCATION:**

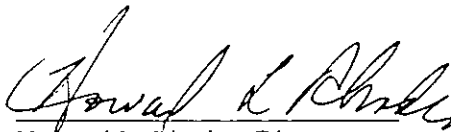
Permit to replace air pollution control system on a nominal 1200 (1380 peak) ton per day waste combustion and energy recovery facility in order to comply with the requirements of 40CFR60, Subpart Cb - Emission Guideline and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995. Electrostatic precipitators will be replaced with selective non-catalytic reduction systems, spray dryer absorbers, activated carbon injection units, and fabric filters. Permit defines wastes which can be combusted and expands peak waste input to 115 percent of nominal capacity. The facility is located at 350 Falkenburg Road, Tampa, Hillsborough County. UTM coordinates are Zone 17; 368.20 km E ; 3092.70 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. 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

  
Howard L. Rhodes, Director  
Division of Air Resources  
Management

**AIR CONSTRUCTION PERMIT PSD-FL-121(B) AND PA 83-19**

**SECTION I. FACILITY INFORMATION**

---

**SUBSECTION A. FACILITY DESCRIPTION**

This existing facility consists of three mass-burn combustion units, with a nameplate (nominal) capacity to combust 400 tons per day (tpd) when burning solid waste with a heat content of 4,500 British thermal units (BTU) per pound (lb). Therefore, the facility has a nameplate (nominal) waste processing rate of 1,200 tpd (4,500 Btu/lb). The Facility generates electricity, and has an electrical generator with a nameplating rating of 29 megawatts for the entire Facility. Each upgraded air pollution system will consist of a spray dryer absorber (SDA), fabric filter baghouse (FF), activated carbon injection (ACI) unit, and a selective non-catalytic reduction (SNCR) system.

**SUBSECTION B. REGULATORY CLASSIFICATION**

This facility is listed in Table 62-212.400 of Chapter 62-212, F.A.C., "Major Facilities Categories". Stack and fugitives emissions of over 100 tons per year of particulate matter, carbon monoxide, volatile organic compounds, sulfur dioxide, and nitrogen oxides, characterize the installation as a major facility. The installation of the new air pollution control system will not subject this facility to PSD review under the requirement of Rule 62-212.400, F.A.C., since there is not an increase in actual emissions. As a Resource Recovery Facility (waste-to-energy facility), the affected emissions units are subject to applicable requirements of Rule 62-296.416, F.A.C. Waste to Energy and Rule 62-204.800, F.A.C., which incorporates 40 CFR 60 Subpart Db, Subpart Cb, Subpart E, and Subpart Eb.

**SUBSECTION C. PERMIT SCHEDULE:**

- 02/06/98 Notice of Intent published in The Tampa Tribune
- 01/28/98 Issued Notice of Intent to Issue Permit
- 11/17/97 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 September 16, 1997.

Department's letters dated October 14, 1997

Company letters dated November 11, 1997, January 9, 13, 14, and February 20, 1998



AIR CONSTRUCTION PERMIT PSD-FL-121(B) AND PA 83-19

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

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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) and the Power Plant Siting office, Florida Department of Environmental Protection (FDEP) at 2600 Blainstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-1344. All documents related to reports, tests, and notifications should be submitted to the DEP Southwest District office (DEPSW), 3804 Coconut Palm Drive, Tampa, Florida 33619 and phone number 813/744-6100 and the Environmental Protection Commission of Hillsborough County (HCEPC), 1900 Ninth Avenue, Tampa, Florida 33605 and phone number 813/272-5960.
- A.2 General Conditions: The owner and operator is 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 Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40CFR 52.21(r)(2)].
- A.6 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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC). [Chapter 62-213, F.A.C.]
- A.7 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.

AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

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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 facility 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 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. *Routine maintenance of equipment will not constitute a modification of this permit.* [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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) as soon as possible, but at least within (1) 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 Cb 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 DEP Southwest District office. Department staff

AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19

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

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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.]

- 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 process weight input or 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 preclude the permittee from securing any other types of required permits, licenses, or certifications.

**SUBSECTION F. ELECTRIC UTILITY STEAM GENERATING UNIT ACTUAL EMISSIONS**

- F.1 Requirement: The permittee shall provide the Department within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in a "representative actual annual emissions" increase in accordance with Rule 62-210.200 (12)(d), F.A.C., and Rule 62-212.400, F.A.C. [40 CFR 52.21(b)(33), Rule 62-4.070 (3), Rule 62-212.400, and Rule 62-210.200, F.A.C.]

**AIR CONSTRUCTION PERMIT PSD-FL-121(B) AND PA 83-19****SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS****SUBSECTION A. 40 CFR 60, NSPS, GENERAL PROVISIONS**

The following emission limitations shall apply to each affected emissions unit after the proposed improvements to comply with 40 CFR 60 Subpart Cb are made and compliance testing is completed. This section addresses the following emissions units:

<b>EMISSIONS UNIT NO.</b>	<b>EMISSIONS UNITS DESCRIPTION</b>
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.3
xxx	Ash Building and Handling System

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 E and Subpart Cb, New Source Performance Standards for Incinerators and Emissions Guidelines for Existing Municipal Waste Combustors along with applicable requirements of Subpart Db, New Source Performance Standards for Steam Generating Units, 40 CFR 61.30, Subpart C, NESHAP for Beryllium and Rule 62-296.416, F.A.C., Waste-to-Energy Facilities. In addition these emissions units 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.; and PSD-FL-104, 121 and 121(A)].**

{Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb where these requirements are referenced by Subpart Cb}

## AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19

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

## SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emissions units after improvements to comply with 40 CFR Subpart Cb are completed.

EMISSIONS UNIT No.	EMISSIONS UNITS DESCRIPTION
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.3

{Permitting Note: Each of the three municipal waste combustor (MWCs) shall have a nominal design rate capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. The "operating window" of 115 percent (%) over the nominal design rate of 150MMBtu heat input corresponds to 172.5 MMBtu/hr heat input and 102,000 lb steam/ hour per each boiler. By letter dated March 17,1998, D.B Riley, Inc. (boilers' manufacturer) indicated that it performed an evaluation of each boiler's ability to operate at the proposed increase steam flow of 102,000 lb steam /hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lb steam/hr. Short-term capacity is limited by limiting steam production (102,000 lb/hr), which effectively limits heat input. The net steam energy of 1378.86 Btu/lb of steam shall not be exceeded}.

## OPERATIONAL REQUIREMENTS

B.1 The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.

B.2 Process Operating Rates

(a) The maximum individual MWC throughput shall not exceed 460 tons MSW per day (1380 tons per day entire facility), 172.5 MMBtu per hour and 102,000 pounds steam per hour (on a 4-hour block arithmetic average). The incinerators/boilers shall not be loaded in excess of their maximum operating capacity, equivalent to 1380 tons MSW per day total, but no more than 1200 tons MSW per day on an annual (52 week rolling average) average basis for the entire facility. (Compliance per Specific Conditions B.13 and B.14) [Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b, and 60.58b(j)] [PSD-FL-121(A)/PA 83-19 and Rule 62-4.030(3), F.A.C.]

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

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). Each MWC unit shall not operate at a load

AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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level greater than 110 percent of the unit's "maximum demonstrated unit load." The maximum demonstrated unit load is the highest 4-hour arithmetic averaged MWC unit load achieved during 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). [Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(8)]

B.4 Emission Control Equipment

*Particulate Matter*

The combustor's particulate control baghouse shall be designed, constructed and operated to not exceed a maximum emission rate of 27 mg/dscm corrected to 7 percent O<sub>2</sub>. These baghouses/collectors shall be equipped with pressure drop monitoring equipment.

*Spray Dry Scrubber*

The facility shall be equipped with dry scrubbers which are designed, constructed and operated to remove SO<sub>2</sub> at an efficiency of 75 percent, or to not exceed a maximum emission rate of 29 ppm<sub>dv</sub> corrected to 7 percent O<sub>2</sub>, 24-hour block geometric mean, whichever is less stringent.

*Carbon Injection*

The carbon injection rate must be estimated and maintained in compliance with the requirements set forth in 40 CFR 60.58b(m).

*Selective Non Catalytic Reduction System*

The facility shall be equipped with SNCRs which are designed, constructed and operated to not exceed a maximum NO<sub>x</sub> emission rate of 205 ppm<sub>dv</sub> corrected to 7 percent O<sub>2</sub>, 24-hour block arithmetic mean (midnight to midnight).

Within 30 days after it becomes available, but before commencement of construction, the Permittee shall submit to the Department's Southwest District office copies of technical data pertaining to the selected emission control systems. This data should include, but not be limited to guaranteed efficiency and emission rates, and major design parameters.

B.5 Stack Height: The height of the boiler exhaust stack shall not be less than 220 feet above grade.

AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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B.6 Fuels

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

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

- (a) those materials that are prohibited by state or federal law;
- (b) those materials that are prohibited by this permit;
- (c) lead acid batteries;
- (d) hazardous waste;
- (e) nuclear waste;
- (f) radioactive waste;
- (g) sewage sludge;
- (h) explosives.

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 facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

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

B.6.3 The facility owner/operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to 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 homogenous composition of waste material, as determined by visual inspection.

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

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

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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

Natural gas 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 facility:

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

B.6.6 Subject to the conditions and limitations contained in this permit waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition No. B.25 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 facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined by using a rolling 30 day average in accordance with specific condition No. B.25 below.

- (a) Construction and demolition debris.
- (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



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- 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) The emission limitations for this facility shall apply at all times, except during periods of warmup, startup, shutdown, or malfunctions, provided that the duration of startup, shutdown, or malfunction periods do not exceed 3 hours per occurrence. The duration of warmup periods is not limited. The startup period commences when the affected facility begins the continuous burning of MSW and does not include any warmup period when the affected facility is combusting only natural gas and MSW is not being introduced to the combustor. The use of MSW solely to provide thermal protection to the grate during the warmup periods when MSW 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.
- (b) A malfunction means any sudden and 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. [Rule 62-210.700, and 62-204.800(8), F.A.C., and 40 CFR 60.58b(a)(1)]

## AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19

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

## EMISSION LIMITATIONS

B.8 The following maximum emissions limits shall not be exceeded:

POLLUTANT	EMISSION STANDARDS	LB/MMBtu	LB/HR	TON/YR
<b>PM<sup>(1)</sup></b> Particulate Matter	27 mg/dscm or 0.012 gr/dscf corrected to 7% O <sub>2</sub>	0.024	4.1	17.96
<b>VE</b> Visible Emissions	10% (6 min. block avg.)			
<b>Cd</b> Cadmium	0.040 mg/dscm corrected to 7% O <sub>2</sub>	3.47E-05	6.00E-03	0.026
<b>F</b> Fluorides	6.74 mg/dscm corrected to 7 % O <sub>2</sub>	0.0059	1.00	4.43
<b>Be<sup>(3)</sup></b> Beryllium	1.48 ug/dscm corrected to 7 % O <sub>2</sub>	1.27E-06	2.18E-04	9.6E-04
<b>Pb</b> Lead	0.44 mg/dscm corrected to 7% O <sub>2</sub>	3.81E-04	0.065	0.288
<b>Hg<sup>(5)</sup></b> Mercury	70 ug/dscm or 85% reduction by weight corrected to 7% O <sub>2</sub> (whichever is less stringent)	1.17E-04 or 85% reduction @ 7% O <sub>2</sub>	0.020 or 85% reduction @ 7% O <sub>2</sub>	0.087
<b>SAM</b> Sulfuric Acid Mist	To be demonstrated initially. Not to exceed 0.072 gr/dscf corrected to 12 % CO <sub>2</sub>			
<b>SO<sub>2</sub><sup>(2)</sup></b> Sulfur Dioxide	29 ppmdv or 75% reduction by weight or volume corrected to 7% O <sub>2</sub> (whichever is less stringent)	0.190 or 75% reduction @ 7% O <sub>2</sub>	32.86 or 75% reduction @ 7 % O <sub>2</sub>	143.9
<b>HCl<sup>(2)</sup></b> Hydrochloric Acid	29 ppmdv or 95% reduction corrected to 7% O <sub>2</sub> (whichever is less stringent)	0.099 or 95% reduction @ 7% O <sub>2</sub>	17.00 or 95% reduction @ 7% O <sub>2</sub>	74.43
<b>Dioxins/Furans</b>	30 ng/dscm corrected to 7% O <sub>2</sub>	2.60 E-08	4.5E-06	1.96E-05
<b>CO</b> Carbon Monoxide	100 ppmvd corrected to 7% O <sub>2</sub>	0.101	17.4	76.26
<b>NO<sub>x</sub><sup>(2)</sup></b> Nitrogen Oxides	205 ppmvd corrected to 7% O <sub>2</sub>	0.34	58.63	256
<b>VOC<sup>(4)</sup></b> Volatile Organic Compounds	To be demonstrated initially. Not to exceed 0.01 gr/dscf corrected to 12% CO <sub>2</sub>			

These maximum allowable emission rates are applicable to each MWC combustor unit.  
[Rules 62-4.070, and 62-296.416, F.A.C., 40 CFR 60.33b and 40 CFR 60.34b]

## Notes:

- (1) This limit for PM is more restrictive than the emission limit for PM in 40 CFR 60.43b
- (2) The NO<sub>x</sub> standard of 40 CFR 60.44b do not apply to these emissions units because this permit subjects this facility to a federally enforceable requirement that limits the facility to an annual capacity factor of 10 percent or less for natural gas
- (3) Beryllium: NESHAP, 40 CFR 61.32 (a)(Subpart C). This limit is adjusted downward to produce no net increase in the annual maximum potential emission rate. Refer to Table 1.1 of the application submitted on September 16, 1997.
- (4) VOC emission limit: 0.01 gr/dscf corrected to 12 % CO<sub>2</sub> or 0.2 lb/ton, whichever is more restrictive (PSD-FL-104).
- (5) Emission limits in terms of lbs/ MMBtu or lb/hr for those pollutants which have an emission standard expressed, in part by a percent removal efficiency, shall also be dictated by the percent removal provision.

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SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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Basis: Emissions calculations (lb/hr and ton/yr) are based on the maximum heat input rate of 172.5 MMBtu/hr (102,000 lb steam/hr) per unit and 8760 hours of operation.

Averaging Times

SO<sub>2</sub>: 24-hour daily block geometric mean (midnight to midnight)

NO<sub>x</sub>: 24-hour daily block arithmetic mean (midnight to midnight)

CO: 4-hour block arithmetic mean beginning at midnight

Opacity: 6 minutes block arithmetic mean

Abbreviations

ug/dscm: Micrograms per dry standard cubic meter

mg/dscm: Milligrams per dry standard cubic meter

ppmdv: Part per million dry volume

ng/dscm: Nanograms per dry standard cubic meter

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

F: Fluorides as hydrogen fluoride

Temperature: 17° C above maximum demonstrated PM control device inlet

Auxiliary Burners: Nitrogen oxides emission from the auxiliary burners are expected to approximately be 3.45 lb/hr and 15.1 ton/yr per unit. These emissions are part of, and not in addition to, combustor emissions. Allowable emissions for MSW combustors include auxiliary burners. This facility is limited to a 10 percent (0.10) or less total annual gross heat input for natural gas consumption. Auxiliary burners for each MWC unit shall be fired only by natural gas, and consumption of natural gas shall not exceed 104,937,500 cubic feet per MWC unit in any calendar year (i.e., annual capacity factor for natural gas of 10% or less as determined by 40 CFR 60.44b(d).

[40 CFR 60.44b, Rule 62-210.200, 62-204.800 (8) and 62-4.070(3), F.A.C.]

COMPLIANCE AND PERFORMANCE TESTING

Testing shall be conducted in accordance with the requirements of 40 CFR 60.58b Compliance and Performance Testing and 40 CFR 60.8. Performance Tests.

B.9 Stack Testing

Compliance tests [initial (I) and annual (A) as indicated in Specific Condition No. B.8] for PM, HCl, Dioxin/furans, F, Be, Pb, Cd, Hg, H<sub>2</sub>SO<sub>4</sub> mist (SAM), VOC and VE shall be performed 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.

A test protocol shall be submitted for approval to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) at least 45 days prior to initial testing. [Rule 62-204.800(8), F.A.C. and Chapter 62-297, F.A.C.]

**AIR CONSTRUCTION PERMIT PSD-FL-121(B) and PA 83-19****SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

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- Method 5<sup>(1)</sup>** Determination of Particulate Matter Emissions (front half catch only) from Stationary Sources (I) and (A).
- Method 8** Determination of Sulfuric Acid Mist from Stationary Sources (I).
- Method 9** Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).
- Method 13A or 13 B** Determination of Total Fluoride Emissions from Stationary Sources (I) and (A).
- Method 18, 25 or 25a** Determination of Volatile Organic Concentrations (I).
- Method 23<sup>(2)</sup>** Determination of Dioxin/furan concentration from Stationary Sources (I) and (A).
- Method 26<sup>(3)</sup> or 26A** Determination of HCl emissions (I) and (A).
- Method 29<sup>(3)</sup>** Determination of Metals Emissions from Stationary Sources (I) and (A).

- (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.
- (2) Dioxin/Furan emission limit expressed as the total mass of tetra- through octa chlorinated dibenzo-p-dioxins and dibenzofurans. The facility may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) and with prior notice to the Department, if the facility's dioxin/furan emissions do not exceed 15 ug/dscm corrected to 7% O<sub>2</sub> or less for all MWC units.
- (3) HCl and mercury stack tests upstream and downstream of the control device (s) shall be conducted to calculate percent control.

Initial compliance tests for each combustion unit shall be conducted within 60 days after achieving maximum operating capacity, but not later than 180 days after startup. Annual tests shall be conducted within one year after the initial tests, unless otherwise allowed by the Department.

- B.10. Test Procedures: Compliance tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration etc.) of the Florida Administrative Code Chapter 62-297. The Method 9 test shall be conducted during one run of the particulate matter test. The particulate matter test shall be conducted under conditions representative of normal

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operations and shall be scheduled to coincide with as much of the normal cleaning (soot blowing) cycle as practicable. Initial performance tests for SO<sub>2</sub> and NO<sub>x</sub> shall be conducted using CEMS in accordance with the methods and requirements of 40 CFR 60.58b(e)(4) and (h)(3), respectively. [Rule 62-204.800(8), F.A.C., and Rule 62-297.310, F.A.C.; and 40 CFR 60.38b (40 CFR 60.58b)]

- B.11 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.]

- B.12 Monitoring Compliance:

Continuous Compliance with Emission Limits: Continuous compliance with the emission limits for opacity, carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>) listed in B.8 and the operational parameters (steam production, etc.) listed in Specific Condition No. B.3 shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with 40 CFR 60.58b and 60.59b(f). [Rule 62-204.800(8), F.A.C. and 40 CFR 60.38 (40 CFR 60.58b)]

- B.13 Compliance With Load Level Requirements: The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6)). Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes as specified at 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)]

- B.14 Compliance with the Continuous Charging Rate: The daily solid waste charging rate and hours of operation shall be determined and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each MWC unit using the Facility's truck scale weight data, refuse pit inventory, and MWC operating data for the preceding calendar month. Monthly truck scale weight records on the weight of solid waste received and processed at the Facility and refuse pit inventory 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 per MWC unit for each day during the preceding calendar month. [Rule 62-204.800(8), F.A.C., and 40 CFR 60.53(a)]

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- B.15 Compliance with the PM Control Device Temperature: Each MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. Each 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 block-averaged 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 (or feedwater) flow for each unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Cb. 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.16 Compliance with the Carbon Injection Rate: The carbon injection rate for each MWC unit (kilograms per hour [kg/hr] or pounds per hour [lb/hr]) shall be estimated during each mercury and dioxin/furan compliance stack test 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. During operation of each MWC unit, the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate must equal or exceed the level(s) documented during the most recent mercury and dioxin/furan stack tests in which compliance with the emission limits were achieved. The owner or operator shall estimate the total carbon usage for the facility for each calendar quarter according to the weight of carbon delivered to the facility and the average carbon mass feed rate (kg/hr or lb/hr) for each MWC unit based on the primary indicator(s) for carbon mass feed rate, summing the results for all MWC units and accounting for the total number of operating hours during the calendar quarter. [Rule 62-204.800(8), F.A.C. and 40 CFR 60.58b(m)]
- B.17 Auxiliary Burners Compliance:
- (a) Auxiliary burners for each unit shall be fired only by natural gas. The annual capacity factor for natural gas shall be 10 percent or less. Monthly records shall be maintained of the amount of natural gas used by the auxiliary burners in each unit and the equivalent gross heat input. 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 in each unit was 10 percent or less. The

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annual capacity factor for natural gas is the ratio between the heat input to the unit from natural gas and the potential heat input to the unit had it been operated for 8760 hours during a calendar year at the maximum steady state design heat input capacity. [Rule 62-4.070(3), F.A.C., and 40 CFR 60.44b(d)]

- (b) During boiler start up, the auxiliary gas burners shall be operating at their maximum capacity prior to the introduction of MSW to the boilers, and shall remain in operation until the lime spray dryer and particulate control device are fully operational. [Rule 62-4.070(3), F.A.C.]

**MONITORING OF OPERATIONS**

- B.18 Continuous Emission Monitoring System(CEMS): CEMS with recorders shall be installed, calibrated, maintained and operated for each unit subject to review by FDEP for the following pollutants and operational parameters:

Carbon Monoxide

Nitrogen Oxides

Opacity

Sulfur Dioxide

(SO<sub>2</sub> monitors shall be located both upstream of the scrubber and downstream of the baghouse, in order to calculate percent removal efficiency).

Oxygen

Total steam production (lbs/hr, pressure, and temperature) or feedwater flow rate (lbs/hr)

Device to measure temperature of flue gases at the fabric filter inlet

Carbon injection system operating parameters

Power generation (MW)

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

- B.19 The monitoring devices shall meet the applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.45, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5). Quality assurance procedures must conform to all applicable sections of 40 CFR, Appendix F. Data on CEM/COM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location after the economizer or in the air pollution control equipment outlet duct shall be provided to the Department's Southwest District Office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC)

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for review at least 90 days prior to installation. Initial performance evaluations must be completed within 180 days after initial startup of each retrofitted unit. [Rule 62-204.800(8) and 62-4.070(3), F.A.C.), 40 CFR60.38 and 40 CFR 60.58b]

**RECORD KEEPING AND REPORTING REQUIREMENTS**

**B.20 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 data on which such measurements, records, or data are recorded. These data shall be made available to the Department of Environmental Protection, Southwest District office and the Hillsborough County Environmental Protection Commission upon request. [Rule 62-4.070(3), F.A.C.; Rule 62-4.160(14)(b), F.A.C. and 40 CFR 60.59b]

The Permittee shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to:

- (a) Data collected from monitoring instruments, including CEM/COM systems, steam or feedwater flow measurements and PM control device temperatures;
- (b) Continuous steam flow or feedwater flow records on 4-hour block average basis;
- (c) Records on 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 burned for each unit each month; the equivalent heat input from natural gas for each unit each month, calculated using the heat value for natural gas provided by the natural gas supplier; and the annual records of the natural gas capacity factor for each unit;
- (e) Results of all source tests or performance tests; and records of the maximum demonstrated unit load specified by condition B.3 of this permit.
- (f) Amounts of activated carbon used for mercury control;
- (g) Calibration logs for all instruments subject to this permit;



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- (h) Maintenance/repair logs for any work performed which is subject to this permit;
- (i) Records showing the names of facility personnel who have been provisionally or fully certified, and who have completed the MWC operator training course, and who have completed reviews of the operating manual, including the dates and documentation of certification/review.
- (j) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by specific condition B.25 of this permit.

B.21. Excess Emission Reports

B.21.1 Quarterly Reports

The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility 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 measure 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)]. In case of excess emissions resulting from

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malfunctions, the owner or operator shall notify FDEP and the HCEPC in accordance with Section 62-4.130, F.A.C.

B.21.2 Other Excess Emission Reports

In case of excess emissions resulting from malfunctions\*, the owner or operator shall notify Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) in accordance with Section 62-4.130, F.A.C. The DEPSWD and the HCEPC shall be notified within one working day 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 DEPSWD or the HCEPC 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 DEPSWD or HCEPC.

\* Malfunction is defined at Rule 62-210.200(179) 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.22 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 location shall be provided to the Department's Southwest District office and the Hillsborough County Environmental Protection Commission for review at least 90 days prior to installation.

B.23 Operating Reports: Before March 1st of each year, the owner or operator shall submit to the Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) 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 FDEP and the HCEPC offices 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.24 Sampling Reports: Drawings of testing facilities including sampling port locations as required by Section 62-297.310(8)(c) shall be submitted to the Southwest District Office at least 60 days prior to construction of the sampling ports.

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- B.25 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:

Each segregated load of non-MSW materials, that is subject to the percentage weight limitation of specific conditions 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 previous 29 days. The resultant 30 day total weight of tires shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous 29 days. The resultant 30 day total weight of segregated non-MSW materials shall be divided by the total weight of all waste materials received in the same 30 day period, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

OPERATOR TRAINING AND CERTIFICATION

B.26 Requirements

- (a) One of the following persons must be on duty at the facility at any time during which one or more of the MWC units is operating: a fully certified chief facility operator or shift supervisor; or a provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam. If this person must leave the facility during his or her operating shift, a provisionally certified control room operator who is on site may fulfill this requirement. [40 CFR 60.39b(c)(4) (ii) and 40 CFR 60.54b(c)].
- (b) Each chief facility operator and shift supervisor must obtain and maintain a current provisional operator certification and be scheduled for a full certification exam, or receive full certification, with either the ASME or an equivalent state-approved

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certification program before the date that person assumes responsibility for operation of the facility. [40 CFR 60.39b(c)(4)(ii) and 40 CFR 60.54b(a) and (b)]

- (c) Each chief facility operator, shift supervisor, and control room operator must complete the EPA or state approved MWC operator training course before the date that person assumes responsibility for operation of the facility. The operator training course requirements of 40 CFR 60.54b(d) do not apply to chief facility operators, shift supervisors and control room operators who have obtained full ASME certification on or before the date of State plan approval of November 13, 1997 [40 CFR 60.39b(4)(iii)(c)(A)]. The owner or operator may request that the Department waive the 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 of November 13, 1997 [40 CFR 60.39b(4)(iii)(c)(B)].  
[40 CFR 60.39b(c)(4) and 40 CFR 60.54b(d)]
- (d) A site-specific operating manual must be developed and updated on an annual basis [40 CFR 60.54b(e)]. A training program must be established to review the operating manual with each person who has responsibilities affecting the operation of the MWC including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person must undergo initial training before the day that person assumes responsibilities affecting operation of the facility and annually thereafter [40 CFR 60.54(f)]. The operating manual must be kept in a readily accessible location for all persons required to undergo training.  
[40 CFR 60.54b(e) and 40 CFR 60.54b(f)]

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**SUBSECTION C. SPECIFIC CONDITIONS:**

The following Specific Conditions apply to the following emissions units:

<b>EMISSIONS UNIT NO.</b>	<b>EMISSIONS UNITS DESCRIPTION</b>
xxx	Ash Building and Handling System
xxx	Lime Silo
xxx	Carbon Silo

**EMISSION LIMITATIONS****C.1 Lime and Carbon Silos and Ash Conveyor and Handling System:**

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

- (a) In no case shall PM emissions from the lime storage silos exhaust exceed 0.015 gr/dscf (front-half catch) during filling operations of the lime storage silo. Visible emissions shall not exceed 5% opacity in accordance with specific condition C.3.
- (b) In no case shall particulate matter emissions from the activated carbon storage silo exhaust exceed 0.015 gr/dscf (front-half catch) during filling operations of the activated carbon storage silo. 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. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor of the refuse bunker while trucks are entering and leaving) will be under negative air pressure. 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 to minimize visible dust. The ash/residue in the Ash Handling Building shall remain sufficiently moist to prevent dust during storage and handling operations.

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- (e) PM emissions from the ash handling facility baghouse shall not exceed 1.63 pounds per hour. Visible emissions shall not exceed 5 percent opacity in accordance with specific condition C.3.

[Rule 62-04.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b]

{Note: The fugitive particulate matter control requirements for the ash handling activities specified in 40 CFR 60.55b and in this permit represent RACT for this facility pursuant to the Department's authority of Rule 62-296.711(2)(c), F.A.C.}

COMPLIANCE AND PERFORMANCE TESTING

C.2 Fugitives Emissions Compliance:

The compliance method for fugitive emissions from ash handling facilities shall be:

**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 for the ash handling and ash conveyor systems shall be conducted within 180 days of completion of construction and initial operation and annually thereafter. All notification requirements of 40 CFR Part 60 shall be satisfied.

Permanent stack facilities are not required for the ash handling building vent.

[Rule 62-04.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b]

C.3 Carbon and Lime Storage Silos and Ash Building Baghouse PM Compliance

Requirements: Pursuant to Section 62-297.620(4), F.A.C., the PM compliance test requirements are waived for the lime and carbon storage silos and ash building baghouse and an alternate standard of 5 percent opacity shall apply. Visible emission tests shall be performed for each silo during filling operations and the ash handling baghouse using Method 9. A visible emission reading greater than 5 percent opacity does not create a presumption that the emission limit (in gr/dscf) is being violated, but may require the permittee to perform a particulate stack test using EPA Method 5. Compliance testing for the lime and carbon silos and ash handling building baghouse shall be conducted within 180 days of completion of construction and initial operation and annually thereafter. All notification requirement of 40 CFR 60 shall be satisfied.

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

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## SUBSECTION D. COMMON CONDITIONS:

The following Specific Conditions apply to the following emissions units:

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.3
xxx	Ash Building and Handling System
xxx	Lime Silo
xxx	Carbon Silo

## 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 facility shall remain closed except during normal working shifts when MSW is being received at the storage pit area. To minimize odors at the facility, 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/Malfunctions
- (a) In order to minimize excess emissions during startup/shutdown/malfunction these emissions units shall adhere to best operational practices to minimize emissions.
- The duration of excess emissions from the lime silo, carbon silo or ash building baghouse 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 the construction authorized in this permit, the permittee shall submit to the DEP Southwest District office an operational procedures

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manual that identifies and describes best operational practices that will be used during startup, shutdown, and malfunctions of this facility.

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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) in writing at least *30 days* (initial) and *15 days* (annual) 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 Department. 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 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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC).  
[Rule 62-297.310(7)(b), F.A.C.]



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- D.7 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit 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. Higher loads are also allowed for testing purposes as specified at 40 CFR 60.53b(b). See also specific conditions B.2, B.3, and B.13 of this permit. [Rule 62-297.310(2) and (3), F.A.C.]

RECORD KEEPING AND REPORTING REQUIREMENTS

- D.8 Emission Compliance Stack Test Reports:
- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C., and 40 CFR 60.59(b)(f)]
  - (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.

SCHEDULE OF COMPLIANCE

- D.9. The compliance schedule for each unit is provided below.

*Increment 1*: Submittal of a final control plan for the designated facility to the appropriate air pollution control agency. December 31, 1996 - applicable to units 1, 2 and 3.

*Increment 2*: Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification. December 31, 1997- applicable to units 1, 2 and 3.

*Increment 3*: Initiation of on site construction or installation of emission control equipment or process change. February 28, 1999 - applicable to the first unit. July 30, 1999 - applicable to the second unit. April 30, 2000 - applicable to the third unit.

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The order of the construction schedule (i.e., which unit is first, second and third) will be identified in the final control plan.

*Increment 4:* Completion of on-site construction or installation of emission control equipment or process change. September 30, 2000 - applicable to units 1, 2 and 3.

*Increment 5:* Final compliance. December 10, 2000 - applicable to units 1, 2 and 3.

Closure Agreement: Not later than November 13, 2000, the County will cease operation of any unit that has not completed on-site construction or installation of emission control equipment and is not involved in performance testing. After closure, said units may commence startup, shakedown and performance/compliance testing per the closure agreement. Performance/compliance tests must be completed within 180 days of startup.

[Rule 62-204.800(8)9.b., F.A.C.]

**APPENDIX GC**  
**GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]**

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
  - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

## APPENDIX GC GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ( )
  - (b) Determination of Prevention of Significant Deterioration ( );
  - (c) Compliance with New Source Performance Standards (X);
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - (c) Records of monitoring information shall include:
    - 1. The date, exact place, and time of sampling or measurements;
    - 2. The person responsible for performing the sampling or measurements;
    - 3. The dates analyses were performed;
    - 4. The person responsible for performing the analyses;
    - 5. The analytical techniques or methods used; and
    - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Memorandum

Florida Department of  
Environmental Protection

BAR

TO: Howard Rhodes

THRU: *AL* Jim Pennington *JP*  
Al Linero

FROM: Teresa Heron *T.H.*

DATE: June 26, 1998

SUBJECT: Hillsborough County Resource Recovery Facility  
Air Pollution Control Equipment Retrofit 7

Attached is the final modification to the PSD permit for this facility. This permit modification addresses the installation of the new air pollution control system to comply with the Emission Guideline for existing municipal solid waste combustors, 40 CFR 60, Subpart Cb.

The upgraded pollution control systems will consist of: spray dryer absorbers and fabric filters to control acid gases, particulate matter, and heavy metals; an activated carbon injection system for mercury control; selective non-catalytic reduction to control nitrogen oxides; and combustion controls for volatile organic compounds, carbon monoxide, and dioxins and furans.

The slate of authorized fuels is being expanded and defined from "refuse such as garbage and trash" to: non-hazardous solid waste including municipal solid waste (MSW) as defined at 40 CFR 60.51b; records and documents; non-hazardous contraband, clean wood and land clearing debris; oil spill debris; waste tires; expired or off-spec packaged or unpackaged consumable goods (e.g. pharmaceuticals); consumer products; packaging materials; certain floor covering; used oil and filters; and certain other wastes similar to MSW. We included limits (acceptable to the County) on these segregated wastes to insure the overall composition continues to comport to the typical characteristics of MSW.

We agreed to re-define their operating window to 115 percent of nominal throughput upon receiving reasonable assurance that the boilers are designed to operate within this range. Because of the short-term production increase, we compared past actual with future potential emissions and discovered increases. Because the facility has a single steam turbine and electrical generator producing over 25 MW we treated it as an electrical steam generating unit and compared future representative actual annual emissions with past actual emissions. Under this comparison, we found that there will be decreases of PSD-regulated pollutants.

The alternatives were to require Hillsborough County to accept lower emission limits than required by the EG, or accept annual steam or waste throughput limits equal to those of recent years, or to abide by their present 110% operating window. We decided, with the County concurrence, to require annual steam production limits.

We recommend your approval and signature.

AAL/th

Attachments

# Appendix - I

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT MODIFICATION

In the Matter of an  
Application for Permit Modification


Mr. Daniel A. Kleman  
County Administrator  
Hillsborough County  
601 East Kennedy  
Tampa, Florida 33602

Resource Recovery Facility  
PSD Permit No. PSD-FL-121(C)  
DEP File No. 0570261-002-AC  
Air Pollution Control Project  
Hillsborough County

Enclosed is the Final Permit Modification Number PSD-FL-121 (C) and 0570261-002-AC. This construction permit modification is to revise and clarify several specific conditions applicable to the resource recovery facility located at 350 Falkenburg Road, Tampa, Hillsborough County, Florida. The changes did not require further review pursuant to PSD and a Best Available Control Technology determination was not required. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

  
C.H. Fancy, P.E., Chief  
Bureau of Air Regulation

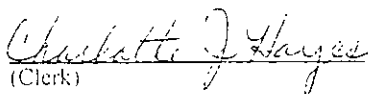
## CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT MODIFICATION (including the FINAL permit Modification) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 7/20/00 to the person(s) listed:

Daniel Kleman, County Administrator \*  
Mayor, City of Tampa  
Gregg Worley, EPA  
John Bunyak, NPS  
Rebeca S. Bigari, OMS  
Jerry Campbell, HCEPC  
Bill Thomas, DEP SWD  
Buck Oven

Clerk Stamp

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

 7/20/00  
(Clerk) (Date)



# Department of Environmental Protection

Jeb Bush  
Governor

Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

David B. Struhs  
Secretary

**PERMITTEE:**

Hillsborough County  
Resource Recovery Facility  
601 E. Kennedy  
Tampa, Florida 33602

FID No.	0570261
PSD No.	PSD-FL-121 (C)
SIC No.	4953
PPS No.	PA 83-19
Expires:	December 19, 2000

*Authorized Representative:*

Daniel A. Kleman  
County Administrator

**PROJECT AND LOCATION:**

Permit to replace air pollution control system on a nominal 1200 (1380 peak) ton per day waste combustion and energy recovery facility in order to comply with the requirements of 40CFR60, Subpart Cb - Emission Guideline and Compliance Times for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995. Electrostatic precipitators will be replaced with selective non-catalytic reduction systems, spray dryer absorbers, activated carbon injection units, and fabric filters. Permit defines wastes, which can be combusted and expands peak waste input to 115 percent of nominal capacity. The facility is located at 350 Falkenburg Road, Tampa, Hillsborough County. UTM coordinates are Zone 17; 368.20 km E; 3092.70 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. 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

Howard L. Rhodes, Director  
Division of Air Resources  
Management

**AIR CONSTRUCTION PERMIT PSD-FL-121(C) AND PA 83-19****SECTION I. FACILITY INFORMATION**

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**SUBSECTION A. FACILITY DESCRIPTION**

This existing facility consists of three mass-burn combustion units, with a nameplate (nominal) capacity to combust 400 tons per day (tpd) when burning solid waste with a heat content of 4,500 British thermal units (BTU) per pound (lb). Therefore, the facility has a nameplate (nominal) waste processing rate of 1,200 tpd (4,500 Btu/lb). The Facility generates electricity. The electric power is introduced into the electric grid and is sold. Each upgraded air pollution system will consist of a spray dryer absorber (SDA), fabric filter baghouse (FF), activated carbon injection (ACI) unit, and a selective non-catalytic reduction (SNCR) system.

**SUBSECTION B. REGULATORY CLASSIFICATION**

This facility is listed in Table 62-212.400 of Chapter 62-212, F.A.C., "Major Facilities Categories". Stack and fugitives emissions of over 100 tons per year of particulate matter, carbon monoxide, volatile organic compounds, sulfur dioxide, and nitrogen oxides, characterize the installation as a major facility. The installation of the new air pollution control system will not subject this facility to PSD review under the requirement of Rule 62-212.400, F.A.C., since there is not an increase in actual emissions. As a Resource Recovery Facility (waste-to-energy facility), the affected emissions units are subject to applicable requirements of Rule 62-296.416, F.A.C. Waste to Energy and Rule 62-204.800, F.A.C., which incorporates 40 CFR 60 Subpart Db, Subpart Cb, Subpart E, and Subpart Eb.

**SUBSECTION C. PERMIT SCHEDULE:**

- 05/28/00 Notice of Intent published in The Tampa Tribune
- 05/03/00 Issued Notice of Intent to Issue Permit
- 04/05/00 Application deemed complete
- 04/05/00 Application received at the Bureau of Air Regulation

**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:

- Permit Modification request received at the Bureau of Air Regulation on April 5, 2000.
- Application received (Bureau of Air Regulation) on September 16, 1997.
- Department's letters dated October 14, 1997.
- Company letters dated November 11, 1997, January 9, 13, 14, and February 20, 1998.



AIR CONSTRUCTION PERMIT PSD-FL-121(B) AND PA 83-19

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

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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) and the Power Plant Siting office, Florida Department of Environmental Protection (FDEP) at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-1344. All documents related to reports, tests, and notifications should be submitted to the DEP Southwest District office (DEPSW), 3804 Coconut Palm Drive, Tampa, Florida 33619 and phone number 813/744-6100 and the Environmental Protection Commission of Hillsborough County (HCEPC), 1900 Ninth Avenue, Tampa, Florida 33605 and phone number 813/272-5960.
- A.2 General Conditions: The owner and operator is 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 Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [40CFR 52.21(r)(2)].
- A.6 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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC). [Chapter 62-213, F.A.C.]
- A.7 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.

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

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SUBSECTION B. CONSTRUCTION REQUIREMENTS

- B.1 Unless otherwise indicated in this permit, the construction of the subject emissions unit (s) shall be in accordance with the design specifications stated in the application. Operation of the facility shall be in accordance with applicable provisions of the 40 CFR 60, Subpart Cb and with the emissions limits and process operating rates specified in the permit.

The facility 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 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. *Routine maintenance of equipment will not constitute a modification of this permit.* [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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) as soon as possible, but at least within (1) 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 Cb and procedures as established by recognized industry standards. All operators (including supervisors) of air pollution control device shall be

## AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

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

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properly trained and certified in plant specific equipment. A list of all such certified personnel shall be submitted to the DEP Southwest District office. Department 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.]

- 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 process weight input or 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 preclude the permittee from securing any other types of required permits, licenses, or certifications.

#### SUBSECTION F. ELECTRIC UTILITY STEAM GENERATING UNIT ACTUAL EMISSIONS

- F.1 Requirement: The permittee shall provide the Department within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in a "representative actual annual emissions" increase in accordance with Rule 62-210.200 (12)(d), F.A.C., and Rule 62-212.400, F.A.C. [40 CFR 52.21(b)(33), Rule 62-4.070 (3), Rule 62-212.400, and Rule 62-210.200, F.A.C.]

**AIR CONSTRUCTION PERMIT PSD-FL-121(C) AND PA 83-19****SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

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

The following emission limitations shall apply to each affected emissions unit after the proposed improvements to comply with 40 CFR 60 Subpart Cb are made and compliance testing is completed. This section addresses the following emissions units:

<b>EMISSIONS UNIT NO.</b>	<b>EMISSIONS UNITS DESCRIPTION</b>
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.3
100	Ash Building and Handling System

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 E and Subpart Cb, New Source Performance Standards for Incinerators and Emissions Guidelines for Existing Municipal Waste Combustors along with applicable requirements of Subpart Db, New Source Performance Standards for Steam Generating Units, 40 CFR 61.30, and Rule 62-296.416, F.A.C., Waste-to-Energy Facilities. In addition these emissions units 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.; and PSD-FL-104, 121 and 121(A)].**

{Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb where these requirements are referenced by Subpart Cb}

## AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

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

## SUBSECTION B. SPECIFIC CONDITIONS:

The following Specific Conditions apply to the following emissions units after improvements to comply with 40 CFR Subpart Cb are completed.

EMISSIONS UNIT NO.	EMISSIONS UNITS DESCRIPTION
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.3

{Permitting Note: Each of the three municipal waste combustor (MWCs) shall have a nominal design rate capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. The "operating window" of 115 percent (%) over the nominal design rate of 150MMBtu heat input corresponds to 172.5 MMBtu/hr heat input and 102,000 lb steam/ hour per each boiler. By letter dated March 17, 1998, D.B Riley, Inc. (boilers' manufacturer) indicated that it performed an evaluation of each boiler's ability to operate at the proposed increase steam flow of 102,000 lb steam/hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lb steam/hr. Short-term capacity is limited by limiting steam production (102,000 lb/hr), which effectively limits heat input.

The facility has a design net steam energy of 1158 Btu/lb (1378.86 Btu/lb steam enthalpy - 220 Btu/lb feedwater enthalpy)

## OPERATIONAL REQUIREMENTS

B.1 The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.

B.2 Process Operating Rates

The maximum individual MWC throughput shall not exceed 460 tons MSW per day (1380 tons per day entire facility), and 102,000 pounds steam per hour (on a 4-hour block arithmetic average). The incinerators/boilers shall not be loaded in excess of their maximum operating capacity, equivalent to 1380 tons MSW per day total, but no more than 1200 tons MSW per day on an annual (52 week rolling average) average basis for the entire facility. (Compliance per Specific Conditions B.13 and B.14)

[Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b, and 60.58b(j)]

[PSD-FL-121(A)/PA 83-19 and Rule 62-4.030(3), F.A.C.]

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). Each MWC unit shall not operate at a load

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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level greater than 110 percent of the unit's "maximum demonstrated unit load." The maximum demonstrated unit load is the highest 4-hour arithmetic averaged MWC unit load achieved during 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). [Rule 62-204.800(8), F.A.C., 40 CFR 60.31b; 60.38b; 60.51b; 60.53b(b); and 60.58b(i)(8)]

B.4 Emission Control Equipment

*Particulate Matter*

The combustor's particulate control baghouse shall be designed, constructed and operated to not exceed a maximum emission rate of 27 mg/dscm corrected to 7 percent O<sub>2</sub>. These baghouses/collectors shall be equipped with pressure drop monitoring equipment.

*Spray Dry Scrubber*

The facility shall be equipped with dry scrubbers which are designed, constructed and operated to remove SO<sub>2</sub> at an efficiency of 75 percent, or to not exceed a maximum emission rate of 29 ppmv corrected to 7 percent O<sub>2</sub>, 24-hour block geometric mean, whichever is less stringent.

*Carbon Injection*

The carbon injection rate must be estimated and maintained in compliance with the requirements set forth in 40 CFR 60.58b(m).

*Selective Non Catalytic Reduction System*

The facility shall be equipped with SNCRs which are designed, constructed and operated to not exceed a maximum NOx emission rate of 205 ppmv corrected to 7 percent O<sub>2</sub>, 24-hour block arithmetic mean (midnight to midnight).

Within 30 days after it becomes available, but before commencement of construction, the Permittee shall submit to the Department's Southwest District office copies of technical data pertaining to the selected emission control systems. This data should include, but not be limited to guaranteed efficiency and emission rates, and major design parameters.

B.5 Stack Height: The height of the boiler exhaust stack shall not be less than 220 feet above grade.

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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B.6 Fuels

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

B.6.1 Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility *shall not knowingly 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 61.31(g).

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 facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:

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

B.6.3 The facility owner/operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to 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 homogenous composition of waste material, as determined by visual inspection.

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

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

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

Natural gas 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 facility:

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

B.6.6 Subject to the conditions and limitations contained in this permit waste tires may be used as fuel at the facility. The total quantity of waste tires received as *segregated loads* and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with specific condition No. B.25 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 facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as *segregated loads* and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with specific condition No. B.25 below.

- (a) Construction and demolition debris.
- (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.



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- (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.
- (i) Waste materials specifically authorized in (a) through (g) above do not require Department approval.

B.7 Startup/Shutdown/Malfunctions

- (a) The emission limitations for this facility shall apply at all times, except during periods of warmup, startup, shutdown, or malfunctions, provided that the duration of startup, shutdown, or malfunction periods do not exceed 3 hours per occurrence. The duration of warmup periods is not limited. The startup period commences when the affected facility begins the continuous burning of MSW and does not include any warmup period when the affected facility is combusting only natural gas and MSW is not being introduced to the combustor. The use of MSW solely to provide thermal protection to the grate during the warmup periods when MSW 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.
- (b) A malfunction means any sudden and 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. [Rule 62-210.700, and 62-204.800(8), F.A.C., and 40 CFR 60.58b(a)(1)]

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## EMISSION LIMITATIONS

B.8 The following maximum emissions limits shall not be exceeded:

POLLUTANT	40 CFR 60, SUBPART Cb EMISSION STANDARDS	EQUIVALENT EMISSIONS		
		LB/MMBtu	LB/HR	TON/YR
<b>PM</b> <sup>(1)</sup> Particulate Matter	27 mg/dscm or 0.012 gr/dscf corrected to 7% O <sub>2</sub>	0.024	4.1	17.96
<b>VE</b> Visible Emissions	10% (6 min. block avg.)			
<b>Cd</b> Cadmium	0.040 mg/dscm corrected to 7% O <sub>2</sub>	3.47E-05	6.00E-03	0.026
<b>F</b> Fluorides	6.74 mg/dscm corrected to 7 % O <sub>2</sub>	0.0059	1.00	4.43
<b>Be</b> <sup>(3)</sup> Beryllium	1.48 ug/dscm corrected to 7 % O <sub>2</sub>	1.27E-06	2.18E-04	9.6E-04
<b>Pb</b> Lead	0.44 mg/dscm corrected to 7% O <sub>2</sub>	3.81E-04	0.065	0.288
<b>Hg</b> <sup>(5)</sup> Mercury	70 ug/dscm or 85% reduction by weight corrected to 7% O <sub>2</sub> (whichever is less stringent)	1.17E-04	0.020	0.087
<b>SAM</b> Sulfuric Acid Mist	To be demonstrated initially. Not to exceed 0.072 gr/dscf corrected to 12 % CO <sub>2</sub>			
<b>SO<sub>2</sub></b> <sup>(5)</sup> Sulfur Dioxide	29 ppmdv or 75% reduction by weight or volume corrected to 7% O <sub>2</sub> (whichever is less stringent)	0.190	32.86	143.9
<b>HCl</b> <sup>(5)</sup> Hydrochloric Acid	29 ppmdv or 95% reduction corrected to 7% O <sub>2</sub> (whichever is less stringent)	0.099	17.00	74.43
<b>Dioxins/Furans</b>	30 ng/dscm corrected to 7% O <sub>2</sub>	2.60 E-08	4.5E-06	1.96E-05
<b>CO</b> Carbon Monoxide	100 ppmdv corrected to 7% O <sub>2</sub>	0.101	17.4	76.26
<b>NOx</b> <sup>(2)</sup> Nitrogen Oxides	205 ppmdv corrected to 7% O <sub>2</sub>	0.34	58.63	256
<b>VOC</b> <sup>(4)</sup> Volatile Organic Compounds	To be demonstrated during the initial performance test.			

These maximum allowable emission rates are applicable to each MWC combustor unit.  
[Rules 62-4.070, and 62-296.416, F.A.C., 40 CFR 60.33b and 40 CFR 60.34b]

**Permitting Note:** These equivalent emissions (lb/hr and lb/mmBtu) are listed for the purposes of providing information, to indicate the potential to emit (TPY) and are not emission compliance standards.

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#### Notes:

- (1) This limit for PM is more restrictive than the emission limit for PM in 40 CFR 60.43b
- (2) The NO<sub>x</sub> standard of 40 CFR 60.44b do not apply to these emissions units because this permit subjects this facility to a federally enforceable requirement that limits the facility to an annual capacity factor of 10 percent or less for natural gas
- (3) Beryllium: This limit is adjusted downward to produce no net increase in the annual maximum potential emission rate. Refer to Table 1.1 of the application submitted on September 16, 1997.
- (4) VOC emission limit: 0.01 gr/dscf corrected to 12 % CO<sub>2</sub> or 0.2 lb/ton, whichever is more restrictive (PSD-FL-104).
- (5) Emission limits in terms of lbs/ MMBtu or lb/hr for those pollutants which have an emission standard expressed, in part by a percent removal efficiency, shall also be dictated by the percent removal provision.

Basis: Emissions calculations (lb/hr and ton/yr) are based on the maximum heat input rate of 172.5 MMBtu/hr (102,000 lb steam/hr) per unit and 8760 hours of operation.

#### Averaging Times

SO<sub>2</sub>: 24-hour daily block geometric mean (midnight to midnight)  
NO<sub>x</sub>: 24-hour daily block arithmetic mean (midnight to midnight)  
CO: 4-hour block arithmetic mean beginning at midnight  
Opacity: 6 minutes block arithmetic mean

#### Abbreviations

ug/dscm: Micrograms per dry standard cubic meter  
mg/dscm: Milligrams per dry standard cubic meter  
ppmdv: Part per million dry volume  
ng/dscm: Nanograms per dry standard cubic meter  
Dioxins/ furans: Total tetra through octa-chlorinated dibenzo-p dioxins and dibenzofurans  
F: Fluorides as hydrogen fluoride

Temperature: 17° C above maximum demonstrated PM control device inlet

Auxiliary Burners: Nitrogen oxides emission from the auxiliary burners are expected to approximately be 3.45 lb/hr and 15.1 ton/yr per unit. These emissions are part of, and not in addition to, combustor emissions. Allowable emissions for MSW combustors include auxiliary burners. This facility is limited to a 10 percent (0.10) or less total annual gross heat input for natural gas consumption. Auxiliary burners for each MWC unit shall be fired only by natural gas, and consumption of natural gas shall not exceed 104,937,500 cubic feet per MWC unit in any calendar year (i.e., annual capacity factor for natural gas of 10% or less as determined by 40 CFR 60.44b(d).  
[40 CFR 60.44b, Rule 62-210.200, 62-204.800 (8) and 62-4.070(3), F.A.C.]

### COMPLIANCE AND PERFORMANCE TESTING

Testing shall be conducted in accordance with the requirements of 40 CFR 60.58b Compliance and Performance Testing and 40 CFR 60.8. Performance Tests.

#### B.9 Stack Testing

Compliance tests [initial (I) and annual (A)] for SO<sub>2</sub>, NO<sub>x</sub> and CO shall be conducted pursuant to 40 CFR 60.58b, Compliance and Performing Testing.

Compliance tests [initial (I) and annual (A)] as indicated in Specific Condition No. B.8] for PM, HCl, Dioxin/furans, F, Be, Pb, Cd, Hg, H<sub>2</sub>SO<sub>4</sub> mist (SAM), VOC and VE shall be

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performed 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.

A test protocol shall be submitted for approval to the Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) at least 45 days prior to initial testing. **[Rule 62-204.800(8), F.A.C. and Chapter 62-297, F.A.C.]**

- Method 5<sup>(1)</sup>** Determination of Particulate Matter Emissions (front half catch only) from Stationary Sources (I) and (A).
- Method 8** Determination of Sulfuric Acid Mist from Stationary Sources (I).
- Method 9** Visual Determination of the Opacity of Emissions from Stationary Sources (I) and (A).
- Method 13A or 13 B** Determination of Total Fluoride Emissions from Stationary Sources (I) and (A).
- Method 18, 25 or 25a** Determination of Volatile Organic Concentrations (I).
- Method 23<sup>(2)</sup>** Determination of Dioxin/furan concentration from Stationary Sources (I) and (A).
- Method 26<sup>(3)</sup> or 26A** Determination of HCl emissions (I) and (A).
- Method 29<sup>(3)</sup>** Determination of Metals Emissions from Stationary Sources (I) and (A).

- (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.
- (2) Dioxin/Furan emission limit expressed as the total mass of tetra- through octa chlorinated dibenzo-p-dioxins and dibenzofurans. The facility may perform less frequent testing for dioxin/furan emissions, as allowed by 40 CFR 60.38b(b) and with prior notice to the Department, if the facility's dioxin/furan emissions do not exceed 15 ug/dscm corrected to 7% O<sub>2</sub> or less for all MWC units.
- (3) HCl and mercury stack tests upstream and downstream of the control device (s) shall be conducted to calculate percent control.

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Initial compliance tests for each combustion unit shall be conducted within 60 days after achieving maximum operating capacity, but not later than 180 days after startup. Annual tests shall be conducted within one year after the initial tests, unless otherwise allowed by the Department.

- B.10. Test Procedures: Compliance tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration etc.) of the Florida Administrative Code Chapter 62-297. The Method 9 test shall be conducted during one run of the particulate matter test. The particulate matter test shall be conducted under conditions representative of normal operations and shall be scheduled to coincide with as much of the normal cleaning (soot blowing) cycle as practicable. Initial performance tests for SO<sub>2</sub> and NO<sub>x</sub> shall be conducted using CEMS in accordance with the methods and requirements of 40 CFR 60.58b(e)(4) and (h)(3), respectively. **[Rule 62-204.800(8), F.A.C., and Rule 62-297.310, F.A.C.; and 40 CFR 60.38b (40 CFR 60.58b)]**
- B.11. 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.]**
- B.12. Monitoring Compliance:
- Continuous Compliance with Emission Limits: Continuous compliance with the emission limits for opacity, carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), sulfur dioxide (SO<sub>2</sub>) listed in B.8 and the operational parameters (steam production, etc.) listed in Specific Condition No. B.3 shall be demonstrated by continuous emission monitoring systems (CEMS) operated in accordance with 40 CFR 60.58b and 60.59b(f). **[Rule 62-204.800(8), F.A.C. and 40 CFR 60.38 (40 CFR 60.58b)]**
- B.13. Compliance With Load Level Requirements: The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feedwater flow meter; measure steam (or feedwater) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor (in accordance with the ASME method described in 40 CFR 60.58b(i)(6). Steam (or feedwater) flow shall be calculated in 4-hour block arithmetic averages. Higher loads are allowed for testing purposes as specified at 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)]**

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- B.14 Compliance with the Continuous Charging Rate: The daily solid waste charging rate and hours of operation shall be determined and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each MWC unit using the Facility's truck scale weight data, refuse pit inventory, and MWC operating data for the preceding calendar month. Monthly truck scale weight records on the weight of solid waste received and processed at the Facility and refuse pit inventory 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 per MWC unit for each day during the preceding calendar month. **[Rule 62-204.800(8), F.A.C., and 40 CFR 60.53(a)]**
- B.15 Compliance with the PM Control Device Temperature: Each MWC unit is required to continuously monitor and record the flue gas temperature at the inlet to the PM control device in accordance with the requirements at 40 CFR 60.58b(i)(7). The PM control device temperature shall be calculated in 4-hour block arithmetic averages. Each 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 block-averaged 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 (or feedwater) flow for each unit during the stack test shall be continuously monitored and recorded in accordance with 40 CFR 60, Subpart Cb. 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.16 Compliance with the Carbon Injection Rate: The carbon injection rate for each MWC unit (kilograms per hour [kg/hr] or pounds per hour [lb/hr]) shall be estimated during each mercury and dioxin/furan compliance stack test 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. During operation of each MWC unit, the carbon injection system operating parameter(s) that are the primary indicator(s) of carbon mass feed rate must equal or exceed the level(s) documented during the most recent mercury and dioxin/furan stack tests in which compliance with the emission limits were achieved. The owner or operator shall estimate the total carbon usage for the facility for each calendar quarter according to the weight of carbon delivered to the facility and the average carbon mass feed rate (kg/hr or lb/hr) for each MWC unit based on the primary indicator(s) for carbon mass feed rate, summing the results for all MWC units and accounting for the total number of operating hours during the calendar quarter.

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

**B.17 Auxiliary Burners Compliance:**

- (a) Auxiliary burners for each unit shall be fired only by natural gas. The annual capacity factor for natural gas shall be 10 percent or less. Monthly records shall be maintained of the amount of natural gas used by the auxiliary burners in each unit and the equivalent gross heat input. On an annual basis (no later than 60 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 in each unit was 10 percent or less. The annual capacity factor for natural gas is the ratio between the heat input to the unit from natural gas and the potential heat input to the unit had it been operated for 8760 hours during a calendar year at the maximum steady state design heat input capacity. **[Rule 62-4.070(3), F.A.C., and 40 CFR 60.44b(d)]**
- (b) During boiler start up, the auxiliary gas burners shall be operating at their maximum capacity prior to the introduction of MSW to the boilers, and shall remain in operation until the lime spray dryer and particulate control device are fully operational. **[Rule 62-4.070(3), F.A.C.]**

**MONITORING OF OPERATIONS**

- B.18 Continuous Emission Monitoring System(CEMS):** CEMS with recorders shall be installed, calibrated, maintained and operated for each unit subject to review by FDEP for the following pollutants and operational parameters:

Carbon Monoxide.

Nitrogen Oxides.

Opacity.

Sulfur Dioxide.

(SO<sub>2</sub> monitors shall be located both upstream of the scrubber and downstream of the baghouse, in order to calculate percent removal efficiency).

Oxygen.

Total steam production (lbs/hr, pressure, and temperature) or feedwater flow rate (lbs/hr)

Device to measure temperature of flue gases at the fabric filter inlet.

Carbon injection system operating parameters.

Power generation (MW).

Unless required in 40 CFR 60, Subpart Cb, operational data monitoring systems (steam production, baghouse inlet temperature measurement, carbon injection system and power

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generation) shall be calibrated annually and operated in accordance with good engineering practice.

**[Rule 62-204.800(8), F.A.C.; Rule 62-4.070 (3), F.A.C., and 40 CFR 60.58b]**

- B.19 The monitoring devices shall meet the applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.45, and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5). Quality assurance procedures must conform to all applicable sections of 40 CFR, Appendix F. Data on CEM/COM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed location after the economizer or in the air pollution control equipment outlet duct shall be provided to the Department's Southwest District Office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) for review at least 90 days prior to installation. Initial performance evaluations must be completed within 180 days after initial startup of each retrofitted unit. **[Rule 62-204.800(8) and 62-4.070(3), F.A.C.), 40 CFR 60.38 and 40 CFR 60.58b]**

#### RECORD KEEPING AND REPORTING REQUIREMENTS

B.20 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, or data are recorded. These data shall be made available to the Department of Environmental Protection, Southwest District office and the Hillsborough County Environmental Protection Commission upon request. **[Rule 62-4.070(3), F.A.C.; Rule 62-4.160(14)(b), F.A.C. and 40 CFR 60.59b]**

The Permittee shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to:

- (a) Data collected from monitoring instruments, including CEM/COM systems, steam or feedwater flow measurements and PM control device temperatures;
- (b) Continuous steam flow or feedwater flow records on 4-hour block average basis;
- (c) Records on daily solid waste charging rates and hours of operation derived from monthly truck scale data, refuse pit inventory, and operational records.



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- (d) Amount of natural gas burned for each unit each month; the equivalent heat input from natural gas for each unit each month, calculated using the heat value for natural gas provided by the natural gas supplier; and the annual records of the natural gas capacity factor for each unit;
- (e) Results of all source tests or performance tests; and records of the maximum demonstrated unit load specified by condition B.3 of this permit.
- (f) Amounts of activated carbon used for mercury control;
- (g) Calibration logs for all instruments subject to this permit;
- (h) Maintenance/repair logs for any work performed which is subject to this permit;
- (i) Records showing the names of facility personnel who have been provisionally or fully certified, and who have completed the MWC operator training course, and who have completed reviews of the operating manual, including the dates and documentation of certification/review.
- (j) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by specific condition B.25 of this permit.

B.21. Excess Emission Reports

B.21.1 Quarterly Reports

The owner or operator shall submit excess emission reports for any calendar quarter during which there are excess emissions from the facility 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

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malfunction (if known) and the corrective action taken or preventive measure 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)]. In case of excess emissions resulting from malfunctions, the owner or operator shall notify FDEP and the HCEPC in accordance with Section 62-4.130, F.A.C.

**B.21.2 Other Excess Emission Reports**

In case of excess emissions resulting from malfunctions\*, the owner or operator shall notify Department's Southwest District office (DEPSWD) and the Hillsborough County Environmental Protection Commission (HCEPC) in accordance with Section 62-4.130, F.A.C. The DEPSWD and the HCEPC shall be notified within one working day 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 DEPSWD or the HCEPC 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 DEPSWD or HCEPC.

\* Malfunction is defined at Rule 62-210.200(179) 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.22 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 location shall be provided to the Department's Southwest District office and the Hillsborough County Environmental Protection Commission for review at least 90 days prior to installation.

- B.23 Operating Reports:** Before March 1st of each year, the owner or operator shall submit to the Department Southwest District office (DEPSW) and the Hillsborough County

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Environmental Protection Commission (HCEPC) 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 FDEP and the HCEPC offices 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.24 Sampling Reports: Drawings of testing facilities including sampling port locations as required by Section 62-297.310(8)(c) shall be submitted to the Southwest District Office at least 60 days prior to construction of the sampling ports.
- B.25 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:

Each segregated load of non-MSW materials, that is subject to the percentage weight limitation of specific conditions 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 previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of *tires* shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

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

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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OPERATOR TRAINING AND CERTIFICATION

B.26 Requirements

- (a) One of the following persons must be on duty at the facility at any time during which one or more of the MWC units is operating: a fully certified chief facility operator or shift supervisor; or a provisionally certified chief facility operator or shift supervisor who is scheduled to take the full certification exam. If this person must leave the facility during his or her operating shift, a provisionally certified control room operator who is on site may fulfill this requirement. **[40 CFR 60.39b(c)(4) (ii) and 40 CFR 60.54b(c)].**
- (b) Each chief facility operator and shift supervisor must obtain and maintain a current provisional operator certification and be scheduled for a full certification exam, or receive full certification, with either the ASME or an equivalent state-approved certification program before the date that person assumes responsibility for operation of the facility. **[40 CFR 60.39b(c)(4)(ii) and 40 CFR 60.54b(a) and (b)]**
- (c) Each chief facility operator, shift supervisor, and control room operator must complete the EPA or state approved MWC operator training course before the date that person assumes responsibility for operation of the facility. The operator training course requirements of 40 CFR 60.54b(d) do not apply to chief facility operators, shift supervisors and control room operators who have obtained full ASME certification on or before the date of State plan approval of November 13, 1997 [40 CFR 60.39b(4)(iii)(c)(A)]. The owner or operator may request that the Department waive the 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 of November 13, 1997 [40 CFR 60.39b(4)(iii)(c)(B)].  
**[40 CFR 60.39b(c)(4) and 40 CFR 60.54b(d)]**
- (d) A site-specific operating manual must be developed and updated on an annual basis [40 CFR 60.54b(e)]. A training program must be established to review the operating manual with each person who has responsibilities affecting the operation of the MWC including chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers. Each person must undergo initial training before the day that person assumes responsibilities affecting operation of the facility and annually thereafter [40 CFR 60.54(f)]. The operating manual must be kept in a readily accessible location for all persons required to undergo training.  
**[40 CFR 60.54b(e) and 40 CFR 60.54b(f)]**

**AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19****SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS**

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**SUBSECTION C. SPECIFIC CONDITIONS:**

The following Specific Conditions apply to the following emissions units:

<b>EMISSIONS UNIT NO.</b>	<b>EMISSIONS UNITS DESCRIPTION</b>
100	Ash Building and Handling System
101	Lime Silo
102	Carbon Silo

**EMISSION LIMITATIONS****C.1 Lime and Carbon Silos and Ash Conveyor and Handling System:**

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

- (a) In no case shall PM emissions from the lime storage silos exhaust exceed 0.015 gr/dscf (front-half catch) during filling operations of the lime storage silo. Visible emissions shall not exceed 5% opacity in accordance with specific condition C.3.
- (b) In no case shall particulate matter emissions from the activated carbon storage silo exhaust exceed 0.015 gr/dscf (front-half catch) during filling operations of the activated carbon storage silo. 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. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor of the refuse bunker while trucks are entering and leaving) will be under negative air pressure. 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 to minimize visible dust. The ash/residue in the Ash Handling Building shall remain sufficiently moist to prevent dust during storage and handling operations.

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

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

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- (e) PM emissions from the ash handling facility baghouse shall not exceed 1.63 pounds per hour. Visible emissions shall not exceed 5 percent opacity in accordance with specific condition C.3.

**[Rule 62-04.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b]**

{Note: The fugitive particulate matter control requirements for the ash handling activities specified in 40 CFR 60.55b and in this permit represent RACT for this facility pursuant to the Department's authority of **Rule 62-296.711(2)(c), F.A.C.**}

**COMPLIANCE AND PERFORMANCE TESTING**

**C.2 Fugitives Emissions Compliance:**

The compliance method for fugitive emissions from ash handling facilities shall be:

**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 for the ash handling and ash conveyor systems shall be conducted within 180 days of completion of construction and initial operation and annually thereafter. All notification requirements of 40 CFR Part 60 shall be satisfied.

Permanent stack facilities are not required for the ash handling building vent.  
**[Rule 62-04.070(3), F.A.C., 40 CFR 60.36b and 40 CFR 60.55b]**

**C.3 Carbon and Lime Storage Silos and Ash Building Baghouse PM Compliance**

Requirements: Pursuant to Section 62-297.620(4), F.A.C., the PM compliance test requirements are waived for the lime and carbon storage silos and ash building baghouse and an alternate standard of 5 percent opacity shall apply. Visible emission tests shall be performed for each silo during filling operations and the ash handling baghouse using Method 9. A visible emission reading greater than 5 percent opacity does not create a presumption that the emission limit (in gr/dscf) is being violated, but may require the permittee to perform a particulate stack test using EPA Method 5. Compliance testing for the lime and carbon silos and ash handling building baghouse shall be conducted within 180 days of completion of construction and initial operation and annually thereafter. All notification requirement of 40 CFR 60 shall be satisfied.  
**[Rule 62-297.620(4), F.A.C.]**

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

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
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit No.3
100	Ash Building and Handling System
101	Lime Silo
102	Carbon Silo

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 facility shall remain closed except during normal working shifts when MSW is being received at the storage pit area. To minimize odors at the facility, 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/Malfunctions
- (a) In order to minimize excess emissions during startup/shutdown/malfunction these emissions units shall adhere to best operational practices to minimize emissions.
- The duration of excess emissions from the lime silo, carbon silo or ash building baghouse 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 the construction authorized in this permit, the permittee shall submit to the DEP Southwest District office an operational procedures

AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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manual that identifies and describes best operational practices that will be used during startup, shutdown, and malfunctions of this facility.

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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) in writing at least *30 days* (initial) and *15 days* (annual) 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 Department. 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 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 Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC).  
[Rule 62-297.310(7)(b), F.A.C.]



AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

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- D.7 Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit 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. Higher loads are also allowed for testing purposes as specified at 40 CFR 60.53b(b). See also specific conditions B.2, B.3, and B.13 of this permit. [Rule 62-297.310(2) and (3), F.A.C.]

RECORD KEEPING AND REPORTING REQUIREMENTS

- D.8 Emission Compliance Stack Test Reports:

- (a) A *test report* indicating the results of the required compliance tests shall be filed with the Department Southwest District office (DEPSW) and the Hillsborough County Environmental Protection Commission (HCEPC) as soon as practical, but no later than 45 days after the last sampling run is completed. [Rule 62-297.310(8), F.A.C., and 40 CFR 60.59(b)(f)]
- (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.**

SCHEDULE OF COMPLIANCE

- D.9. The compliance schedule for each unit is provided below.

*Increment 1:* Submittal of a final control plan for the designated facility to the appropriate air pollution control agency. December 31, 1996 - applicable to units 1, 2 and 3.

*Increment 2:* Awarding of contracts for emission control systems or for process modifications, or issuance of orders for the purchase of component parts to accomplish emission control or process modification. December 31, 1997- applicable to units 1, 2 and 3.

*Increment 3:* Initiation of on site construction or installation of emission control equipment or process change. February 28, 1999 - applicable to the first unit. July 30, 1999 - applicable to the second unit. April 30, 2000 - applicable to the third unit.

**AIR CONSTRUCTION PERMIT PSD-FL-121(C) and PA 83-19**

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

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The order of the construction schedule (i.e., which unit is first, second and third) will be identified in the final control plan.

*Increment 4:* Completion of on-site construction or installation of emission control equipment or process change. September 30, 2000 - applicable to units 1, 2 and 3.

*Increment 5:* Final compliance. December 10, 2000 - applicable to units 1, 2 and 3.

Closure Agreement: Not later than November 13, 2000, the County will cease operation of any unit that has not completed on-site construction or installation of emission control equipment and is not involved in performance testing. After closure, said units may commence startup, shakedown and performance/compliance testing per the closure agreement. Performance/compliance tests must be completed within 180 days of startup.

**[Rule 62-204.800(8)9.b.,F.A.C.]**

## APPENDIX GC GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
  - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.
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## APPENDIX GC GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

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The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ( )
  - (b) Determination of Prevention of Significant Deterioration ( );
  - (c) Compliance with New Source Performance Standards (X);
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - (c) Records of monitoring information shall include:
    - 1. The date, exact place, and time of sampling or measurements;
    - 2. The person responsible for performing the sampling or measurements;
    - 3. The dates analyses were performed;
    - 4. The person responsible for performing the analyses;
    - 5. The analytical techniques or methods used; and
    - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
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STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION  
NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit by:


Mr. Daryl Smith, Director  
Hillsborough County  
601 East Kennedy Boulevard  
Tampa, Florida 33602

DEP File No. 0570261-004-AC  
Dolomitic Lime Storage Silo  
Hillsborough County

Enclosed is Final Permit Number 0570261-004-AC. This permit authorizes Hillsborough County to construct a Dolomitic Lime Storage Silo at its Hillsborough County Resource Recovery Facility located at 350 Falkenburg Road, Tampa, Hillsborough County. This permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

  
C. H. Fancy, P.E., Chief  
Bureau of Air Regulation

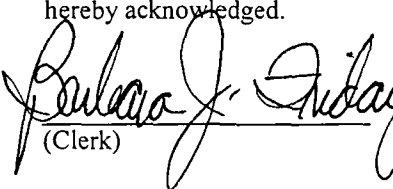
CERTIFICATE OF SERVICE

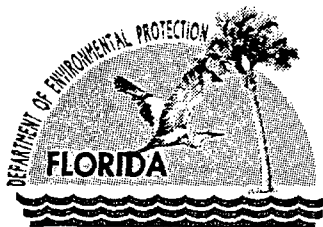
The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the Final permit) was sent by certified mail (\*) and copies were mailed by U.S. Mail before the close of business on 3/27/02 to the person(s) listed:

Mr. Daryl Smith, Director, Hillsborough County Solid Waste Management Department \*  
Mr. Jason Gorrie, P.E., Camp Dresser & McKee  
Mr. Bill Thomas, P.E., DEP SWD

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk) Friday 3/27/02  
(Date)



Jeb Bush  
Governor

# Department of Environmental Protection

Marjory Stoneman Douglas Building  
3900 Commonwealth Boulevard  
Tallahassee, Florida 32399-3000

David B. Struhs  
Secretary

## PERMITTEE

Hillsborough County  
601 East Kennedy Boulevard  
Tampa, Florida 33602

<b>Permit No.</b>	0570261-004-AC
<b>Project</b>	Dolomitic Lime Storage Silo
<b>SIC No.</b>	4953
<b>Expires:</b>	December 31, 2002

## Authorized Representative:

Daryl Smith, Director, Hillsborough County Solid  
Waste Management Department

## PROJECT AND LOCATION

This permit authorizes Hillsborough County, to construct a new Dolomitic Lime Storage Silo at the existing Hillsborough County Resource Recovery Facility.

This facility is located at 350 Falkenburg Road, Tampa, Hillsborough County. The UTM coordinates are: Zone 17; 368.2 km E and 3092.7 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. The above named permittee is authorized to construct the emissions units 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).

## APPENDICES

The attached appendix is a part of this permit:

Appendix GC     General Permit Conditions

for   
Howard L. Rhodes, Director  
Division of Air Resources  
Management

**AIR CONSTRUCTION PERMIT**  
**SECTION I. FACILITY INFORMATION**

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**FACILITY AND PROJECT DESCRIPTION**

The existing facility consists of three municipal waste combustors (MWCs) having a nominal design rate capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. Natural gas fired auxiliary burners and combustion control systems with continuous monitoring devices for combustion and process parameters and SO<sub>2</sub>, NO<sub>x</sub> and CO are installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber, a fabric filter, and activated carbon injection system. A selective non-catalytic reduction system (SNCR) and auxiliary gas burners are installed in the furnaces. The facility also has an ash building and handling system and a new lime storage silo and activated carbon storage silo.

The applicant is proposing to install an additional 3000 cubic feet capacity silo for the storage of dolomitic lime. The lime is used as an ash conditioning agent at the resource recovery facility. Emissions are limited to the pneumatic loading of the silo and will be controlled by a baghouse bin vent filter. The applicant did not seek any relaxation in currently enforceable conditions in its other existing emissions units.

The emissions increases associated with this project were estimated as follows in tons per year. No offsetting emissions were assumed in this estimate.

<b>Pollutant</b>	<b>Net Increase <sup>1</sup></b>	<b>PSD Significance</b>	<b>Subject to PSD?</b>
PM/ PM <sub>10</sub>	0.39	25/15	No
SO <sub>2</sub>	N/A	40	No
NO <sub>x</sub>	N/A	40	No
CO	N/A	100	No
VOC	N/A	40	No

<sup>1</sup> Assume 6.32 pounds per hour, when operated as described by the permit application.

The facility information, project scope, emissions and rule applicability are described in detail in the Department's Technical Evaluation and Determination.

**REVIEWING AND PROCESS SCHEDULE**

November 2, 2001	Received permit application (no application fee required)
December 3, 2001	Application complete
February 27, 2002	Distributed Notice of Intent to Issue and supporting documents
March 12, 2002	Notice of Intent published in The Tampa Tribune

**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.

- Permit application
- Department's Technical Evaluation and Determination
- Department's Intent to Issue

**AIR CONSTRUCTION PERMIT****SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS**

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The following specific conditions apply to all emissions units at this facility addressed by this permit.

**ADMINISTRATIVE**

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 at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's Southwest District office at 3804 Coconut Palm Drive, Tampa, Florida 33619-8218, and phone number 813/744-6100.
2. General Conditions: The owner and operator is 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, F.S. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S.; Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297, F.A.C.; and, the Code of Federal Regulations Title 40, Part 60, adopted by reference in the F.A.C. regulations. 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. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. 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. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on December 31, 2002. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A revision to the Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for a Title V operation permit at least ninety days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a



**AIR CONSTRUCTION PERMIT****SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS**

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Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Southwest District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

**OPERATIONAL REQUIREMENTS**

9. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's Southwest District office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]
10. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]
11. Excess Emissions: This permit does not change any authorization for excess emissions provided by other Department permits for other emissions units. The following excess emissions provisions of state rule apply to this emissions unit (emissions unit 106) as specified below.
  - (a) Excess emissions resulting from start-up and shutdown are permitted for emissions unit 106 providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period.
  - (b) Excess emissions resulting from malfunction of this emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
  - (c) 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 start-up, shutdown, or malfunction shall be prohibited.

[Rules 62-210.700(1), (4) and (5), F.A.C.]

**COMPLIANCE MONITORING AND TESTING REQUIREMENTS**

12. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]
  - (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
  - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank

## AIR CONSTRUCTION PERMIT

### SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

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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.

#### REPORTING AND RECORD KEEPING REQUIREMENTS

13. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
14. Excess Emissions Report: In case of excess emissions resulting from malfunction, the owner or operator shall notify the Department's Southwest District office within one working day 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 Department 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 Department. [Rules 62-4.130 and 62-210.700(6), F.A.C.]
15. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Southwest District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

## AIR CONSTRUCTION PERMIT

## SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions apply to the following emissions units after construction.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
106	Dolomitic Lime Storage Silo

Lime used for ash conditioning for each municipal waste combustor is stored in a silo. Emissions from the silo are controlled by a baghouse.

{Permitting note(s): This emissions unit is regulated under Rule 62-296.310(b), F.A.C., General Visible Emissions Standard}

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

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

1. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

**Emission Limitations and Standards**

2. Particulate Matter. Particulate matter emissions shall not exceed 6.32 pounds per hour and 0.39 tons per year. [Additional information received December 3, 2001]

3. Visible Emissions. Visible emissions shall not be equal to or greater than 20 percent opacity. [Rule 62-296.320(b)1., F.A.C.]

**Test Methods and Procedures**

4. Particulate Matter. The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** [Rule 62-297.620(4), F.A.C.]

5. Visible Emissions. EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C. [Rule 62-297.401, F.A.C.]

6. In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the

**AIR CONSTRUCTION PERMIT****SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS**

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substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit.

If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.

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

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

[Rules 62-297.310(2) & (2)(b), F.A.C.]

8. Applicable Test Procedures.

(a) Required Sampling Time.

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

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

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

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

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

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

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

**AIR CONSTRUCTION PERMIT****SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS**

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**(a) General Compliance Testing.**

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

a. Did not operate;

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

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

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

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

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

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

**AIR CONSTRUCTION PERMIT****SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS**

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**Recordkeeping and Reporting Requirements****10. Test Reports.**

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
- (b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
  2. The facility at which the emissions unit is located.
  3. The owner or operator of the emissions unit.
  4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  8. The date, starting time and duration of each sampling run.
  9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  10. The number of points sampled and configuration and location of the sampling plane.
  11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
  12. The type, manufacturer and configuration of the sampling equipment used.
  13. Data related to the required calibration of the test equipment.
  14. Data on the identification, processing and weights of all filters used.
  15. Data on the types and amounts of any chemical solutions used.
  16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
  17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
  18. All measured and calculated data required to be determined by each applicable test procedure for each run.
  19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
  20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

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21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

## APPENDIX GC

### GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

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- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
  - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
  - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.
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## APPENDIX GC

### GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

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The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ( );
  - (b) Determination of Prevention of Significant Deterioration ( ); and
  - (c) Compliance with New Source Performance Standards ( ).
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - (c) Records of monitoring information shall include:
    - 1. The date, exact place, and time of sampling or measurements;
    - 2. The person responsible for performing the sampling or measurements;
    - 3. The dates analyses were performed;
    - 4. The person responsible for performing the analyses;
    - 5. The analytical techniques or methods used; and
    - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.
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# Appendix - I

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NOTICE OF PERMIT

In the Matter of an  
Application for Permit by:

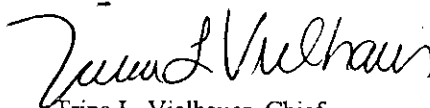
Mr. Barry M. Boldissar, Director  
Hillsborough County  
Department of Solid Waste Management  
601 East Kennedy Boulevard  
Tampa, Florida 33602

DEP File No. 0570261-007-AC  
Permit No. PSD-FL-369 (PA83-19A)  
Hillsborough County Resource Recovery Facility  
Unit 4, Nominal 600 TPD Municipal Waste Combustor  
Hillsborough County

Enclosed is Final Permit Number 0570261-007-AC and PSD-FL-369 for the construction of a nominal 600 tons per day municipal waste combustor designated as Unit 4 at the Hillsborough County Resource Recovery Facility Site. The site is located at 350 North Falkenburg Road in Tampa, Hillsborough County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT (including the Final permit) was sent by certified mail (\*) and copies were sent by U.S. Mail or electronic mail before the close of business on 10/3/06 to the person(s) listed:

Barry M. Boldissar, Hillsborough County DSWM\*  
Jim Norman, Chair, Hillsborough County BCC\*  
Pam Iorio, Mayor, City of Tampa  
Glenn Hoag, Covanta Hillsborough, Inc.\*  
Gregg Worley, U.S. EPA Region 4, via e-mail  
John Bunyak, National Park Service, via e-mail

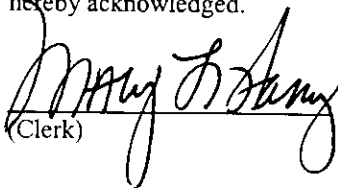
Steven L. Palmer, P.E., DEP PPSO, via e-mail  
Mara Nasca, DEP SWD, via e-mail  
Paul Darst, DCA, via e-mail  
Jerry Campbell, P.E. Hillsborough Co. EPC, via e-mail  
Jason M. Gorrie, P.E., CDM, via e-mail

Clerk Stamp

**FILING AND ACKNOWLEDGMENT FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

(Clerk)

(Date)



10/3/06

## FINAL

## PERMITTEE

Hillsborough County Department Solid Waste Management 601 East Kennedy Boulevard Tampa, Florida 33602	DEP File No.: 0570261-007-AC
	Permit No.: PSD-FL-369
	Facility ID No.: 0570261
	Project: Resource Recovery Facility Unit 4

## PROJECT AND LOCATION

This permit authorizes the construction of a nominal 600 ton per day (TPD) Municipal Waste Combustor referred to as Unit 4 at the existing facility.

The existing facility, Hillsborough County Resource Recovery Facility (HCRRF), is located at 350 N. Falkenburg Road, Tampa, Hillsborough County. The UTM coordinates are Zone 17, 368.2 km East and 3092.7 km North; Latitude: 27° 57' 14" North and Longitude: 82° 40' 22" West.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the work specified 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.

## Appendices

The following Appendices are attached as part of this permit.

Appendix A - NSPS Subpart A, Identification of General Provisions


Appendix BD - BACT Determination

Appendix Eb - NSPS Subpart Eb, Standards of Performance For Large Municipal Waste Combustors

Appendix GC - General Conditions

Appendix SC - Standard Conditions

Expiration Date: December 31, 2009

  
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Joseph Kahn, P.E.      10/2/06  
Director      Effective Date  
Division of Air Resource Management

JK/TLV/AAL/sms

**FACILITY DESCRIPTION**

The existing facility, Hillsborough County Resource Recovery Facility (HCRRF), is located at 350 N. Falkenburg Road, Tampa, Hillsborough County.

The existing facility consists of three municipal waste combustors (MWCs), each having a nominal design rate capacity of 400 tons MSW (municipal solid waste) per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound.

The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation. The Hillsborough County Resource Recovery Facility began operation in 1987.

**PROJECT**

The permittee, Hillsborough County, proposes to construct a new 600 ton per day (TPD) Municipal Waste Combustor referred to as Unit 4 at the existing facility. The nominal design rate capacity is 600 tons MSW per day, with a nominal heat input of 288 MMBtu per hour and nominal steam production of 163,780 pounds per hour (maximum 190,000 lb/hr). The new unit will be equipped with two natural gas-fired auxiliary burners, each with a nominal heat input of 50 MMBtu per hour. The new unit will be installed at the existing site. The flue for the new boiler is already encased in the existing stack. With the addition of the fourth unit, the existing 220 feet tall stack will contain four active flue streams. With the addition of this unit, the site capacity will increase from approximately 1,200 TPD to 1,800 TPD. The site's steam electric generating capacity will be increased from 39 MW to 47 MW (nominal).

The existing ash building and handling system will be expanded. Two new lime storage silos and a new activated carbon storage silo will be constructed for Unit 4.

Unit 4 will be a mass burn unit incorporating much of the same technology as the existing units including: combustion on a reverse-reciprocating grate system; ash discharge system; energy recovery through the furnace waterwall, superheater and economizers; electrical power production; and a pollution control system consisting of a spray dryer, fabric filter, activated carbon injection system and a selective non-catalytic reduction (SNCR). In addition, the new unit will incorporate flue gas recirculation for energy efficiency and pollution reduction.

**REGULATORY CLASSIFICATIONS**

*Section 111, Clean Air Act, Standards of Performance for New Stationary Sources (NSPS):* The new unit is a large Municipal Waste Combustor (MWC) unit subject to 40CFR60, Subpart Eb - Standards of Performance for New Stationary Sources and Emission Guidelines for Municipal Waste Combustors.

*Section 112, Clean Air Act, Hazardous Air Pollutants (HAPs):* The facility is a major source of HAPs. The maximum achievable control technology (MACT) requirements typically specified in the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for this industry were included in 40CFR60, Subpart Eb as required by Section 169, Clean Air Act, Solid Waste Combustion.

*Title IV, Acid Rain:* The facility operates no units subject to the acid rain provisions of the Clean Air Act.

*Title V, Clean Air Act, Permits:* The facility is a Title V or "Major Source" of air pollution because the potential emissions of at least one regulated pollutant exceed 100 tons per year or because it is a Major Source of HAPs. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

*Part C, Clean Air Act, Prevention of Significant Deterioration (PSD):* The facility is located in an area that is designated as "attainment", "maintenance", or "unclassifiable" for each pollutant subject to a National Ambient Air Quality Standard. The facility is classified as a "municipal incinerator capable of charging more than 250 tons of refuse per day", which is one of the facility categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year, therefore the facility is classified as a "Major Stationary Source" with respect to Rule 62-212.400 F.A.C.

*Stationary Sources - Emission Standards in Chapter 62-296, F.A.C.:* The facility operates one or more units subject to emission standards. The new Unit 4 is subject to the mercury standard in Rule 62-296.416, F.A.C. The numerical mercury emissions limit under state Rule 62-296.416, F.A.C., is more stringent than the NSPS emissions limit.

*Reasonable Available Control Technology (RACT):* The entire State of Florida is either classified as attainment or considered to be in attainment (i.e., unclassifiable) with respect to the NAAQS for all pollutants. However, the facility is located in a maintenance area for ozone, particulate matter and lead. The VOC and NO<sub>x</sub> RACT provisions do not apply. The new unit has operations that are subject to PM RACT.

*Siting:* The facility was originally certified under PA83-19 pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

## RELEVANT DOCUMENTS

- Received Site Certification and PSD application on November 21, 2005;
- Sufficiency information requested via Power Plant Siting Office on January 10, 2006;
- Supplemental information received on January 17, 2006;
- Received responses to sufficiency request on March 2, 2006;
- Intent to Issue PSD Permit distributed with Siting Staff Report on May 24, 2006;
- Department's Technical Evaluation & Preliminary Determination dated May 24, 2006;
- Comments received from Camp Dresser McKee (CDM) submitted on behalf of the County and dated June 8 and June 22, 2006;
- Comments received from Covanta Hillsborough, Inc. and dated June 22, 2006;
- Recommended Certification Order issued by the Division of Administrative Hearing on August 2, 2006;
- Final Order, including Conditions of Certification, approved by the Siting Board on September 19 and clerked on September 27, 2006; and
- Department's Final Determination dated September 29, 2006.

**GENERAL AND ADMINISTRATIVE REQUIREMENTS**

1. Permitting Authority: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the compliance authority. The compliance authority is the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. General Conditions: The owner and operator are subject to, and shall operate under, the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.); and the Title 40, Parts 51, 52, 60, 63, 72, 73, and 75 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. 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. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Construction and Expiration: The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(6)(b), F.A.C.]
6. New or Additional Conditions: 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. [Rule 62-4.080, F.A.C.]

7. Source Obligation.

- (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.
- (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification
- (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification.

[Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

9. Title V Permit: This permit authorizes construction of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emission units. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air Regulation and a copy to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

## A. Common Conditions

The proposed new emissions units are:

E.U. ID No.	Emission Unit Descriptions
-107	Nominal 288 MMBtu/hr Municipal Waste Combustor & Auxiliary Burners - Unit 4
-108	Pebble Lime Storage Silo - Unit 4
-109	Dolomitic Lime Storage Silo - Unit 4
-110	Activated Carbon Storage Silo - Unit 4
-111	Cooling Tower Cell

## CONSTRUCTION ACTIVITIES

1. Unconfined Particulate Matter Emissions: Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter include the following requirements consistent with current practices by the permittee:

All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. The unpaved areas of the facility will be maintained and either sodded or landscaped. Hoods, fans, filters, or similar equipment will be used to contain, capture, and/or vent particulate matter. The conveyor systems of the facility will be enclosed or covered. The ash will be wetted before being stored in the ash handling building. 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 or leaving) shall be under negative air pressure. [Rule 62-296.320(4)(c)2., F.A.C.; and, items proposed by the applicant.]

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]



## B. Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4

This section of the permit addresses the following emissions units.

**Emissions Unit 107**

**Description:** Emissions unit 107 consists of a nominal 600 TPD mass-burn municipal waste combustor (MWC) with two nominal 50 mmBtu/hr natural gas-fired auxiliary burners. The project will also include: a new nominal 17 megawatt (MW) steam turbine-electrical generator; expansion of the ash handling and refuse building; a new transformer yard; a new lime silo; a urea reagent storage tank; and a new settling basin. Exhaust from the new unit will be directed to a separate flue already constructed within the existing 220 foot stack.

**Steam Capacity:** The nominal steam production rate is 163,780 pounds of steam per hour. The maximum steam production limit is 190,000 lb steam/hr (4-hour block average). The nominal heat input is approximately 288 mmBtu/hour.

**Controls:** Controls consist of: efficient combustion on the grate and furnace; flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) to enhance mercury (Hg) removal; selective non-catalytic reduction (SNCR) by ammonia or urea injection for NO<sub>x</sub> control.

**Stack Parameters:** The Department may require the permittee to perform additional air dispersion modeling should the actual specified stack dimensions change. The following summarizes the exhaust characteristics:

<u>Fuel</u>	<u>Heat Input Rate</u>	<u>Exhaust Temp., °F</u>	<u>Flow Rate ACFM</u>
MSW	~288 mmBtu/hour	270° F	~125,000

**Continuous Monitors:** The unit is equipped with continuous emissions monitoring systems (CEMS) to measure and record NO<sub>x</sub>, CO, SO<sub>2</sub>, and Hg as well as instrumentation to monitor steam flow, flue gas flow rate, oxygen, temperature, and opacity.

**APPLICABLE STANDARDS AND REGULATIONS**

1. **BACT Determinations:** The emission unit addressed in this section is subject to a Best Available Control Technology (BACT) determination for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), MWC acid gases (SO<sub>2</sub>+HCl); SO<sub>2</sub> as an individual pollutant, and MWC organics (dioxin/furan). [Rule 62-212.400, F.A.C.]
2. **NSPS Requirements:** The municipal waste combustor and auxiliary burners shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts.

**B. Municipal Waste Combustor & Auxiliary Burners - Unit 4****(a) Subpart A, General Provisions, including:**

- 40 CFR 60.7, Notification and Record Keeping
- 40 CFR 60.8, Performance Tests
- 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
- 40 CFR 60.12, Circumvention
- 40 CFR 60.13, Monitoring Requirements
- 40 CFR 60.19, General Notification and Reporting Requirements

**(b) Subpart Eb, Standards of Performance for Large Municipal Waste Combustors**

3. Emission Standards for Stationary Sources: This unit has a charging rate of 40 tons per day or more and is subject to the requirements of Stationary Sources – Emission Standards for Waste-To-Energy Facilities of Rule 62-296.416, F.A.C.

**AIR POLLUTION CONTROL TECHNOLOGY**

4. Control Equipment: The owner or operator shall install, operate and maintain the following air pollution control equipment consistent with the manufacturers' specifications.

*NO<sub>x</sub> Controls:* A flue gas recirculation system (FGR) will be used to limit NO<sub>x</sub> formation. A urea-based selective non-catalytic reduction (SNCR) system will be employed for the destruction of NO<sub>x</sub>.

*MWC Acid Gas Control:* A spray dryer (SD) with lime injection will be installed to absorb MWC acid gases.

*MWC Organics and Mercury (Hg):* An activated carbon injection (ACI) system will be installed to adsorb MWC organics and mercury (Hg).

*Particulate Matter (PM/PM<sub>10</sub>):* A fabric filter (FF) baghouse, including absorption/adsorption reagent, will be installed to remove particulate matter.

[BACT Determination, and Rules 62-4.070(1), and (3), F.A.C.]

**OPERATIONAL DESCRIPTIONS AND LIMITATIONS**

5. Nameplate: The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, and rated capacity.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

6. Hours of Operation. This emissions unit may operate continuously, i.e., 8,760 hours/year.  
[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

7. Permitted Capacity. The maximum steam production rate shall not exceed 190,000 pounds steam per hour (on a 4-hour block arithmetic average).

*{Permitting Note: The nominal capacity of Unit 4 is 600 tons per day and has been determined to be greater than 250 tons per day, thus classifying the unit as a "large MWC unit" under NSPS - 40 CFR 60, Subpart Eb.}*

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 40 CFR 60, Subpart Eb, and Design]

**B. Municipal Waste Combustor & Auxiliary Burners - Unit 4**

8. Maximum Demonstrated Municipal Waste Combustor Unit Load. Unit load means the steam load of the municipal waste combustor measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b). [40 CFR 60.34b(b), 60.51b, 60.53b(b), and 60.58b(I)(6)]
9. Prohibited Fuels:
- a. The facility shall not burn:
    - i. those materials that are prohibited by state or federal law;
    - ii. those materials that are prohibited by this permit;
    - iii. lead acid batteries;
    - iv. hazardous waste;
    - v. nuclear waste;
    - vi. radioactive waste;
    - vii. sewage sludge;
    - viii. explosives;
    - ix. beryllium-containing waste, as defined in 40 CFR 61, Subpart C.
  - b. Further, the facility shall not knowingly burn:
    - i. nickel-cadmium batteries pursuant to Section 403.7192 (3);
    - ii. mercury containing devices and lamps pursuant to Sections 403.7186(2), and (3);
    - iii. untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from similar generators (or sources);
    - iv. segregated loads of biological waste; and
    - v. CCA treated wood.
10. Authorized Fuels. The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below:
- a. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:
    - i. Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
    - ii. Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
    - iii. Wood pallets, clean wood, and land clearing debris;

## B. Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4

- iv. Packaging materials and containers;
  - v. Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
  - vi. Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- b. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 36** of this subsection.
- c. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 36** of this subsection.
- i. Construction and demolition debris.
  - ii. Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.
  - iii. 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.
  - iv. 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.
  - v. Waste materials that:
    - (a) are generated in the manufacture of items in categories (iii) or (iv), above and are functionally or commercially useless (expired, rejected or spent); or
    - (b) 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.
  - vi. Waste materials that contain oil from:
    - (a) the routine cleanup of industrial or commercial establishments and machinery; or
    - (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
  - vii. Used oil and used oil filters. Used oil containing a PCB concentration equal or greater than 50 ppm shall not be burned, pursuant to the limitations of 40 CFR 761.20(e).
- {Permitting note: Waste materials specifically authorized above do not require Department approval.}

**B. Municipal Waste Combustor & Auxiliary Burners - Unit 4**

- viii. 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.

[Rule 62-4.070(1), and (3), F.A.C.]

11. **Segregated Loads:** The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:
- a. well mixed with MSW in the refuse pit; or
  - b. alternately charged with MSW in the hopper.
12. **Combustion Practices:** To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:
- a. comply with good combustion operating practices in accordance with 40 CFR 60.53b;
  - b. install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
  - c. record and maintain the CEMS data in accordance with 40 CFR 60.59b.

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

Natural gas 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.

**MONITORING OF OPERATIONS**

13. **Continuous Steam Flow Monitoring:** Municipal waste combustor unit load means the steam load of the municipal waste combustor unit measured as specified in §60.58b(i)(6). 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 unit loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b).

[Rules 62-204.800(8) and 62-4.070(1), and (3), F.A.C., and 40 CFR 60.53(a), and 60.58b(i)]

**EMISSIONS STANDARDS**

14. Emissions from Unit 4 shall not exceed the emissions standards listed in the following table or in **Specific Conditions 15.-22.** and using the test methods and procedures described in **Specific Conditions 23.-27.**

## B. Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4

Pollutant	Emission Standard/Limit <sup>1</sup>	Lb/hour	Basis
Nitrogen Oxides (NO <sub>x</sub> )	<u>1<sup>st</sup> year of operation:</u>		
	150 ppmvd - 24 hour block average and	79.8	Subpart Eb
	110 ppmvd - 30 day rolling average	58.5	Limit PTE
	<u>Thereafter:</u>		
	110 ppmvd - 24 hour block average and	58.5	BACT
	90 ppmvd - 12 month rolling average	47.9	BACT
Carbon Monoxide (CO)	80 ppmvd - 30-day rolling avg.	25.9	BACT
	100 ppmvd - 4 hr block average	32.4	BACT/Eb
Sulfur Dioxide (SO <sub>2</sub> )	26 ppmvd - 24 hour block average or 80% reduction <sup>2</sup>	19.2	BACT/Eb
Hydrogen Chloride (HCl) <sup>3</sup>	25 ppmvd or 95% reduction <sup>2</sup>	25.4	BACT/Eb
Particulate Matter (PM/PM <sub>10</sub> )	12.0 mg/dscm	3.3	Avoid PSD
Lead (Pb)	140 µg/dscm	NA	Subpart Eb
Mercury (Hg)	28 µg/dscm or 85% reduction <sup>2</sup>	0.022	Avoid PSD/Eb
Cadmium (Cd)	10 µg/dscm	NA	Subpart Eb
Dioxins/Furans <sup>4</sup>	13.0 ng/dscm	3.61 x 10 <sup>-6</sup>	BACT/Eb
Opacity	10 % - 6 minute average	NA	BACT/Eb
Ammonia Slip	@ 195 MMBtu/hr: 10 ppmvd	NA	PM, Opacity.
	@ 260 MMBtu/hr: 15 ppmvd		

<sup>1</sup> All concentration values are corrected to 7% O<sub>2</sub>.  
µg/dscm: Micrograms per dry standard cubic meter  
mg/dscm: Milligrams per dry standard cubic meter  
ng/dscm: Nanograms per dry standard cubic meter  
ppmvd: Part per million dry volume  
NA: not applicable

<sup>2</sup> Whichever standard is less stringent.

<sup>3</sup> HCl is not a BACT pollutant. However, it must be limited together with SO<sub>2</sub> because they both comprise MWC-Acid Gases which has its own PSD threshold.

<sup>4</sup> Dioxins/furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

**B. Municipal Waste Combustor & Auxiliary Burners - Unit 4**

15. Nitrogen Oxides (NO<sub>x</sub>): During the first calendar year of operation, emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 150 ppmvd on a 24-hr daily arithmetic average nor 79.8 lb/hr and shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 30-operating day rolling average.

Thereafter, emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.

{Permitting Note: The owner or operator may request a permit modification of the 90 ppmvd NO<sub>x</sub> standard if ammonia plume or slip issues arise and persist at the facility. The Department reserves the right to make a final determination on any such request.}

16. Carbon Monoxide (CO): Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average.
17. Sulfur Dioxide (SO<sub>2</sub>): Emissions of SO<sub>2</sub> as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved.
18. Hydrogen Chloride (HCl): Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction 95 percent shall be achieved as demonstrated during the required stack test.
19. Mercury Hg: Emissions of Hg shall not exceed 28 µg/dscm or an emissions reduction of 85 percent shall be achieved as demonstrated during the required annual stack test.

During the first two years of operation, emissions of Hg shall not exceed 0.022 lb/hr as measured during quarterly stack tests to provide reasonable assurance that 12-month emissions are less than the applicable PSD threshold of 200 lb/yr.

After the certification of the Hg-CEMS as described in **Specific Condition 35.**, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected during an annual stack test or from the Hg-CEMS.

*{Permitting Note: If the Hg-CEMS is certified prior to the end of the first two years of operation, the permittee may use the CEMS in lieu of the remaining quarterly tests.}*

20. Dioxins/Furans: Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor  $3.61 \times 10^{-6}$  lb/hr.
21. Particulate Matter (PM/PM<sub>10</sub>): Emissions of PM shall exceed neither 12.0 mg/dscm nor 3.3 lb/hr. This will simultaneously demonstrate compliance with the PM<sub>10</sub> limits.
- {Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM<sub>10</sub> and MWC-Metals.}*
22. Opacity: Visible emissions shall not exceed 10 percent opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions test (VE).

## B. Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4

## TEST METHODS AND PROCEDURES

23. Test Methods: Any required stack test shall be performed in accordance with the following methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.
5	Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.
6C	Determination of SO <sub>2</sub> Emissions (Instrumental).
7E	Determination of NO <sub>x</sub> Emissions (Instrumental). NO <sub>x</sub> emissions testing shall be conducted with the air heater operating at the highest heat input possible during the test.
9	Visual Determination of Opacity
10	Measurement of Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.
23	Measurement of Dioxin/Furan Emissions
26 or 26A	Determination of Hydrogen Chloride Emissions
29	Determination of Metals Emissions from Stationary Sources
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source <ul style="list-style-type: none"> <li>This is an EPA conditional test method.</li> <li>The minimum detection limit shall be 1 ppm.</li> </ul>

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "<http://www.epa.gov/ttn/emc/ctm.html>". The other methods are specified in Appendix A of 40 CFR 60, 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. Tests shall be conducted in accordance with the appropriate test method and the applicable requirements specified in this permit, and NSPS Subpart A in 40 CFR 60. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

24. Testing Requirements: Initial tests shall be conducted between 90% and 100% of permitted capacity; otherwise, this permit shall be modified to reflect the true maximum capacity as constructed. Subsequent annual tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]



## B. Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4

25. **Initial Compliance Demonstration:** Initial compliance stack tests shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. In accordance with the test methods specified in this permit, Unit 4 exhaust stack gas shall be tested to demonstrate compliance with the emission standards for NO<sub>x</sub>, CO, SO<sub>2</sub>, HCl, PM/PM<sub>10</sub>, lead, cadmium, Hg, dioxin/furans, and ammonia. The permittee shall provide the Compliance Authority with any other initial emissions performance tests conducted to satisfy vendor guarantees. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
26. **Subsequent Compliance Testing:** Annual compliance stack tests for NO<sub>x</sub>, CO, SO<sub>2</sub>, HCl, PM/PM<sub>10</sub>, lead, cadmium, dioxins/furans, and ammonia shall be conducted during each federal fiscal year (October 1st to September 30th). Data collected from the reference method during the required RATA tests for CO, NO<sub>x</sub>, and SO<sub>2</sub> may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied.
- Prior to the certification of the Hg-CEMS as described in **Specific Condition 35.**, performance tests for Hg emissions shall be conducted quarterly during the first two years of operation then on a calendar year basis to demonstrate compliance with the concentration/reduction standards.
- After the certification of the Hg-CEMS as described in **Specific Condition 35.**, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected from the Hg-CEMS.
- [Rules 62-297.310(7)(a) and (b), and 62-296.416, F.A.C., and 40 CFR 60.8 and 60.58b]
27. **Continuous Compliance:** The permittee shall demonstrate continuous compliance with the CO, NO<sub>x</sub>, and SO<sub>2</sub> emissions standards based on data collected by the certified CEMS. The permittee shall demonstrate continuous compliance with the opacity limit based on data collected by the required COMS. [Rule 62-210.200 (BACT), F.A.C., and 40 CFR 60, Subpart Eb]

**EXCESS EMISSIONS**

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

28. **Department Regulations:** The following conditions apply only to the emissions limits given in **Specific Conditions 14.-22.** that were specified pursuant to BACT or to avoid PSD applicability.
- Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. The Department authorizes three hours in any 24-hour period for this emissions unit. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner.
  - 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.

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B. Municipal Waste Combustor & Auxiliary Burners - Unit 4

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- c. The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown and malfunction) shall be used to report emissions for the Annual Operating Report.

[Rule 62-210.700, F.A.C.]

29. Regulations pursuant to 40 CFR 60, Subpart Eb: The following conditions apply only to the emissions limits given in **Specific Conditions 14.-22.** that were specified pursuant to 40 CFR 60, Subpart Eb.

- a. *The opacity standards* set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c)]
- b. *Startup, Shutdown and Malfunction.* Except as provided by 40 CFR 60.56b, the standards under 40 CFR 60, Subpart Eb, as incorporated in Rule 62-204.800(8)(b), F.A.C., apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence, except as provided in 40 CFR 60.58b(a)(1)(iii). During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).
- i. The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other non-municipal solid waste fuel, and no municipal solid waste is being fed to the combustor.
- ii. Continuous burning is the continuous, semi-continuous, or batch feeding of municipal solid waste for purposes of waste disposal, energy production, or providing heat to the combustion system in preparation for waste disposal or energy production. The use of municipal solid waste solely to provide thermal protection of the grate or hearth during the startup period when municipal solid waste is not being fed to the grate is not considered to be continuous burning.

[40 CFR 60.58b(a)]

- c. *Special Provisions for CO*: For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.

[40 CFR 60.58b(a)(1)(iii)]

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B. Municipal Waste Combustor & Auxiliary Burners - Unit 4

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**CONTINUOUS MONITORING REQUIREMENTS**

30. **CEM Systems:** The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO, NO<sub>x</sub>, Hg and SO<sub>2</sub> from Unit 4 in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this subsection. All continuous monitoring systems other than the Hg CEMS shall be installed and functioning within the required performance specifications by the time of the initial performance tests. The Hg CEMS shall be installed and functioning within the required performance specifications by the end of the second year of operation as specified in **Specific Condition 35**.
- a. *CO Monitor:* The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
  - b. *NO<sub>x</sub> Monitor:* The NO<sub>x</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. The NO<sub>x</sub> monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
    - a. *SO<sub>2</sub> Monitor.* The SO<sub>2</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. The SO<sub>2</sub> monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
    - b. *Diluent Monitor.* A continuous emission monitoring system for measuring the oxygen content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions are monitored shall be installed, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.58b.
  - c. *Mercury Monitor.* A mercury monitor (Hg CEMS) shall be installed, certified and operated as described in **Specific Condition 35**. below.

**B. Municipal Waste Combustor & Auxiliary Burners - Unit 4**

31. **COMS:** A continuous opacity monitoring system (COMS) shall be installed, calibrated, operated, and maintained in exhaust stack in a manner sufficient to demonstrate continuous compliance with the opacity standard specified in this section. Opacity shall be based on a 6-minute block average computed from at least one observation (measurement) every 15 seconds. For the COMS, the 6-minute block averages shall begin at the top of each hour. The COMS shall meet the applicable requirements of 40 CFR 60.58b(c)(8).
32. **CEMS/COMS Certification and Initial Startup:** Each CEMS/COMS, other than the Hg CEMS, required by this permit shall be installed prior to startup. Within 60 calendar days of achieving the maximum production rate, but no later than 180 calendar days after initial startup, the owner or operator shall certify each CEMS/COMS. Upon certification of each CEMS/COMS, the owner or operator shall demonstrate compliance with all applicable standards as specified in this permit. The Hg CEMS shall be installed and functioning within the required performance specifications within the first two years of operation as specified in **Specific Condition 35**. [Rules 62-4.070(3), 62-210.800, 62-210.200(BACT) and 62-297.520, F.A.C.; 40 CFR 60.7(a), 60.13(b), and 60.58b, and Appendix B]
33. **CEMS Data Requirements:** The CEMS shall express the results in the units of the applicable standard and in accordance with 40 CFR 60 subparts A, and Eb.
- a. **Data Exclusion:** Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. Limited amounts of CEMS emissions data (other than mercury data) recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of **Specific Conditions 28. and 29.** in this subsection. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
  - b. **Availability.** Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be reported in the quarterly excess emissions report. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority. The monitor availability requirements of this condition do not apply to the Hg CEMS for the first two years of operation of the CEM system. (This is consistent with the Hg CEMS availability requirement of subpart Eb.)
34. **Continuous Flow Monitor:** A continuous flow monitor shall be installed to determine the stack exhaust flow rate to be used in determining mass emission rates. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6. [Rules 62-210.200(BACT), 62-204.800(8), and 62-4.070(1) and (3), F.A.C.]

## B. Municipal Waste Combustor &amp; Auxiliary Burners - Unit 4

35. Mercury Continuous Emissions Monitoring System (Hg-CEMS): Within 24 months of commencing operation, the owner or operator shall install and certify a mercury CEMS demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. If the vendor provides to the Department verification of certification difficulties such that the CEMS cannot be certified by the certification deadline, and every reasonable effort has been made to do so, the Department shall grant a reasonable extension of time to certify the CEMS. After certification the owner or operator will begin reporting Hg mass emissions data. The owner or operator shall adhere to the calibration drift and quarterly performance evaluation procedures and ongoing data quality assurance procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The mercury monitoring data results shall be submitted quarterly. The CEMS shall only be used as the method of compliance if the owner or operator, at a minimum, meets the requirements of 40 CFR 60.58b(n). Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for missing data substitution and a data calculation approach plans.

[Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C., 40 CFR 60.58b, and, Hillsborough County Environmental Protection Commission Local Ordinance 1-3.53.1(f), *Municipal Solid Waste Incinerators* (for Hg monitoring)]

**REPORTING AND RECORD KEEPING REQUIREMENTS**

36. 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 10.** of this subsection:
- Each segregated load of non-MSW materials, subject to the percentage weight limitations of **Specific Condition 10.**, which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
  - Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.
  - Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month,

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and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.

[Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C.]

37. Stack Test Reports: 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 the specified in Rule 62-297.310(8), F.A.C. [Rule 62-297.310(8), F.A.C.]
38. Malfunction Notifications: If temporarily unable to comply with any condition of the permit due to breakdown of equipment (malfunction) or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. If requested by the Compliance Authority, the owner or operator shall submit a quarterly written report describing the malfunction. [Rules 62-210.700(6) and 62-4.130, F.A.C.]
39. SIP Quarterly Report: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing: equipment malfunctions resulting in excluded CEMS data and/or excess emissions; and the monitor availability of each CEMS. The report shall contain the information and follow the general format specified in 40 CFR 60.7(c), subpart A. [Rules 62-4.070(3), 62-4.130, and 62-210.200(BACT), F.A.C.]
40. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370, F.A.C.]

## C. Lime and Carbon Storage Silos

This section addresses the following emissions units.

E.U. ID No.	Emission Unit Descriptions
108	Pebble Lime Storage Silo - Unit 4
109	Dolomitic Lime Storage Silo - Unit 4
110	Activated Carbon Storage Silo - Unit 4

## EQUIPMENT AND CONTROL TECHNOLOGY

1. Equipment Description: The permittee is authorized to construct one pebble lime storage silo, one dolomitic lime storage silo, and one activated carbon storage silo. Each silo will have a volume of approximately 2,900 cubic feet and will be equipped with its own fabric filter baghouse.
2. Baghouse Controls: Each emissions unit identified for lime and carbon storage shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.015 gr/dscf.

## PERFORMANCE REQUIREMENTS

3. Hours of Operation. These emission units may operate continuously (8,760 hours/year). [Rules 62-4.160(2), and 62-210.228(PTE), F.A.C.]
4. Emissions Limits: The following standards apply to each emissions point of this unit:
  - a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse.
  - b. Fugitive emissions are limited to 10% opacity from any emissions point not controlled by a baghouse.

[Rule 62-070(3), F.A.C.]

{Note: The baghouses are designed to control PM emissions to 0.015 grains/dry standard cubic foot (gr/dscf). The 5% opacity limitation is consistent with this design and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> for all emission points in this emission unit system will be less than 0.5 TPY.}

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

5. Compliance Demonstrations: Each emission point shall be tested to demonstrate initial compliance with the emission standards for visible emissions in accordance with EPA Method 9. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits for each emission point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rules 62-4.070(3), and 62-297.310(7)(a), F.A.C.]
6. Test Methods: Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix C of this permit, and the applicable NESHA provisions.

**C. Lime and Carbon Storage Silos**

<b>Method</b>	<b>Description of Method and Comments</b>
9	Visual Determination of the Opacity of Emissions from Stationary Sources

**REPORTING AND RECORD KEEPING**

7. Baghouse O&M Plan: For each baghouse the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse inspections and maintenance activities shall be recorded in a written log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for this unit. [Rule 62-4.070(3), F.A.C.]
8. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]



# Appendix - I

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

### D. Cooling Tower

This section addresses the following emissions unit.

E.U. ID No.	Emissions Unit Description
111	One Cooling Tower Cell

#### EQUIPMENT

1. Cooling Tower: The permittee is authorized to construct one cooling tower cell with the following nominal design characteristics: a circulating water flow rate of 11,000 gpm; drift eliminators; a drift rate of no more than 0.001 percent of the circulating water flow. [Application; Design]

#### EMISSIONS AND PERFORMANCE REQUIREMENTS

2. Drift Rate: Within 60 days of commencing commercial operation, the permittee shall certify that the cooling tower was constructed to achieve the specified drift rate of no more than 0.001 percent of the circulating water flow rate. [Rule 62-210.200(BACT), F.A.C.]

*{Permitting Note: This work practice standard is established as BACT avoidance for PM/PM<sub>10</sub> emissions from the cooling tower. Based on this design criteria, potential emissions are expected to be less than 0.5 tons of PM per year and less than 0.25 tons of PM<sub>10</sub> per year. Actual emissions are expected to be lower than these rates.}*

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**APPENDIX A - NSPS SUBPART A, IDENTIFICATION OF GENERAL PROVISIONS**

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Emissions units subject to a New Source Performance Standard of 40 CFR 60 are also subject to the applicable requirements of Subpart A, the General Provisions, including:

- § 60.1 Applicability.
- § 60.2 Definitions.
- § 60.3 Units and abbreviations.
- § 60.4 Address.
- § 60.5 Determination of construction or modification.
- § 60.6 Review of plans.
- § 60.7 Notification and Record Keeping.
- § 60.8 Performance Tests.
- § 60.9 Availability of information.
- § 60.10 State Authority.
- § 60.11 Compliance with Standards and Maintenance Requirements.
- § 60.12 Circumvention.
- § 60.13 Monitoring Requirements.
- § 60.14 Modification.
- § 60.15 Reconstruction.
- § 60.16 Priority List.
- § 60.17 Incorporations by Reference.
- § 60.18 General Control Device Requirements.
- § 60.19 General Notification and Reporting Requirements.

Individual subparts may exempt specific equipment or processes from some or all of these requirements. The general provisions may be provided in full upon request.

## APPENDIX BD – BACT DETERMINATION

Refer to the draft BACT proposal discussed in the initial Technical Evaluation for this project and to the Final Determination issued with the Final permit for the rationale regarding the following BACT determination.

Pollutant	Emission Standard/Limit <sup>1</sup>	Lb/hour	Basis
Nitrogen Oxides (NO <sub>x</sub> )	110 ppmvd - 24 hour block average and	58.5	BACT
	90 ppmvd - 12 month rolling average	47.9	BACT
Carbon Monoxide (CO)	80 ppmvd – 30-day rolling avg.	25.9	BACT
	100 ppmvd - 4 hr block average	32.4	BACT/Eb
Sulfur Dioxide (SO <sub>2</sub> )	26 ppmvd - 24 hour block average or 80% reduction <sup>2</sup>	19.2	BACT/Eb
Hydrogen Chloride (HCl) <sup>3</sup>	25 ppmvd or 95% reduction <sup>2</sup>	25.4	BACT/Eb
Dioxins/Furans <sup>4</sup>	13.0 ng/dscm	3.61 x 10 <sup>-6</sup>	BACT/Eb
Opacity	10 % - 6 minute average	NA	BACT/Eb

- <sup>1</sup> All concentration values are corrected to 7% O<sub>2</sub>.  
 µg/dscm: Micrograms per dry standard cubic meter  
 mg/dscm: Milligrams per dry standard cubic meter  
 ng/dscm: Nanograms per dry standard cubic meter  
 ppmvd: Part per million dry volume  
 NA: not applicable

<sup>2</sup> Whichever standard is less stringent.

<sup>3</sup> HCl is not a BACT pollutant. However, it must be limited together with SO<sub>2</sub> because they both comprise MWC-Acid Gases which has its own PSD threshold.

<sup>4</sup> Dioxins/ furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

- Nitrogen Oxides (NO<sub>x</sub>): Emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.
- Carbon Monoxide (CO): Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average.
- Sulfur Dioxide (SO<sub>2</sub>): Emissions of SO<sub>2</sub> as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved.
- Hydrogen Chloride (HCl): Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction 95 percent shall be achieved as demonstrated during the required stack test.
- Dioxins/Furans: Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor 3.61 x 10<sup>-6</sup> lb/hr.  
*{Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM<sub>10</sub> and MWC-Metals}*
- Opacity: Visible emissions shall not exceed 10 percent opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions test (VE).

[40 CFR 60.44b, Rules 62-210.200(BACT), 62-204.800(8), 62-4.070, F.A.C.]

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**APPENDIX Eb - NSPS Subpart Eb, Standards of Performance For Large Municipal Waste Combustors.**

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**Applicability of 40CFR60, 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.

The proposed Hillsborough County Resource Recovery Facility Unit 4 is a new Large Municipal Waste Combustor (Large MWC) because it is a waste combustion unit that is capable of combusting more than 250 tons per day (TPD) of municipal solid waste (MSW).

The rules applicable to Large MWC's are given at 40CFR60, Sections 60.50b through 60.59b. More specifically, Unit 4 is a Mass Burn Waterwall Furnace. The emission limits applicable to this category of MWC are specified by type of combustor in the relevant sections, paragraphs and tables that address individual pollutants including CO, NO<sub>x</sub>, SO<sub>2</sub>, HCl, PM, dioxin/furan, opacity, Cd, Hg, Pb, and various emission monitoring and operational parameters.

Subpart 40CFR60, Subpart Eb was revised on May 10, 2006 just a few days prior to preparation of the draft permit for Unit 4. The Department is revising the Subpart description normally included in this appendix to reconcile the new requirements with the previous ones. An updated and complete Appendix Eb highlighting the requirements applicable to Unit 4 will be included in the final permitting action if and when issued.

The Department has insured that the Permit is at least as stringent as the requirements of the revised Subpart Eb. Particular attention has been given to the revised PM, Pb, Cd and Hg including the use of Hg-CEMS.

The previous version of 40CFR60, Subpart Eb with links to the May 10, 2006 changes is available at:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=e62a6113b2c8fd1679806489b479eab4&rgn=div6&view=text&node=40:6.0.1.1.1.15&idno=40>

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida

Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (X);
  - b. Determination of Prevention of Significant Deterioration (X);
  - c. Compliance with National Emission Standards for Hazardous Air Pollutants ( ); and
  - d. Compliance with New Source Performance Standards (X).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

## Appendix SC - Construction Permit Standard Conditions

Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at this facility.

**EMISSIONS AND CONTROLS**

1. 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 permittee shall notify each Compliance Authority 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; 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 or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

**TESTING REQUIREMENTS**

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

## Appendix SC - Construction Permit Standard Conditions

11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate 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. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. Required Sampling Time. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
  - b. Minimum Sample Volume. Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.[Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables
  - a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
  - b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.[Rule 62-297.310(5), F.A.C.]
15. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. Test Notification: The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide



## Appendix SC - Construction Permit Standard Conditions

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

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

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

**RECORDS AND REPORTS**

19. **Records Retention:** All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. **Annual Operating Report:** The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C]

# Appendix - I

## STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

### NOTICE OF FINAL PERMIT

In the Matter of an  
Application for Permit by:

Hillsborough County  
Solid Waste Management Department  
P.O. Box 1110  
Tampa, Florida 33601

Air Permit No. 0570261-008-AC  
Hillsborough County Resource Recovery Facility  
Carbon Injection Averaging

*Authorized Representative:*

Barry M. Boldissar, Director

Enclosed is Final Air Permit No. 0570261-008-AC, which authorizes the implementation of an *hourly averaging method* to calculate carbon mass feed rate levels at the facility. The equipment is operated at the Hillsborough County Resource Recovery Facility, 350 N. Falkenburg Road, Tampa, in Hillsborough County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.).

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

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Permit (including the "Final Permit") was sent by electronic mail (with received receipt requested) before the close of business on 3/26/07 to the person(s) listed:

Barry M. Boldissar, Hillsborough County [boldissarb@hillsboroughcounty.org](mailto:boldissarb@hillsboroughcounty.org)

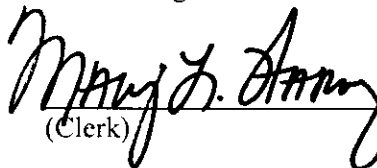
Mara Nasca, Southwest District Office [mara.nasca@dep.state.fl.us](mailto:mara.nasca@dep.state.fl.us)

Jason M. Gorrie, P.E., CDM [GorrieJM@CDM.com](mailto:GorrieJM@CDM.com)

Gregg Worley, EPA Region 4 [worley.gregg@epa.gov](mailto:worley.gregg@epa.gov)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

 3/26/07  
(Clerk) (Date)



# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

## PERMITTEE

Hillsborough County Solid Waste Management Department  
P.O. Box 1110  
Tampa, Florida 33601

*Authorized Representative:*

Barry M. Boldissar, Director

Air Permit No. 0570261-008-AC  
Hillsborough County Resource  
Recovery Facility  
Facility ID No. 0570261  
SIC No. 4953  
Carbon Injection Averaging  
Permit Expires: May 31, 2007

## PROJECT AND LOCATION

This permit authorizes the implementation of an *hourly averaging method* to calculate carbon mass feed rate levels at the facility. The equipment is installed at the Hillsborough County Resource Recovery Facility, which is located in Hillsborough County at 350 N. Falkenburg Road, Tampa, Florida.

## STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and Title 40, Parts 60 and 63 of the Code of Federal Regulations (CFR). The permittee is authorized to operate the equipment 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).

## CONTENTS

- Section 1. General Information
- Section 2. Administrative Requirements
- Section 3. Emissions Units Specific Conditions
- Section 4. Appendices

*Joseph Kahn for* 3/26/07  
Joseph Kahn, Director (Date)  
Division of Air Resource Management

## FINAL DETERMINATION

### PERMITTEE

Hillsborough County Solid Waste Management Department  
P.O. Box 1110  
Tampa, Florida 33601

### PERMITTING AUTHORITY

Florida Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation, Permitting South Section  
2600 Blair Stone Road, MS 5505  
Tallahassee, Florida 32399-2400

### PROJECT

Air Permit No. 0570261-008-AC

Hillsborough County Resource Recovery Facility

This permit authorizes the implementation of an *hourly averaging method* to calculate carbon mass feed rate levels at the facility. The equipment is installed at the Hillsborough County Resource Recovery Facility, which is located in Hillsborough County at 350 N. Falkenburg Road, Tampa, Florida. It also establishes this change as an applicable Title V Air Operation Permit condition.

### NOTICE AND PUBLICATION

The Department distributed an "Intent to Issue Permit" package on October 27, 2006. The applicant published the "Public Notice of Intent to Issue" in the Tampa Tribune on March 1, 2007. No petitions for administrative hearings or extensions of time to petition for an administrative hearing were filed. No comments were received from the Applicant, EPA Region 4, or the public at large on the Intent to Issue the Air Construction Permit package.

### CONCLUSION

The final action of the Department is to issue the permit with an-adjusted expiration date.

**FACILITY AND PROJECT DESCRIPTION**

The Hillsborough County Solid Waste Management Department operates the Hillsborough County Resource Recovery Facility, which is a Refuse System (SIC No. 4953). The plant currently consists of three municipal waste combustors having a nominal design rate capacity of 400 tons of municipal solid waste (MSW) per day, 150 million British thermal units (MMBtu) per hour, and 94,270 pounds steam per hour, with MSW having a heating value of 4,500 Btu per pound. The facility has a design net steam energy of 1158 Btu per pound. Natural gas fired auxiliary burners and combustion control systems, with continuous monitoring devices for combustion and process parameters and sulfur dioxide, nitrogen oxides and carbon monoxide emissions, are installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber, a fabric filter, an activated carbon injection system, and a selective non-catalytic reduction system. The facility also has an ash building and handling system, two lime storage silos, and an activated carbon storage silo.

This permit authorizes the implementation of an *hourly averaging method* to calculate carbon mass feed rate levels at the facility.

E.U. ID No.	Emission Unit Descriptions
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 3

**REGULATORY CLASSIFICATION**

Title III: The facility IS a potential major source of hazardous air pollutants (HAPs).

Title IV: The facility DOES NOT OPERATE existing units subject to the Acid Rain provisions of the Clean Air Act (CAA).

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

PSD: The facility IS a PSD-major facility in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility OPERATES units subject to New Source Performance Standards in 40 CFR 60.

NEHSAP: The facility DOES NOT OPERATE units subject to National Emissions Standards for HAPs in 40 CFR 63.

**RELEVANT DOCUMENTS**

The following relevant documents are not a part of this permit, but helped form the basis for this permitting action: the permit application and additional information received to make it complete; the draft permit package including the Department's Technical Evaluation and Preliminary Determination; publication and comments; and the Department's Final Determination.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

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1. Permitting Authority: The Permitting Authority for this project is the Bureau of Air Regulation in the Division of Air Resource Management of the Department. The mailing address for the Bureau of Air Regulation is 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office. The mailing address and phone number of the Southwest District Office is: 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926, 813/632-7600.
3. Appendices: The following Appendix is attached as part of this permit: Appendix GC (General Conditions).
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.
5. New or Additional Conditions: 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. [Rule 62-4.080, F.A.C.]
6. Modifications: No emissions unit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
7. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Bureau of Air Regulation with copies to each Compliance Authority.  
[Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

## Appendix - I

### SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

The following existing emissions units are affected by this permit:

E.U. ID No.	Emission Unit Descriptions
001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 1
002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 2
003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 3

Based on this permitting action, these emissions units are subject to the following additional specific condition:

1. Activated Carbon Injection. The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit, or the dioxin/furan emission limits, or the dioxin/furan emission level specified in 40 CFR 60.58b(g)(5)(iii), shall follow the procedures specified in paragraphs (1) through (3).
  - (1) During the performance tests for dioxins/furans and mercury, as applicable, the owner or operator shall estimate an average carbon mass feed rate based on carbon injection system operating parameters such as the screw feeder speed, hopper volume, hopper refill frequency, or other parameters appropriate to the feed system being employed, as specified in paragraphs (i) and (ii).
    - (i) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for mercury emissions and each subsequent performance test for mercury emissions.
    - (ii) An average carbon mass feed rate in kilograms per hour or pounds per hour shall be estimated during the initial performance test for dioxin/furan emissions and each subsequent performance test for dioxin/furan emissions.
  - (2) During operation of the affected facility, the carbon injection system operating parameter(s) that are the primary indicator(s) of the carbon mass feed rate (e.g., screw feeder setting) shall be averaged over a block 8-hour period, and the 8-hour block average must equal or exceed the level(s) documented during the performance tests specified under paragraphs (1)(i) and (1)(ii).
  - (3) The owner or operator of an affected facility shall estimate the total carbon usage of the plant (kilograms or pounds) for each calendar quarter by two independent methods, according to the procedures in paragraphs (i) and (ii).
    - (i) The weight of carbon delivered to the plant.
    - (ii) Estimate the average carbon mass feed rate in kilograms per hour or pounds per hour for each hour of operation for each affected facility based on the parameters specified under paragraph (1), and sum the results for all affected facilities at the plant for the total number of hours of operation during the calendar quarter.

[40 CFR 60.38b and 40 CFR 60.58b, as amended on May 10, 2006.]

## SECTION 4. APPENDIX GC – GENERAL CONDITIONS

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

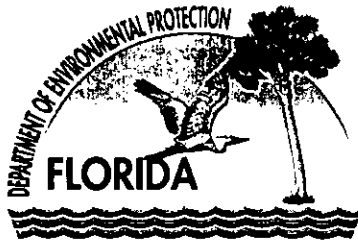
8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.



## SECTION 4. APPENDIX GC – GENERAL CONDITIONS

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (not applicable to project);
  - b. Determination of Prevention of Significant Deterioration (not applicable to project); and
  - c. Compliance with New Source Performance Standards.
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



## Florida Department of Environmental Protection

Bob Martinez Center  
2600 Blainstone Road  
Tallahassee, Florida 32399-2400

Charlie Crist  
Governor  
Jeff Kottkamp  
Lt. Governor  
Michael W. Sole  
Secretary

September 7, 2007

*Electronically Sent – Received Receipt Requested*

[boldissarb@hillsboroughcounty.org](mailto:boldissarb@hillsboroughcounty.org)

Mr. Barry M. Boldissar, Director  
Hillsborough County Department of Solid Waste Management  
601 East Kennedy Boulevard  
Tampa, Florida 33602

Re: Hillsborough County Resource Recovery Facility  
DEP File No. 0570261-009-AC (PSD-FL-369A)  
Installation of the Covanta Low NO<sub>x</sub> Process in Unit No. 4

Dear Mr. Boldissar:

The Department is in receipt of your modification request submitted by Covanta Inc to modify the previously issued air construction permit to construct Unit No. 4. The request is to allow installation of the Covanta Low NO<sub>x</sub> Process. The request is acceptable to the Department and the permit is hereby modified. The changes to the existing sections of the original construction permit are shown in strikethrough (~~strikethrough~~) and double-underlined format as follows:

### PROJECT

The permittee, Hillsborough County, proposes to construct a new 600 ton per day (TPD) municipal waste combustor referred to as Unit 4 at the existing facility. The nominal design rate capacity is 600 tons municipal solid waste (MSW) per day, with a nominal heat input of 288 million Btu (mmBtu) per hour and nominal steam production of ~~163,780~~ 170,790 pounds per hour (maximum ~~190,000~~ 200,000 lb/hr). The new unit will be equipped with two natural gas-fired auxiliary burners, each with a nominal heat input of 50 mmBtu per hour. The new unit will be installed at the existing site. The flue for the new boiler is already encased in the existing stack. With the addition of the fourth unit, the existing 220 feet tall stack will contain four active flue streams. With the addition of this unit, the site capacity will increase from approximately 1,200 TPD to 1,800 TPD. The site's steam electric generating capacity will be increased from 39 megawatts (MW) to 47 MW (nominal).

The existing ash building and handling system will be expanded. Two new lime storage silos and a new activated carbon storage silo will be constructed for Unit 4.

# Appendix - I

Mr. Barry Boldissar

September 7, 2007

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Unit 4 will be a mass burn unit incorporating much of the same technology as the existing units including: combustion controls; combustion on a reverse-reciprocating grate system; ash discharge system; energy recovery through the furnace waterwall, superheater and economizers; electrical power production; and a pollution control system consisting of a spray dryer, fabric filter, activated carbon injection system and a selective non-catalytic reduction (SNCR). In addition, the new unit will incorporate the Covanta LN system for strategic combustion air management or flue gas recirculation for energy efficiency and pollution reduction.

## SECTION III. EMISSION UNIT SPECIFIC CONDITIONS

### B. Municipal Waste Combustor & Auxiliary Burners - Unit 4

#### Emissions Unit 107

**Description:** Emissions unit 107 consists of a nominal 600 TPD mass-burn municipal waste combustor with two nominal 50 mmBtu/hr natural gas-fired auxiliary burners. The project will also include: a new nominal 17 MW steam turbine-electrical generator; expansion of the ash handling and refuse building; a new transformer yard; a new lime silo; an ammonia or urea reagent storage tank; and a new settling basin. Exhaust from the new unit will be directed to a separate flue already constructed within the existing 220 foot stack.

**Steam Capacity:** The nominal steam production rate is 163,780 pounds of steam per hour. The maximum steam production limit is ~~190,000~~ 200,000 lb steam/hr (4-hour block average). The nominal heat input is approximately 288 mmBtu/hour.

**Controls:** Controls consist of: efficient combustion on the grate and furnace; strategic management of combustion air (Covanta LN system) or flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) to enhance mercury (Hg) removal; and selective non-catalytic reduction (SNCR) by ammonia or urea injection for nitrogen oxides (NO<sub>x</sub>) control.

**Stack Parameters:** The Department may require the permittee to perform additional air dispersion modeling should the actual specified stack dimensions change. The following summarizes the exhaust characteristics:

<u>Fuel</u>	<u>Heat Input Rate</u>	<u>Exhaust Temp., °F</u>	<u>Flow Rate ACFM</u>
MSW	~288 mmBtu/hour	270° F	~125,000

**Continuous Monitors:** The unit is equipped with continuous emissions monitoring systems (CEMS) to measure and record NO<sub>x</sub>, carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), and mercury (Hg) as well as instrumentation to monitor steam flow, flue gas flow rate, oxygen, temperature, and opacity.

## Appendix - I

Mr. Barry Boldissar

September 7, 2007

Page 3 of 4

### Specific Condition No. 4

**Control Equipment:** The owner or operator shall install, operate and maintain the following air pollution control equipment consistent with the manufacturers' specifications.

**NO<sub>x</sub> Controls:** A combustion air management system (Covanta LN system) or flue gas recirculation system (FGR) will be used to limit NO<sub>x</sub> formation. An ammonia or urea-based selective non-catalytic reduction (SNCR) system will be employed for the destruction of NO<sub>x</sub>.

**MWC Acid Gas Control:** A spray dryer (SD) with lime injection will be installed to absorb MWC acid gases.

**MWC Organics and Mercury (Hg):** An activated carbon injection (ACI) system will be installed to adsorb MWC organics and mercury (Hg).

**Particulate Matter (PM/PM<sub>10</sub>):** A fabric filter (FF) baghouse, including absorption/adsorption reagent, will be installed to remove particulate matter.

[BACT Determination; and Rules 62-4.070(1), and (3), F.A.C.]

### Specific Condition No.7

**Permitted Capacity.** The maximum steam production rate shall not exceed ~~190,000~~ 200,000 pounds steam per hour (on a 4-hour block arithmetic average).


*{Permitting Note: The nominal capacity of Unit 4 is 600 tons per day and has been determined to be greater than 250 tons per day, thus classifying the unit as a "large MWC unit" under NSPS - 40 CFR 60, Subpart Eb.}*

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; 40 CFR 60, Subpart Eb; and Design]

A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

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

Executed in Tallahassee, Florida.



Joseph Kahn, Director  
Division of Air Resources  
Management

## Appendix - I

Mr. Barry Boldissar  
September 7, 2007  
Page 4 of 4

### CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Permit Modification and all copies were sent electronically (with Received Receipt) before the close of business on **September 7, 2007** to the persons listed below:

Barry M. Boldissar, Hillsborough County DSWM: [boldissarb@hillsboroughcounty.org](mailto:boldissarb@hillsboroughcounty.org)

Thomas Smith, Hillsborough County DSWM: [smitht@hillsboroughcounty.org](mailto:smitht@hillsboroughcounty.org)

Jim Little, U.S. EPA Region 4, Atlanta GA: [little.james@epa.gov](mailto:little.james@epa.gov)

Katy Forney, U.S. EPA Region 4, Atlanta GA: [forney.kathleen@epa.gov](mailto:forney.kathleen@epa.gov)

Mike Halpin, DEP Siting Office: [mike.halpin@dep.state.fl.us](mailto:mike.halpin@dep.state.fl.us)

Mara Nasca, DEP SWD: [mara.nasca@dep.state.fl.us](mailto:mara.nasca@dep.state.fl.us)

Jerry Campbell, Hillsborough County EPC: [Campbell@epchc.org](mailto:Campbell@epchc.org)

Joseph Treshler, P.E., Covanta: [joseph\\_treshler@covantaenergy.com](mailto:joseph_treshler@covantaenergy.com)

Steve Goff, Covanta: [sgoff@covantaenergy.com](mailto:sgoff@covantaenergy.com)

Brian Bahor, Covanta: [brian\\_bahor@covantaenergy.com](mailto:brian_bahor@covantaenergy.com)

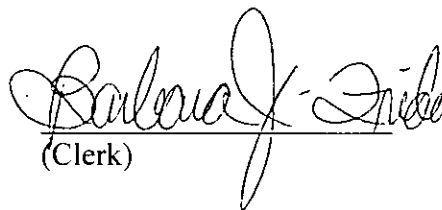
Peter Young, Covanta: [pyoung@covantaenergy.com](mailto:pyoung@covantaenergy.com)

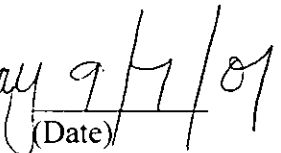
Dan Strobridge, CDM: [strobridgede@cdm.com](mailto:strobridgede@cdm.com)

Clerk Stamp

#### **FILING AND ACKNOWLEDGMENT**

**FILED**, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

  
(Clerk)

  
(Date)



# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

## NOTICE OF FINAL AIR PERMIT

*Sent by Electronic Mail – Received Receipt Requested*

Barry M. Boldissar, Director  
Hillsborough County Solid Waste Management Department  
Hillsborough County Resource Recovery Facility  
601 East Kennedy Boulevard  
Tampa, Florida 33602

Air Permit No. 0570261-010-AC  
PSD-FL-369B  
Hillsborough County Resource  
Recovery Facility  
New Wet Scrubber System  
Hillsborough County, Florida

Dear Mr. Boldissar:

Enclosed is the final air construction permit revision, which authorizes the installation of a new wet scrubber system to control ventilation air on the expanded ash handling building. The proposed work will be conducted at the existing Hillsborough County Resource Recovery Facility, which is located in Hillsborough County at 350 North Falkenburg Road in Tampa, Florida. As noted in the attached Final Determination, several changes and clarifications were made to the draft permit. This final permit is issued pursuant to Chapter 403, Florida Statutes.

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

Executed in Tallahassee, Florida.

A handwritten signature in dark ink, appearing to read "Trina Vielhauer".

Trina Vielhauer, Chief  
Bureau of Air Regulation

TLV/jfk/tm


**CERTIFICATE OF SERVICE**

The undersigned duly designated deputy agency clerk hereby certifies that this Notice of Final Air Permit package (including the Final Determination and Final Permit with Appendices) was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on 9/30/09 to the persons listed below.

Mr. Barry M. Boldissar, Hillsborough County DSWM (boldissarb@hillsboroughcounty.org)  
Mr. Glenn Hoag, Covanta Hillsborough, Inc. (ghoag@covantaenergy.com)  
Mr. Jason Gorrie, CDM (jgorrie@covantaenergy.com)  
Mr. William Crellin, Jr., CDM (crellinwr@cdm.com)  
Mr. Robert A. Velasco, P.E., BCEE, CDM (velascora@cdm.com)  
Ms. Cindy Zhang-Torres, DEP Southwest District Office (cindy.zhang-torres@dep.state.fl.us)  
Ms. Dianna Lee, Hillsborough County EPC (lee@epchc.org)  
Mr. Noel Morera, Hillsborough County EPC (morera@epchc.org)  
Mr. Mike Halpin, DEP Siting Office (mike.halpin@dep.state.fl.us)  
Ms. Kathleen Forney, EPA Region 4 (forney.kathleen@epa.gov)  
Ms Ana M. Oquendo, EPA Region 4 (oquendo.ana@epa.gov)  
Ms Heather Abrams, EPA Region 4 (abrams.heather@epa.gov)  
Ms. Vickie Gibson, DEP BAR Reading File (victoria.gibson@dep.state.fl.us)

Clerk Stamp

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

  
\_\_\_\_\_  
(Clerk)

9/30/09  
(Date)





# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

## PERMITTEE

Hillsborough County  
Solid Waste Management Department  
601 E. Kennedy Boulevard  
Tampa, FL 33602

*Authorized Representative:*  
Mr. Barry M. Boldissar, Director

Air Permit No. PSD-FL-369B  
Project No. 0570261-010-AC  
Expires: October 1, 2010  
Hillsborough County Resource Recovery Facility  
Facility ID No. 0570261  
Air Construction Permit for Unit 4 Expansion  
Revision, Wet Scrubber for Ash Building

## PROJECT AND LOCATION

This permit authorizes the construction of a nominal 600 ton per day municipal waste combustor referred to as Unit 4 at the existing facility. For this project, the permit is revised to include a new wet dust collection system for expanded ash handling building (EU-100). The existing Hillsborough County Resource Recovery Facility is a refuse system categorized by Standard Industrial Classification No. 4953. The existing facility is located in Hillsborough County at 350 North Falkenburg Road in Tampa, Florida 33619. The UTM coordinates are Zone 17, 368.2 kilometers (km) East, and 3092.7 km North.

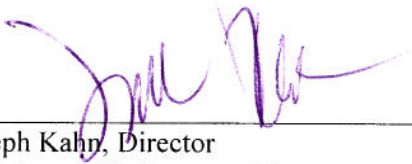
## STATEMENT OF BASIS

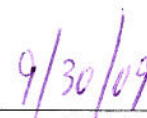
This air pollution construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department. The existing facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. This revision is a minor modification of the original PSD air construction permit.

## CONTENTS

- Section 1. Facility Information
- Section 2. Administrative Requirements
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

Executed in Tallahassee, Florida

  
\_\_\_\_\_  
Joseph Kahn, Director  
Division of Air Resource Management

  
\_\_\_\_\_  
9/30/09  
(Date)



## SECTION 1. FACILITY INFORMATION

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### FACILITY DESCRIPTION

The existing Hillsborough County Resource Recovery Facility is located in Hillsborough County at 350 North Falkenburg Road, Tampa, Florida. The existing facility consists of three municipal waste combustors (MWC), each having a nominal design rate capacity of 400 tons municipal solid waste (MSW) per day, 150 million British thermal units (MMBtu) per hour (excluding 9.9 MMBtu per hour from the combustion air preheaters) and 94,270 pounds steam per hour based on MSW with an average heating value of 4,500 Btu per pound. The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation. The Hillsborough County Resource Recovery Facility began operation in 1987.

### PROJECT DESCRIPTION

#### Original Permit No. PSD-FL-369

Hillsborough County proposes to construct a new 600 tons per day (TPD) Municipal Waste Combustor referred to as Unit 4 at the existing facility. The nominal design rate capacity is 600 tons MSW per day, with a nominal heat input of 288 MMBtu per hour and nominal steam production of 163,780 pounds per hour (maximum 200,000 lb/hr). The new unit will be equipped with two natural gas-fired auxiliary burners, each with a nominal heat input of 50 MMBtu per hour. The new unit will be installed at the existing site. The flue for the new boiler is already encased in the existing stack. With the addition of the fourth unit, the existing 220 feet tall stack will contain four active flue streams. With the addition of this unit, the site capacity will increase from approximately 1,200 TPD to 1,800 TPD. The site's steam electric generating capacity will be increased from 39 MW to 47 MW (nominal).

Unit 4 will be a mass burn unit incorporating much of the same technology as the existing units including: combustion on a reverse-reciprocating grate system; ash discharge system; energy recovery through the furnace waterwall, superheater and economizers; electrical power production; and a pollution control system consisting of a spray dryer, fabric filter, activated carbon injection system and a selective non-catalytic reduction (SNCR). In addition, the new unit will incorporate flue gas recirculation for energy efficiency and pollution reduction. The existing ash building and handling system will be expanded. Two new lime storage silos and a new activated carbon storage silo will be constructed for Unit 4.

#### Revised Permit No. PSD-FL-369A

This project revised:

- Specific Condition No. 4 for EU-107 to authorize the option of using the strategic management of combustion air (Covanta LN<sup>TM</sup> system) to limit NO<sub>x</sub> formation and use an alternative ammonia reagent storage tank for the destruction of NO<sub>x</sub>; and
- Specific Condition No. 7 to authorize an increase in the maximum steam production rate from 190,000 to 200,000 pounds per hour.

#### Revised Permit No. PSD-FL-369B

This current project authorizes installation of a new wet scrubber system to control particulate emissions from the ash building (EU-100) exhaust system. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is a modification of the original PSD permit; however, the project to add the new wet scrubber maintains annual emissions increases below the PSD significant emissions rates for particulate matter (PM), particulate matter with a mean particle diameter of 10 microns or less (PM<sub>10</sub>), and MWC metals.

### REGULATORY CLASSIFICATIONS

*Section 111, Clean Air Act, Standards of Performance for New Stationary Sources (NSPS):* The new unit is a large Municipal Waste Combustor (MWC) unit subject to 40 CFR 60, Subpart Eb - Standards of Performance

## SECTION 1. FACILITY INFORMATION

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for New Stationary Sources and Emission Guidelines for Municipal Waste Combustors.

*Section 112, Clean Air Act, Hazardous Air Pollutants (HAPs):* The facility is a major source of HAPs. The maximum achievable control technology (MACT) requirements typically specified in the National Emissions Standards for Hazardous Air Pollutants (NESHAP) for this industry were included in 40 CFR 60, Subpart Eb as required by Section 169, Clean Air Act, Solid Waste Combustion.

*Title IV, Acid Rain:* The facility operates no units subject to the acid rain provisions of the Clean Air Act.

*Title V, Clean Air Act, Permits:* The facility is a Title V or “Major Source” of air pollution because the potential emissions of at least one regulated pollutant exceed 100 tons per year or because it is a Major Source of HAPs. Regulated pollutants include pollutants such as carbon monoxide (CO), nitrogen oxides (NO<sub>x</sub>), particulate matter (PM/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), and volatile organic compounds (VOC).

*Part C, Clean Air Act, Prevention of Significant Deterioration (PSD):* The facility is located in an area that is designated as “attainment”, “maintenance”, or “unclassifiable” for each pollutant subject to a National Ambient Air Quality Standard. The facility is classified as a “municipal incinerator capable of charging more than 250 tons of refuse per day”, which is one of the facility categories with the lower PSD applicability threshold of 100 tons per year. Potential emissions of at least one regulated pollutant exceed 100 tons per year, therefore the facility is classified as a “Major Stationary Source” with respect to Rule 62-212.400 F.A.C.

*Stationary Sources - Emission Standards in Chapter 62-296, F.A.C.:* The facility operates one or more units subject to emission standards. The new Unit 4 is subject to the mercury standard in Rule 62-296.416, F.A.C. The numerical mercury emissions limit under state Rule 62-296.416, F.A.C., is more stringent than the NSPS emissions limit.

*Reasonable Available Control Technology (RACT):* The entire State of Florida is either classified as attainment or considered to be in attainment (i.e., unclassifiable) with respect to the NAAQS for all pollutants. However, the facility is located in a maintenance area for ozone, particulate matter and lead. The VOC and NO<sub>x</sub> RACT provisions do not apply. The new unit has operations that are subject to PM RACT.

*Siting:* The facility was originally certified under PA83-19 pursuant to the power plant siting provisions of Chapter 62-17, F.A.C.

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

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1. Permitting Authority: All documents related to applications for permits to construct, modify or operate this emissions unit shall be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (DEP), at 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 and phone number 850/488-0114. Copies of these documents shall be submitted to the Compliance Authority.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications should be submitted to the compliance authority. The compliance authority is the Department's Southwest District Office at 13051 N. Telecom Parkway, Temple Terrace, FL 33637-0926.
3. Appendices: The owner and operator shall comply with the applicable requirements in Appendix A (NSPS Subpart A, Identification of General Provisions); Appendix BD (BACT Determination); Appendix Eb (NSPS Subpart Eb, Standards of Performance for Large Municipal Waste Combustors); Appendix GC (General Conditions); and Appendix SC (Standard Conditions). [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403 of the Florida Statutes (F.S.); Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.); and the Title 40, Parts 51, 52, 60, 63, 72, 73 and 75 of the Code of Federal Regulations (CFR), adopted by reference in Rule 62-204.800, F.A.C. The terms used in this permit have specific meanings as defined in the applicable chapters of the Florida Administrative Code. 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. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Construction and Expiration: The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. In conjunction with an extension of the 18-month period to commence or continue construction (or to construct the project in phases), the Department may require the permittee to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for emissions units regulated by the project. For good cause, the permittee may request that this PSD air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, 62-210.300(1), and 62-212.400(6)(b), F.A.C.]
6. New or Additional Conditions: 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. [Rule 62-4.080, F.A.C.]
7. Source Obligation.
  - (a) Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between constructions of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.
  - (b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall

## SECTION 2. ADMINISTRATIVE REQUIREMENTS

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apply to the source or modification as though construction had not yet commenced on the source or modification

- (c) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

- 8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
- 9. Title V Permit: This permit authorizes construction of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emission units. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Bureau of Air Regulation and a copy to the Compliance Authority.

[Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

**SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS**

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**A. Municipal Waste Combustor & Auxiliary Burners – Unit 4**

This section addresses the following group of emissions units.

<b>EU No.</b>	<b>Emission Unit Descriptions</b>
112	Expanded Ash Handling Building with Wet Scrubbing System
107	Nominal 288 MMBtu/hr Municipal Waste Combustor & Auxiliary Burners - Unit 4
108	Pebble Lime Storage Silo - Unit 4
110	Activated Carbon Storage Silo - Unit 4
111	Cooling Tower Cell

**CONSTRUCTION ACTIVITIES**

1. Unconfined Particulate Matter Emissions: Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter include the following requirements consistent with current practices by the permittee:

All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. The unpaved areas of the facility will be maintained and either sodded or landscaped. Hoods, fans, filters, or similar equipment will be used to contain, capture, and/or vent particulate matter. The conveyor systems of the facility will be enclosed or covered. The ash will be wetted before being stored in the ash handling building. 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 or leaving) shall be under negative air pressure. [Rule 62-296.320(4)(c)2., F.A.C.; and, items proposed by the applicant.]

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

## B. Municipal Waste Combustor &amp; Auxiliary Burners – Unit 4

This section of the permit addresses the following emissions units.

**EU No. 107**

**Description:** Emissions unit 107 consists of a nominal 600 TPD mass-burn municipal waste combustor (MWC) with two nominal 50 mmBtu/hr natural gas-fired auxiliary burners. The project will also include: a new nominal 17 megawatt (MW) steam turbine-electrical generator; expansion of the ash handling and refuse building; a new transformer yard; a new lime silo; a urea reagent storage tank; and a new settling basin. Exhaust from the new unit will be directed to a separate flue already constructed within the existing 220 foot stack.

**Steam Capacity:** The nominal steam production rate is 163,780 pounds of steam per hour. The maximum steam production limit is 190,000 lb steam/hr (4-hour block average). The nominal heat input is approximately 288 mmBtu/hour.

**Controls:** Controls consist of: efficient combustion on the grate and furnace; flue gas recirculation (FGR); a spray dryer/absorber in conjunction with a fabric filter (SD/FF) for control of acid gases, particulate matter, and most metals; activated carbon injection (ACI) to enhance mercury (Hg) removal; selective non-catalytic reduction (SNCR) by ammonia or urea injection for NO<sub>x</sub> control.

**Stack Parameters:** The Department may require the permittee to perform additional air dispersion modeling should the actual specified stack dimensions change. The following summarizes the exhaust characteristics:

<u>Fuel</u>	<u>Heat Input Rate</u>	<u>Exhaust Temp., °F</u>	<u>Flow Rate ACFM</u>
MSW	~288 mmBtu/hour	270° F	~125,000

**Continuous Monitors:** The unit is equipped with continuous emissions monitoring systems (CEMS) to measure and record NO<sub>x</sub>, CO, SO<sub>2</sub>, and Hg as well as instrumentation to monitor steam flow, flue gas flow rate, oxygen, temperature, and opacity.

**APPLICABLE STANDARDS AND REGULATIONS**

1. **BACT Determinations:** The emission unit addressed in this section is subject to a Best Available Control Technology (BACT) determination for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), MWC acid gases (SO<sub>2</sub>+HCl); SO<sub>2</sub> as an individual pollutant, and MWC organics (dioxin/furan). [Rule 62-212.400, F.A.C.]
2. **NSPS Requirements:** The municipal waste combustor and auxiliary burners shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(7)(b), F.A.C. The Department determines that the BACT emissions performance requirements are as stringent as or more stringent than the limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts.
  - (a) **Subpart A, General Provisions**, including:
    - 40 CFR 60.7, Notification and Record Keeping
    - 40 CFR 60.8, Performance Tests
    - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
    - 40 CFR 60.12, Circumvention
    - 40 CFR 60.13, Monitoring Requirements
    - 40 CFR 60.19, General Notification and Reporting Requirements
  - (b) **Subpart Eb, Standards of Performance for Large Municipal Waste Combustors**

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

### B. Municipal Waste Combustor & Auxiliary Burners – Unit 4

3. Emission Standards for Stationary Sources: This unit has a charging rate of 40 tons per day or more and is subject to the requirements of Stationary Sources – Emission Standards for Waste-To-Energy Facilities of Rule 62-296.416, F.A.C.

#### AIR POLLUTION CONTROL TECHNOLOGY

4. Control Equipment: The owner or operator shall install, operate and maintain the following air pollution control equipment consistent with the manufacturers' specifications.

*NO<sub>x</sub> Controls*: A flue gas recirculation system (FGR) will be used to limit NO<sub>x</sub> formation. A urea-based selective non-catalytic reduction (SNCR) system will be employed for the destruction of NO<sub>x</sub>.

*MWC Acid Gas Control*: A spray dryer (SD) with lime injection will be installed to absorb MWC acid gases.

*MWC Organics and Mercury (Hg)*: An activated carbon injection (ACI) system will be installed to adsorb MWC organics and Hg.

*Particulate Matter (PM/PM<sub>10</sub>)*: A fabric filter (FF) baghouse, including absorption/adsorption reagent, will be installed to remove particulate matter.

[BACT Determination, and Rules 62-4.070(1), and (3), F.A.C.]

#### OPERATIONAL DESCRIPTIONS AND LIMITATIONS

5. Nameplate: The combustor (boiler) shall have a metal name plate affixed in a conspicuous place on the shell showing the manufacturer, model number, type of waste, and rated capacity. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

6. Hours of Operation: This emissions unit may operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

7. Permitted Capacity: The maximum steam production rate shall not exceed 190,000 pounds steam per hour (on a 4-hour block arithmetic average).

*{Permitting Note: The nominal capacity of Unit 4 is 600 tons per day and has been determined to be greater than 250 tons per day, thus classifying the unit as a "large MWC unit" under NSPS - 40 CFR 60, Subpart Eb.}*

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., 40 CFR 60, Subpart Eb, and Design]

8. Maximum Demonstrated Municipal Waste Combustor Unit Load: Unit load means the steam load of the municipal waste combustor measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load." Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b). [40 CFR 60.34b(b), 60.51b, 60.53b(b), and 60.58b(I)(6)]

9. Prohibited Fuels:

a. The facility shall not burn:

- i. those materials that are prohibited by state or federal law;
- ii. those materials that are prohibited by this permit;
- iii. lead acid batteries;
- iv. hazardous waste;

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

### B. Municipal Waste Combustor & Auxiliary Burners – Unit 4

- v. nuclear waste;
- vi. radioactive waste;
- vii. sewage sludge;
- viii. explosives; and
- ix. beryllium-containing waste, as defined in 40 CFR 61, Subpart C.

b. Further, the facility shall not knowingly burn:

- i. nickel-cadmium batteries pursuant to Section 403.7192 (3);
- ii. mercury containing devices and lamps pursuant to Sections 403.7186(2), and (3);
- iii. untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from similar generators (or sources);
- iv. segregated loads of biological waste; and
- v. Chromated Copper Arsenate (CCA) treated wood.

10. Authorized Fuels: The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995). Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below:

- a. Subject to the conditions and limitations contained in this permit, the following other solid waste may be used as fuel at the facility:
  - i. Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
  - ii. Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste, or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;
  - iii. Wood pallets, clean wood, and land clearing debris;
  - iv. Packaging materials and containers;
  - v. Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
  - vi. Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.
- b. Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 36.** of this subsection.
- c. Subject to the conditions and limitations contained in this permit, the following other solid waste materials may be used as fuel at the facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with **Specific Condition 36.** of this subsection.
  - i. Construction and demolition debris.
  - ii. Oil spill debris from aquatic, coastal, estuarine or river environments. Such items or materials include but are not limited to rags, wipes, and absorbents.



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- iii. 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.
- iv. 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.
- v. Waste materials that:
  - (a) are generated in the manufacture of items in categories (iii) or (iv), above and are functionally or commercially useless (expired, rejected or spent); or
  - (b) 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.
- vi. Waste materials that contain oil from:
  - (a) the routine cleanup of industrial or commercial establishments and machinery; or
  - (b) spills of virgin or used petroleum products. Such items or materials include but are not limited to rags, wipes, and absorbents.
- vii. Used oil and used oil filters. Used oil containing a polychlorinated biphenyls (PCB) concentration equal or greater than 50 pound per minute (ppm) shall not be burned, pursuant to the limitations of 40 CFR 761.20(e). {Permitting note: Waste materials specifically authorized above do not require Department approval.}
- viii. 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.

[Rule 62-4.070(1), and (3), F.A.C.]

- 11. Segregated Loads: The fuel may be received either as a mixture or as a single-item stream (segregated load) of discarded materials. If the facility intends to use an authorized fuel that is segregated non-MSW material, the fuel shall be either:
  - a. well mixed with MSW in the refuse pit; or
  - b. alternately charged with MSW in the hopper.
- 12. Combustion Practices: To ensure that the facility's fuel does not adversely affect the facility's combustion process or emissions, the facility operator shall:
  - a. comply with good combustion operating practices in accordance with 40 CFR 60.53b;
  - b. install, operate and maintain continuous emissions monitors (CEMS) for oxygen, carbon monoxide, sulfur dioxide, oxides of nitrogen and temperature in accordance with 40 CFR 60.58b; and
  - c. record and maintain the CEMS data in accordance with 40 CFR 60.59b.

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

Natural gas 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.

### MONITORING OF OPERATIONS

- 13. Continuous Steam Flow Monitoring: Municipal waste combustor unit load means the steam load of the municipal waste combustor unit measured as specified in §60.58b(i)(6). The owner or operator shall install,

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

### B. Municipal Waste Combustor & Auxiliary Burners – Unit 4

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 unit loads are allowed for testing purposes pursuant to 40 CFR 60.53b(b). [Rules 62-204.800(8), 62-4.070(1) and (3), F.A.C., and 40 CFR 60.53(a) and 60.58b(i)]

### EMISSIONS STANDARDS

14. Emissions from Unit 4 shall not exceed the emissions standards listed in the following table or in **Specific Conditions 15. - 22.** and using the test methods and procedures described in **Specific Conditions 23. - 27.**

Pollutant	Emission Standard/Limit <sup>1</sup>	Lb/hour	Basis
Nitrogen Oxides (NO <sub>x</sub> )	<u>1st year of operation:</u>		
	150 ppmvd - 24 hour block average and	79.8	Subpart Eb
	110 ppmvd- 30 day rolling average	58.5	Limit PTE
	<u>Thereafter:</u>		
	110 ppmvd - 24 hour block average and	58.5	BACT
	90 ppmvd - 12 month rolling average	47.9	BACT
Carbon Monoxide (CO)	80 ppmvd – 30-day rolling avg.	25.9	BACT
	100 ppmvd - 4 hr block average	32.4	BACT/Eb
Sulfur Dioxide (SO <sub>2</sub> )	26 ppmvd - 24 hour block average or 80% reduction <sup>2</sup>	19.2	BACT/Eb
Hydrogen Chloride (HCl) <sup>3</sup>	25 ppmvd or 95% reduction <sup>2</sup>	25.4	BACT/Eb
Particulate Matter (PM/PM <sub>10</sub> )	12.0 mg/dscm	3.3	Avoid PSD
Lead (Pb)	140 µg/dscm	NA	Subpart Eb
Mercury (Hg)	28 µg/dscm or 85% reduction <sup>2</sup>	0.022	Avoid PSD/Eb
Cadmium (Cd)	10 µg/dscm	NA	Subpart Eb
Dioxins/Furans <sup>4</sup>	13.0 ng/dscm	3.61 x 10 <sup>-6</sup>	BACT/Eb
Opacity	10 % - 6 minute average	NA	BACT/Eb
Ammonia Slip	@ 195 MMBtu/hr: 10 ppmvd		
	@ 260 MMBtu/hr: 15 ppmvd	NA	PM, Opacity

<sup>1</sup> All concentration values are corrected to 7% O<sub>2</sub>.  
µg/dscm: Micrograms per dry standard cubic meter  
mg/dscm: Milligrams per dry standard cubic meter  
ng/dscm: Nanograms per dry standard cubic meter  
ppmvd: Part per million dry volume  
NA: not applicable

<sup>2</sup> Whichever standard is less stringent.

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- <sup>3</sup> HCl is not a BACT pollutant. However, it must be limited together with SO<sub>2</sub> because they both comprise MWC-Acid Gases which has its own PSD threshold.
- <sup>4</sup> Dioxins/Furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans.
15. Nitrogen Oxides (NO<sub>x</sub>): During the first calendar year of operation, emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 150 ppmvd on a 24-hr daily arithmetic average nor 79.8 lb/hr and shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 30-operating day rolling average. Thereafter, emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.
- {Permitting Note: The owner or operator may request a permit modification of the 90 ppmvd NO<sub>x</sub> standard if ammonia plume or slip issues arise and persist at the facility. The Department reserves the right to make a final determination on any such request.}*
16. Carbon Monoxide (CO): Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average.
17. Sulfur Dioxide (SO<sub>2</sub>): Emissions of SO<sub>2</sub> as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved.
18. Hydrogen Chloride (HCl): Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction of 95 percent shall be achieved as demonstrated during the required stack test.
19. Mercury (Hg): Emissions of Hg shall not exceed 28 µg/dscm or an emissions reduction of 85 percent shall be achieved as demonstrated during the required annual stack test. During the first two years of operation, emissions of Hg shall not exceed 0.022 lb/hr as measured during quarterly stack tests to provide reasonable assurance that 12-month emissions are less than the applicable PSD threshold of 200 lb/yr.
- After the certification of the Hg-CEMS as described in **Specific Condition 35.**, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected during an annual stack test or from the Hg-CEMS.
- {Permitting Note: If the Hg-CEMS is certified prior to the end of the first two years of operation, the permittee may use the CEMS in lieu of the remaining quarterly tests.}*
20. Dioxins/Furans: Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor 3.61 x 10<sup>-6</sup> lb/hr.
21. Particulate Matter (PM/PM<sub>10</sub>): Emissions of PM shall exceed neither 12.0 mg/dscm nor 3.3 lb/hr. This will simultaneously demonstrate compliance with the PM<sub>10</sub> limits.
- {Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM<sub>10</sub> and MWC-Metals.}*
22. Opacity: Visible emissions shall not exceed 10 percent opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions test (VE).

### TEST METHODS AND PROCEDURES

23. Test Methods: Any required stack test shall be performed in accordance with the following methods.

EPA Method	Description of Method and Comments
1 - 4	Determination of Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content. Methods shall be performed as necessary to support other methods.

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EPA Method	Description of Method and Comments
5	Determination of Particulate Emissions. The minimum sample volume shall be 30 dry standard cubic feet.
6C	Determination of SO <sub>2</sub> Emissions (Instrumental).
7E	Determination of NO <sub>x</sub> Emissions (Instrumental). NO <sub>x</sub> emissions testing shall be conducted with the air heater operating at the highest heat input possible during the test.
9	Visual Determination of Opacity
10	Measurement of Carbon Monoxide Emissions (Instrumental). The method shall be based on a continuous sampling train.
23	Measurement of Dioxin/Furan Emissions
26 or 26A	Determination of Hydrogen Chloride Emissions
29	Determination of Metals Emissions from Stationary Sources
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Source <ul style="list-style-type: none"> <li>• This is an EPA conditional test method.</li> <li>• The minimum detection limit shall be 1 ppm.</li> </ul>

Method CTM-027 is published on EPA's Technology Transfer Network Web Site at "http://www.epa.gov/ttn/emc/ctm.html". The other methods are specified in Appendix A of 40 CFR 60, 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. Tests shall be conducted in accordance with the appropriate test method and the applicable requirements specified in this permit, and NSPS Subpart A in 40 CFR 60. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

24. **Testing Requirements:** Initial tests shall be conducted between 90% and 100% of permitted capacity; otherwise, this permit shall be modified to reflect the true maximum capacity as constructed. Subsequent annual tests shall be conducted between 90% and 100% of permitted capacity in accordance with the requirements of Rule 62-297.310(2), F.A.C. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
25. **Initial Compliance Demonstration:** Initial compliance stack tests shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. In accordance with the test methods specified in this permit, Unit 4 exhaust stack gas shall be tested to demonstrate compliance with the emission standards for NO<sub>x</sub>, CO, SO<sub>2</sub>, HCl, PM/PM<sub>10</sub>, lead, cadmium, Hg, dioxin/furans, and ammonia. The permittee shall provide the Compliance Authority with any other initial emissions performance tests conducted to satisfy vendor guarantees. [Rule 62-297.310(7)(a) and (b), F.A.C.; 40 CFR 60.8]
26. **Subsequent Compliance Testing:** Annual compliance stack tests for NO<sub>x</sub>, CO, SO<sub>2</sub>, HCl, PM/PM<sub>10</sub>, lead, cadmium, dioxins/furans, and ammonia shall be conducted during each federal fiscal year (October 1st to September 30th). Data collected from the reference method during the required RATA tests for CO, NO<sub>x</sub>, and SO<sub>2</sub> may be used to satisfy the annual testing requirement provided the notification requirements and emission testing requirements for performance and compliance tests of this permit are satisfied.

Prior to the certification of the Hg-CEMS as described in **Specific Condition 35.**, performance tests for Hg emissions shall be conducted quarterly during the first two years of operation then on a calendar year basis to demonstrate compliance with the concentration/reduction standards.

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After the certification of the Hg-CEMS as described in **Specific Condition 35.**, the owner or operator may demonstrate compliance with all Hg limits in this permit with data collected from the Hg-CEMS.

[Rules 62-297.310(7)(a) and (b), and 62-296.416, F.A.C., and 40 CFR 60.8 and 60.58b]

27. **Continuous Compliance:** The permittee shall demonstrate continuous compliance with the CO, NO<sub>x</sub>, and SO<sub>2</sub> emissions standards based on data collected by the certified CEMS. The permittee shall demonstrate continuous compliance with the opacity limit based on data collected by the required COMS. [Rule 62-210.200 (BACT), F.A.C., and 40 CFR 60, Subpart Eb]

### EXCESS EMISSIONS

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

28. **Department Regulations:** The following conditions apply only to the emissions limits given in **Specific Conditions 14. - 22.** that were specified pursuant to BACT or to avoid PSD applicability.
- Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. The Department authorizes three hours in any 24-hour period for this emissions unit. A malfunction means any unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner.
  - 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.
  - The permittee shall notify the Compliance Authority within one working day of discovering any emissions in excess of a CEMS standard subject to the specified averaging period. All such reasonably preventable emissions shall be included in any CEMS compliance determinations. All valid emissions data (including data collected during startup, shutdown and malfunction) shall be used to report emissions for the Annual Operating Report.

[Rule 62-210.700, F.A.C.]

29. **Regulations pursuant to 40 CFR 60, Subpart Eb:** The following conditions apply only to the emissions limits given in **Specific Conditions 14. - 22.** that were specified pursuant to 40 CFR 60, Subpart Eb.
- The opacity standards* set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard. [40 CFR 60.11(c)]
  - Startup, Shutdown and Malfunction:* Except as provided by 40 CFR 60.56b, the standards under 40 CFR 60, Subpart Eb, as incorporated in Rule 62-204.800(8)(b), F.A.C., apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence, except as provided in 40 CFR 60.58b(a)(1)(iii). During periods of startup, shutdown, or malfunction, monitoring data shall be dismissed or excluded from compliance calculations, but shall be recorded and reported in accordance with the provisions of 40 CFR 60.59b(d)(7).
    - The startup period commences when the affected facility begins the continuous burning of municipal solid waste and does not include any warm-up period when the affected facility is combusting fossil fuel or other non-municipal solid waste fuel, and no municipal solid waste is being fed to the combustor.

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

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

[40 CFR 60.58b(a)]

- c. *Special Provisions for CO:* For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence. [40 CFR 60.58b(a)(1)(iii)]

### CONTINUOUS MONITORING REQUIREMENTS

- 30. CEM Systems: The permittee shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) to measure and record the emissions of CO, NO<sub>x</sub>, Hg and SO<sub>2</sub> from Unit 4 in a manner sufficient to demonstrate continuous compliance with the CEMS emission standards of this subsection. All continuous monitoring systems other than the Hg CEMS shall be installed and functioning within the required performance specifications by the time of the initial performance tests. The Hg CEMS shall be installed and functioning within the required performance specifications by the end of the second year of operation as specified in **Specific Condition 35**.

- a. *CO Monitor:* The CO monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 4 or 4A and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 10 in Appendix A of 40 CFR 60 and shall be based on a continuous sampling train. The CO monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
- b. *NO<sub>x</sub> Monitor:* The NO<sub>x</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F, and the Data Assessment Report of Section 7 shall be made each calendar quarter, and reported semiannually to the Compliance Authority. The required RATA tests shall be performed using EPA Method 7E in Appendix A of 40 CFR 60. The NO<sub>x</sub> monitor span values shall be set appropriately, considering the allowable methods of operation and corresponding emission standards.
- c. *SO<sub>2</sub> Monitor:* The SO<sub>2</sub> monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 2 and shall comply with all requirements of 40 CFR 60.58b. Quality assurance procedures shall conform to the requirements of 40 CFR 60, Appendix F. The required RATA tests shall be performed using EPA Method 6C in Appendix A of 40 CFR 60. The SO<sub>2</sub> monitor span values shall be set appropriately, considering the expected range of emissions and corresponding emission standards.
- d. *Diluent Monitor:* A continuous emission monitoring system for measuring the oxygen content of the flue gas at each location where carbon monoxide, sulfur dioxide, nitrogen oxides emissions are monitored shall be installed, calibrated, maintained, and operated in accordance with the requirements of 40 CFR 60.58b.
- e. *Mercury Monitor:* A mercury monitor (Hg CEMS) shall be installed, certified and operated as described in **Specific Condition 35**. below.

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

### B. Municipal Waste Combustor & Auxiliary Burners – Unit 4

31. COMS: A continuous opacity monitoring system (COMS) shall be installed, calibrated, operated, and maintained in exhaust stack in a manner sufficient to demonstrate continuous compliance with the opacity standard specified in this section. Opacity shall be based on a 6-minute block average computed from at least one observation (measurement) every 15 seconds. For the COMS, the 6-minute block averages shall begin at the top of each hour. The COMS shall meet the applicable requirements of 40 CFR 60.58b(c)(8).
32. CEMS/COMS Certification and Initial Startup: Each CEMS/COMS, other than the Hg CEMS, required by this permit shall be installed prior to startup. Within 60 calendar days of achieving the maximum production rate, but no later than 180 calendar days after initial startup, the owner or operator shall certify each CEMS/COMS. Upon certification of each CEMS/COMS, the owner or operator shall demonstrate compliance with all applicable standards as specified in this permit. The Hg CEMS shall be installed and functioning within the required performance specifications within the first two years of operation as specified in **Specific Condition 35**. [Rules 62-4.070(3), 62-210.800, 62-210.200(BACT) and 62-297.520, F.A.C.; 40 CFR 60.7(a), 60.13(b), and 60.58b, and Appendix B]
33. CEMS Data Requirements: The CEMS shall express the results in the units of the applicable standard and in accordance with 40 CFR 60 subparts A, and Eb.
  - a. *Data Exclusion*: Except for monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall monitor and record emissions during all operations including episodes of startups, shutdowns, and malfunctions. Limited amounts of CEMS emissions data (other than mercury data) recorded during some of these episodes may be excluded from the corresponding compliance demonstration subject to the provisions of **Specific Conditions 28. and 29.** in this subsection. The permittee shall minimize the duration of data excluded for such episodes to the extent practicable.
  - b. *Availability*: Monitor availability for each CEMS used to demonstrate compliance shall be 95% or greater in any calendar quarter. Monitor availability shall be reported in the quarterly excess emissions report. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit, except as otherwise authorized by the Compliance Authority. The monitor availability requirements of this condition do not apply to the Hg CEMS for the first two years of operation of the CEM system. (This is consistent with the Hg CEMS availability requirement of subpart Eb.)
34. Continuous Flow Monitor: A continuous flow monitor shall be installed to determine the stack exhaust flow rate to be used in determining mass emission rates. The flow monitor shall be certified pursuant to 40 CFR 60, Appendix B, Performance Specification 6.

[Rules 62-210.200(BACT), 62-204.800(8), and 62-4.070(1) and (3), F.A.C.]
35. Mercury Continuous Emissions Monitoring System (Hg-CEMS): Within 24 months of commencing operation, the owner or operator shall install and certify a mercury CEMS demonstrated to meet the requirements in Performance Specification 12A (PS-12A), "Specifications and Test Procedures for Total Vapor Phase Mercury Continuous Monitoring Systems in Stationary Sources," or that has passed verification tests conducted under the auspices of the U.S. Environmental Protection Agency's (EPA) Environmental Technology Verification (ETV) Program. If the vendor provides to the Department verification of certification difficulties such that the CEMS cannot be certified by the certification deadline, and every reasonable effort has been made to do so, the Department shall grant a reasonable extension of time to certify the CEMS. After certification the owner or operator will begin reporting Hg mass emissions

## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

### B. Municipal Waste Combustor & Auxiliary Burners – Unit 4

data. The owner or operator shall adhere to the calibration drift and quarterly performance evaluation procedures and ongoing data quality assurance procedures in 40 CFR Part 60, Appendix F or 40 CFR Part 75, Appendix B. The mass emissions shall be estimated based on the actual data collected no later than 10 days following the end of the month. The mercury monitoring data results shall be submitted quarterly. The CEMS shall only be used as the method of compliance if the owner or operator, at a minimum, meets the requirements of 40 CFR 60.58b(n). Prior to use of the Hg-CEMS as the method to demonstrate compliance, the owner or operator shall submit written notice to the Department, and receive approval for missing data substitution and a data calculation approach plans. [Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C., 40 CFR 60.58b, and, Hillsborough County Environmental Protection Commission Local Ordinance 1-3.53.1(f), *Municipal Solid Waste Incinerators* (for Hg monitoring)]

### REPORTING AND RECORD KEEPING REQUIREMENTS

36. 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 10.** of this subsection:
- Each segregated load of non-MSW materials, subject to the percentage weight limitations of **Specific Condition 10.,** which is received for processing, shall be documented as to waste description and weight. The weight of all waste materials received for processing shall be measured using the facility truck scale and recorded.
  - Each day the total weight of segregated tires received shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.
  - Each day the total weight of segregated non-MSW materials received that are subject to the 5% restriction shall be computed, and the daily total shall be added to the sum of the daily totals from the previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of segregated non-MSW materials subject to the 5% restriction shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 5% limitation.
- [Rules 62-4.070(1) and (3), and 62-210.200(BACT), F.A.C.]
37. Stack Test Reports: 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 the as specified in Rule 62-297.310(8), F.A.C. [Rule 62-297.310(8), F.A.C.]
38. Malfunction Notifications: If temporarily unable to comply with any condition of the permit due to breakdown of equipment (malfunction) or destruction by hazard of fire, wind or by other cause, the permittee shall immediately (within one working day) notify the Compliance Authority. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of



## SECTION 3. EMISSION UNIT SPECIFIC CONDITIONS

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### B. Municipal Waste Combustor & Auxiliary Burners – Unit 4

destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. If requested by the Compliance Authority, the owner or operator shall submit a quarterly written report describing the malfunction. [Rules 62-210.700(6) and 62-4.130, F.A.C.]

39. SIP Quarterly Report: Within 30 days following the end of each calendar quarter, the permittee shall submit a report to the Compliance Authority summarizing: equipment malfunctions resulting in excluded CEMS data and/or excess emissions; and the monitor availability of each CEMS. The report shall contain the information and follow the general format specified in 40 CFR 60.7(c), subpart A. [Rules 62-4.070(3), 62-4.130, and 62-210.200(BACT), F.A.C.]
40. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370, F.A.C.]

**SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS****C. Ash Handling Building, Lime and Carbon Storage Silos**

This section addresses the following emissions units.

<b>ID No.</b>	<b>Emission Unit Description</b>
112	Expanded Ash Handling Building with Wet Scrubbing System
110	Activated Carbon Storage Silo – Unit 4
108	Pebble Lime Storage Silo – Unit 4

**EQUIPMENT AND CONTROL TECHNOLOGY**

1. Equipment Description: The permittee is authorized to construct one pebble lime storage silo and one activated carbon storage silo. Each silo will have a volume of approximately 2,900 cubic feet and will be equipped with its own fabric filter baghouse. [Application and Design]
2. Baghouse Controls: Each emissions unit identified for lime and carbon storage shall be controlled by a baghouse system. Each required baghouse shall be designed, operated, and maintained to achieve a PM design specification of 0.015 gr/dscf. [Application, Design and Rule 62-4.070(3), F.A.C.]
3. Wet Scrubber Controls: As part of this project, the ash handling building is being expanded. Currently, the building exhaust is controlled by a baghouse installed in accordance with Permit No. PSD-FL-112B issued on October 14, 1987. In conjunction with the ash building expansion, the permittee shall install a wet dust collection system in addition to the existing baghouse to control the ventilation exhaust from the ash handling building. The wet scrubber shall be a “Whirl/Wet Wet Dust Collector Size 70, Model H” (or equivalent) designed for the following specifications:
  - a. 7000 actual cubic feet per minute;
  - b. Approximately 40% control for submicron particles;
  - c. 80% control for particles  $\geq 1.0$  micron;
  - d. 95% control for particles  $\geq 2.0$  micron;
  - e. 97% control for particles  $\geq 3.0$  micron;
  - f. 98% control for particles  $\geq 5.0$  micron; and
  - g. 99% control for particles  $\geq 10.0$  micron.

A Dwyer magnehelic pressure gauge/switch (or equivalent) shall be installed to measure the differential pressure across the unit control and control the water level to maintain a differential pressure of  $8.0 \pm 0.5$  inches of water column. In addition, an alarm system shall be installed to warn of high water levels and low water levels. [Application, Design and Rule 62-4.070(3), F.A.C.]

**PERFORMANCE REQUIREMENTS**

4. Hours of Operation: These emission units may operate continuously (8,760 hours/year). [Rules 62-4.160(2), and 62-210.228(PTE), F.A.C.]
5. Emissions Limits: The following standards apply to each emissions point of this unit:
  - a. Visible emissions are limited to 5% opacity from each of the above listed emissions points controlled by a baghouse or wet scrubber.
  - b. Fugitive emissions are limited to 10% opacity from any emissions point not controlled by a baghouse or wet scrubber.

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

### C. Ash Handling Building, Lime and Carbon Storage Silos

- c. Emissions of particulate matter (PM) from the wet scrubber shall not exceed 0.066 lb/hour as determined by EPA Method 5. No initial or subsequent PM stack tests are required as long compliance is demonstrated with the opacity standard and the control device is properly maintained. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, special compliance tests may be required pursuant to Rule 62-297.310(7)(b), F.A.C.

{Permitting Note: The 5% opacity limitation is consistent with the design specifications and provides reasonable assurance that annual emissions of PM/PM<sub>10</sub> for all emissions units in this subsection combined will be less than 0.40 TPY.}

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

6. Compliance Demonstrations: Each emission point shall be tested to demonstrate initial compliance with the emission standards for visible emissions in accordance with EPA Method 9. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup. Thereafter, compliance with the visible emission limits for each emission point shall be demonstrated during each federal fiscal year (October 1<sup>st</sup> to September 30<sup>th</sup>). [Rules 62-4.070(3), and 62-297.310(7)(a), F.A.C.]
7. Test Methods: Any required tests shall be performed in accordance with the following reference methods and the applicable requirements of Appendix SC of this permit.

Method	Description of Method and Comments
5	Method for Determining Particulate Matter Emissions
9	Visual Determination of the Opacity of Emissions from Stationary Sources

8. Baghouse and Wet Scrubber O&M Plan: For each baghouse and the wet scrubber, the permittee shall prepare an operation and maintenance (O&M) plan to address proper operation, parametric monitoring, and a schedule for conducting periodic inspections and preventive maintenance. Baghouse and wet scrubber inspections and maintenance activities shall be recorded in a written log. The O&M plan shall be submitted to the Compliance Authority prior to the initial compliance tests for these units. [Rule 62-4.070(3), F.A.C.]
9. Wet Scrubber Monitoring: The wet scrubber shall be operated in accordance with the manufacturer's recommendations for the given operating conditions. The permittee shall take corrective actions as necessary when the water level alarm activates. [Rule 62-4.070(3), F.A.C.]
10. Test Reports: For each test conducted, the permittee shall file a test report including the information specified in Rule 62-297.310(8), F.A.C. with the compliance authority no later than 45 days after the last run of each test is completed. [Rules 62-297.310(8), F.A.C.]

## SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

### D. Cooling Tower

This section addresses the following emissions unit.

EU No.	Emissions Unit Description
111	One Cooling Tower Cell

#### EQUIPMENT

1. Cooling Tower: The permittee is authorized to construct one cooling tower cell with the following nominal design characteristics: a circulating water flow rate of 11,000 gpm; drift eliminators; and a drift rate of no more than 0.001 percent of the circulating water flow. [Application; Design]

#### EMISSIONS AND PERFORMANCE REQUIREMENTS

2. Drift Rate: Within 60 days of commencing commercial operation, the permittee shall certify that the cooling tower was constructed to achieve the specified drift rate of no more than 0.001 percent of the circulating water flow rate. [Rule 62-210.200(BACT), F.A.C.]

*{Permitting Note: This work practice standard is established as BACT avoidance for PM/PM<sub>10</sub> emissions from the cooling tower. Based on this design criteria, potential emissions are expected to be less than 0.5 tons of PM per year and less than 0.25 tons of PM<sub>10</sub> per year. Actual emissions are expected to be lower than these rates.}*

## SECTION 4. APPENDICES

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### Appendix A – NSPS Subpart A, Identification of General Provisions

Emissions units subject to a New Source Performance Standard of 40 CFR 60 are also subject to the applicable requirements of Subpart A, the General Provisions, including:

- § 60.1 Applicability.
- § 60.2 Definitions.
- § 60.3 Units and abbreviations.
- § 60.4 Address.
- § 60.5 Determination of construction or modification.
- § 60.6 Review of plans.
- § 60.7 Notification and Record Keeping.
- § 60.8 Performance Tests.
- § 60.9 Availability of information.
- § 60.10 State Authority.
- § 60.11 Compliance with Standards and Maintenance Requirements.
- § 60.12 Circumvention.
- § 60.13 Monitoring Requirements.
- § 60.14 Modification.
- § 60.15 Reconstruction.
- § 60.16 Priority List.
- § 60.17 Incorporations by Reference.
- § 60.18 General Control Device Requirements.
- § 60.19 General Notification and Reporting Requirements.

Individual subparts may exempt specific equipment or processes from some or all of these requirements. The general provisions may be provided in full upon request.

## SECTION 4. APPENDICES

### Appendix BD – BACT Determination

Refer to the draft BACT proposal discussed in the initial Technical Evaluation for this project and to the Final Determination issued with the Final Permit for the rationale regarding the following BACT determination for new MWC Unit 4.

Pollutant	Emission Standard/Limit <sup>1</sup>	Lb/hour	Pollutant
Nitrogen Oxides (NO <sub>x</sub> )	110 ppmvd - 24 hour block average and 90 ppmvd - 12 month rolling average	58.5 47.9	BACT BACT
Carbon Monoxide (CO)	80 ppmvd – 30-day rolling avg. 100 ppmvd - 4 hr block average	25.9 32.4	BACT BACT/Eb
Sulfur Dioxide (SO <sub>2</sub> )	26 ppmvd - 24 hour block average or 80% reduction <sup>2</sup>	19.2	BACT/Eb
Hydrogen Chloride (HCL) <sup>3</sup>	25 ppmvd or 95% reduction <sup>2</sup>	25.4	BACT/Eb
Dioxins/Furans <sup>4</sup>	13.0 ng/dscm	3.61 x 10 <sup>-6</sup>	BACT/Eb
Opacity	10% - 6 minute average	NA	BACT/Eb

<sup>1</sup> All concentration values are corrected to 7% O<sub>2</sub>.

µg/dscm: Micrograms per dry standard cubic meter

mg/dscm: Milligrams per dry standard cubic meter

ng/dscm: Nanograms per dry standard cubic meter

ppmvd: Part per million dry volume

NA: not applicable

<sup>2</sup> Whichever standard is less stringent.

<sup>3</sup> HCl is not a BACT pollutant. However, it must be limited together with SO<sub>2</sub> because they both comprise MWC-Acid Gases which has its own PSD threshold.

<sup>4</sup> Dioxins/furans: Total tetra through octa-chlorinated dibenzo-p-dioxins and dibenzofurans

- Nitrogen Oxides (NO<sub>x</sub>): Emissions of NO<sub>x</sub> in the stack exhaust gas as measured by the required CEMS shall exceed neither 110 ppmvd nor 58.5 lb/hr on a 24-hr daily arithmetic average and shall exceed neither 90 ppmvd nor 47.9 lb/hr on a 12-month rolling average, rolled monthly.
- Carbon Monoxide (CO): Emissions of CO in the stack exhaust gas as measured by the required CEMS shall exceed neither 100 ppmvd on a 4-hr block average nor 32.4 lb/hr and shall exceed neither 80 ppmvd nor 25.9 lb/hr on a 30-operating day rolling average.
- Sulfur Dioxide (SO<sub>2</sub>): Emissions of SO<sub>2</sub> as measured by the required CEMS shall exceed neither 26 ppmvd nor 19.2 lb/hr on a 24-hr daily geometric mean, or an emissions reduction of 80 percent shall be achieved.
- Hydrogen Chloride (HCl): Emissions of HCl shall exceed neither 25 ppmvd nor 25.4 lb/hr or, an emissions reduction 95 percent shall be achieved as demonstrated during the required stack test.
- Dioxins/Furans: Emissions of dioxins/furans shall exceed neither 13.0 ng/dscm nor 3.61 x 10<sup>-6</sup> lb/hr.  
*{Permitting note: Compliance with this condition will also demonstrate that emissions are less than the 15 TPY PSD thresholds for PM<sub>10</sub> and MWC-Metals}*
- Opacity: Visible emissions shall not exceed 10 percent opacity on a 6-minute average as measured by the required continuous opacity monitoring system (COMS) and measured by an annual visible emissions test (VE).

[40 CFR 60.44b, Rules 62-210.200(BACT), 62-204.800(8), 62-4.070, F.A.C.]

## SECTION 4. APPENDICES

### Appendix GC – General Conditions

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**Applicability of 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.

The proposed Hillsborough County Resource Recovery Facility Unit 4 is a new Large Municipal Waste Combustor (Large MWC) because it is a waste combustion unit that is capable of combusting more than 250 tons per day (TPD) of municipal solid waste (MSW).

The rules applicable to Large MWC's are given at 40 CFR 60, Sections 60.50b through 60.59b. More specifically, Unit 4 is a Mass Burn Waterwall Furnace. The emission limits applicable to this category of MWC are specified by type of combustor in the relevant sections, paragraphs and tables that address individual pollutants including CO, NO<sub>x</sub>, SO<sub>2</sub>, HCl, PM, dioxin/furan, opacity, Cd, Hg, Pb, and various emission monitoring and operational parameters.

Subpart 40 CFR 60, Subpart Eb was revised on May 10, 2006 just a few days prior to preparation of the draft permit for Unit 4. The Department is revising the Subpart description normally included in this appendix to reconcile the new requirements with the previous ones. An updated and complete Appendix Eb highlighting the requirements applicable to Unit 4 will be included in the final permitting action if and when issued.

The Department has insured that the Permit is at least as stringent as the requirements of the revised Subpart Eb. Particular attention has been given to the revised PM, Pb, Cd and Hg including the use of Hg - CEMS.

The previous version of 40 CFR 60, Subpart Eb with links to the May 10, 2006 changes is available at:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=e62a6113b2c8fd1679806489b479eab4&rgn=div6&view=text&node=40:6.0.1.1.1.15&idno=40>

## SECTION 4. APPENDICES

### Appendix GC – General Conditions

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The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
  - a. Have access to and copy and records that must be kept under the conditions of the permit;
  - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
  - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
  - a. A description of and cause of non-compliance; and
  - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.



## SECTION 4. APPENDICES

### Appendix GC – General Conditions

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9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
  - a. Determination of Best Available Control Technology (X);
  - b. Determination of Prevention of Significant Deterioration (X);
  - c. Compliance with National Emission Standards for Hazardous Air Pollutants ( ); and
  - d. Compliance with New Source Performance Standards (X).
14. The permittee shall comply with the following:
  - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
  - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
  - c. Records of monitoring information shall include:
    - 1) The date, exact place, and time of sampling or measurements;
    - 2) The person responsible for performing the sampling or measurements;
    - 3) The dates analyses were performed;
    - 4) The person responsible for performing the analyses;
    - 5) The analytical techniques or methods used; and
    - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

## SECTION 4. APPENDICES

### Appendix SC – Construction Permit Standard Conditions

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Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at this facility.

#### EMISSIONS AND CONTROLS

1. 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 permittee shall notify each Compliance Authority 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; 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 or the regulations. [Rule 62-4.130, F.A.C.]
2. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
3. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
4. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]
5. Excess Emissions - Notification: In case of excess emissions resulting from malfunctions, the permittee shall notify the Department or the appropriate Local Program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(6), F.A.C.]
6. VOC or OS Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
7. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]
8. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
9. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

## SECTION 4. APPENDICES

### Appendix SC – Construction Permit Standard Conditions

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#### TESTING REQUIREMENTS

10. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
11. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate 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. [Rule 62-297.310(2), F.A.C.]
12. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
13. Test Procedures: Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C.
  - a. Required Sampling Time: Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes. The minimum observation period for a visible emissions compliance test shall be thirty (30) minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur.
  - b. Minimum Sample Volume: Unless otherwise specified in the applicable rule or test method, the minimum sample volume per run shall be 25 dry standard cubic feet.
  - c. Calibration of Sampling Equipment: Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, F.A.C.[Rule 62-297.310(4), F.A.C.]
14. Determination of Process Variables
  - a. Required Equipment: The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

## SECTION 4. APPENDICES

### Appendix SC – Construction Permit Standard Conditions

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

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

15. **Sampling Facilities:** The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C.
16. **Test Notification:** The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
17. **Special Compliance Tests:** When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
18. **Test Reports:** The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
- 1) The type, location, and designation of the emissions unit tested.
  - 2) The facility at which the emissions unit is located.
  - 3) The owner or operator of the emissions unit.
  - 4) The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
  - 5) The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
  - 6) The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
  - 7) A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
  - 8) The date, starting time and duration of each sampling run.
  - 9) The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
  - 10) The number of points sampled and configuration and location of the sampling plane.

## SECTION 4. APPENDICES

### Appendix SC – Construction Permit Standard Conditions

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

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

#### RECORDS AND REPORTS

19. Records Retention: All measurements, records, and other data required by this permit shall be documented in a permanent, legible format and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. Records shall be made available to the Department upon request. [Rules 62-4.160(14) and 62-213.440(1)(b)2, F.A.C.]
20. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to the Compliance Authority by March 1st of each year. [Rule 62-210.370(2), F.A.C]

## **Appendix II**

### **Title V Air Operation Permit:**

0570261-006-AV

Hillsborough County  
**Hillsborough County Resource Recovery Facility**  
Facility ID No. **0570261**  
Hillsborough County

**Title V Air Operation Permit Renewal**

**FINAL Permit No. 0570261-006-AV**

Permitting Authority:  
State of Florida  
Department of Environmental Protection  
Division of Air Resource Management  
Bureau of Air Regulation  
Permitting South Section

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

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

Compliance Authority:  
Department of Environmental Protection  
Southwest District Office  
13051 N Telecom Parkway  
Temple Terrace, FL 33637-0926  
Telephone: 813/ 632-7600  
Fax: 813/ 632-7665

## Title V Air Operation Permit Renewal

FINAL Permit No. 0570261-006-AV

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# Florida Department of Environmental Protection

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

Charlie Crist  
Governor

Jeff Kottkamp  
Lt. Governor

Michael W. Sole  
Secretary

**Permittee:**  
Hillsborough County  
P.O. Box 1110  
Tampa, Florida 33601

**FINAL Permit No. 0570261-006-AV**  
**Facility ID No.: 0570261**  
**SIC Nos.: 4953**  
**Project: Title V Air Operation Permit Renewal**

The Hillsborough County Resource Recovery Facility is located at 350 Falkenburg Road, Tampa, Hillsborough County; UTM Coordinates: Zone 17, 368.2 km East and 3092.7 km North; Latitude: 27° 57' 14" North and Longitude: 82° 40' 22" West.

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

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

Appendix U-1, List of Unregulated Emissions Units and/or Activities  
Appendix I-1, List of Insignificant Emissions Units and/or Activities  
APPENDIX TV-6, TITLE V CONDITIONS version dated 06/23/06  
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96  
TABLE 297.310-1, CALIBRATION SCHEDULE version dated 10/07/96  
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS  
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT version dated 07/96

**Effective Date:** May 29, 2007  
**Renewal Application Due Date:** November 30, 2011  
**Expiration Date:** May 28, 2012

A handwritten signature in black ink, appearing to read "J. Kahn", written over a horizontal line.

Joseph Kahn, Director  
Division of Air Resource  
Management

JK/tlv/aal/tbc

## **Appendix II**

Hillsborough County  
**Hillsborough County Resource Recovery Facility**

FINAL Permit No. **0570261-006-AV**

### **Section I. Facility Information.**

#### **Subsection A. Facility Description.**

The facility consists of three municipal waste combustors (MWCs) having a nominal design rate capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. The "operating window" of 115 percent (%) over the nominal design rate of 150 MMBtu heat input corresponds to 172.5 MMBtu/hr heat input and 102,000 lbs steam/hour per each boiler. By letter dated March 17, 1998, D.B Riley, Inc. (boilers' manufacturer) indicated that it performed an evaluation of each boiler's ability to operate at the proposed increase steam flow of 102,000 lbs steam/hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lbs steam/hr. Short-term capacity is limited by limiting steam production (102,000 lbs/hr), which effectively limits heat input. The facility has a design net steam energy of 1158 Btu/lb. Natural gas fired auxiliary burners and combustion control systems, with continuous monitoring devices for combustion and process parameters and SO<sub>2</sub>, NO<sub>x</sub> and CO, are installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber, a fabric filter, and activated carbon injection system. A selective non-catalytic reduction system (SNCR) and auxiliary gas burners are installed in the furnaces. The facility also has an ash building and handling system; two lime storage silos; and an activated carbon storage silo.

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

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

## Appendix II

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

The facility consists of the following regulated emissions units:

<b>E.U. ID No.</b>	<b>Brief Description</b>
-001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 1
-002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 2
-003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 3
-100	Ash Building and Handling System
-101	Lime Storage Silo
-102	Activated Carbon Storage Silo
-106	Dolomitic Lime Storage Silo

#### Unregulated Emissions Units and/or Activities

-103	Cooling Tower
-104	Wastewater Treatment Facility
-105	NaOH Storage Tank

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

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

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

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

Table 1-1, Summary of Air Pollutant Standards and Terms

Table 2-1, Summary of Compliance Requirements

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1: Permit History

Statement of Basis

Appendix BW, Biomedical Waste Definitions

These documents are on file with the permitting authority:

Application for a Title V Air Operation Permit Renewal received on April 28, 2005.

Letter requesting additional information dated June 23, 2005.

Response from the Applicant received on September 21, 2005.

Letter requesting additional information dated October 11, 2005.

Response from the Applicant received on January 17, 2006.

Letter requesting additional information dated May 26, 2006.

Response from the Applicant received on September 18, 2006.

DRAFT Title V Air Operation Permit Renewal clerked on October 27, 2006.

PROPOSED Title V Air Operation Permit Renewal posted for EPA review on April 4, 2007.

## Appendix II

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### Section II. Facility-wide Conditions.

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

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.

{Permitting note: APPENDIX TV-6, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. The truck access doors to the facility shall remain closed except during normal working shifts when MSW is being received at the storage pit area. To minimize odors at the facility, 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.; and, PSD-FL-121(B)]

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

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

[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

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

a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

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

and,

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.

[Rule 62-213.440(1), F.A.C.]

## Appendix II

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**6. Insignificant Emissions Units and/or Activities.** Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.

[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

**7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions.** The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

Nothing was deemed necessary and ordered at this time.

[Rule 62-296.320(1)(a), F.A.C.]

**8. Emissions of Unconfined Particulate Matter.** Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS): All roads shall be adequately paved, and vacuum swept if appropriate, to minimize accumulations of ash and dust. The unpaved areas of the facility are maintained and either sodded or landscaped. Hoods, fans, filters, or similar equipment is used to contain, capture, and/or vent particulate matter. The conveyor systems of the facility are enclosed or covered. The ash is wetted before being stored in the ash handling building. 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 or leaving) shall be under negative air pressure.

[Rule 62-296.320(4)(c)2., F.A.C.; PSD-FL-121(B); and proposed in initial Title V permit application]

**9.** When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

**10. Statement of Compliance.** The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year using DEP Form number 62-213.900(7), F.A.C.

[Rule 62-213.440(3), F.A.C.]

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

Department of Environmental Protection  
Southwest District Office  
13051 N Telecom Parkway  
Temple Terrace, FL 33637-0926  
Telephone: 813/ 632-7600  
Fax: 813/ 632-7665

## Appendix II

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

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

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

## **Appendix II**

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

**Subsection A. This section addresses the following emissions unit(s).**

[Reserved.]

**Subsection B. This section addresses the following emissions unit(s).**

[Reserved.]

## Appendix II

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

#### Subsection C. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-001	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 1
-002	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 2
-003	150 MMBtu/hr (nominal) Municipal Waste Combustor & Auxiliary Burners - Unit 3

Each of the three municipal waste combustor (MWCs) have a nominal design rate capacity of 400 tons MSW per day, 150 MMBtu per hour (excluding 9.9 MMBtu/hr from the combustion air preheaters) and 94,270 pounds steam per hour with MSW having a heating value of 4,500 Btu per pound. The "operating window" of 115 percent (%) over the nominal design rate of 150 MMBtu heat input corresponds to 172.5 MMBtu/hr heat input and 102,000 lbs steam/hour per each boiler. By letter dated March 17, 1998, D.B Riley, Inc. (the boilers' manufacturer) indicated that it performed an evaluation of each boiler's ability to operate at the proposed increase steam flow of 102,000 lbs steam/hr and concluded that each boiler can safely operate at an increased continuous steam generation rate of 103,700 lbs steam/hr. Short-term capacity is limited by limiting steam production (102,000 lb/hr), which effectively limits heat input. The units have a designed net steam energy of 1,158 Btu/lb (1378.86 Btu/lb steam enthalpy – 220 Btu/lb feed water enthalpy). Natural gas fired auxiliary burners and combustion control systems, with continuous monitoring devices for combustion and process parameters and SO<sub>2</sub>, NO<sub>x</sub> and CO, are installed to improve combustion efficiency and control. The air pollution control equipment consists of a spray dryer absorber, a fabric filter, and activated carbon injection system. A selective non-catalytic reduction system (SNCR) and auxiliary gas burners are installed in the furnaces. Emissions exhaust through a 220 feet tall stack.

#### Compliance Assurance Monitoring (CAM) Applicability

The current Title V Permit contains emission limits that are equal to the NSPS, 40 CFR Subpart Cb, limits for particulate matter, cadmium, lead, hydrogen chloride, and dioxins/furans. Therefore, CAM is not applicable to these pollutants. And, because there are no control devices in place to control emissions of volatile organic compounds, fluoride, and sulfuric acid mist, CAM does not apply to these pollutants. In addition, the Applicant provided justification that demonstrated that the uncontrolled potentials to emit the pollutants (PTE) for mercury and beryllium are significantly less than ten (10) tons per year. Thus, CAM does not apply to these pollutants. Hillsborough County has committed to use the existing nitrogen oxides, sulfur dioxide, and carbon monoxide CEMS systems to demonstrate compliance with the permit limits, therefore the control devices for these pollutants are exempt from CAM.

{Permitting note(s): These emissions units are regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions in Rule 62-204.800(8)(b), F.A.C.; NSPS - 40 CFR 60, Subpart E, Standards of Performance for Incinerators, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT); Rule 62-296.401(2), F.A.C., Incinerators; and, Rule 62-296.416, F.A.C., Waste-to-Energy Facilities. Note: This project is subject to the requirements of 40 CFR 60,



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Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb, where these requirements are referenced by Subpart Cb.}

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

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

**C.1. Capacity.** The maximum individual MWC throughput shall not exceed 460 tons MSW per day (1380 tons per day entire facility), and, 102,000 pounds steam per hour (on a 4-hour block arithmetic average). The incinerators/boilers shall not be loaded in excess of their maximum operating capacity, equivalent to 1380 tons MSW per day total, but no more than 1200 tons MSW per day on an annual (52 week rolling average) average basis for the entire facility.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and PSD-FL-121(C).]

**C.2. Capacity.** The procedures specified in paragraphs (1) and (2) shall be used for calculating municipal waste combustor unit capacity as defined under 40 CFR 60.51b.

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

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

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

[40 CFR 60.31b and 40 CFR 60.58b(j).]

**C.3. Emissions Unit Operating Rate Limitation After Testing.** See specific condition **C.51**.

[Rule 62-297.310(2), F.A.C.]

**C.4. Maximum Demonstrated Municipal Waste Combustor Unit Load.** Unit load means the steam load of the municipal waste combustor measured as specified in 40 CFR 60.58b(I)(6). Each unit shall not operate at a load level greater than 110 percent of the unit's "maximum demonstrated unit load."

Maximum demonstrated municipal waste combustor unit load means the highest 4-hour arithmetic average municipal waste combustor unit load achieved during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in specific condition **C.25**. Higher loads are allowed for testing purposes as specified in 40 CFR 60.53b(b).

[40 CFR 60.34b(b) and 40 CFR 60.51b; and, PSD-FL-121(C)]

**C.5. Maximum Demonstrated Particulate Matter Control Device Temperature.** Maximum demonstrated particulate matter control device temperature means the highest 4-hour arithmetic average flue gas temperature measured at the particulate matter control device inlet during four consecutive hours during the most recent dioxin/furan performance test demonstrating compliance with the applicable limit for municipal waste combustor organics specified in Specific Condition **C.25**.

[40 CFR 60.34b(b) and 40 CFR 60.51b]

## Appendix II

### Hillsborough County Hillsborough County Resource Recovery Facility

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**C.6.0. Methods of Operation - Fuels.** The primary fuel for the facility is municipal solid waste (MSW), including the items and materials that fit within the definition of MSW contained in either 40 CFR 60.51b or Section 403.706(5), Florida Statutes (1995).

**C.6.1.** Subject to the limitations contained in this permit, the authorized fuels for the facility also include the other solid wastes that are not MSW which are described below. However, the facility shall not knowingly 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 61.31(g);
- (j) untreated biomedical waste from biomedical waste generators regulated pursuant to Chapter 64E-16, F.A.C., and from other similar generators (or sources);
- (k) segregated loads of biological waste.

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

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

**C.6.3.** The facility operator shall prepare and maintain records concerning the description and quantities of all segregated loads of non-MSW material which are received and used as fuel at the facility, and subject to a percentage weight limitation, below (C.6.6. and C.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.

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

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

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

Natural gas 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.

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

- (a) Confidential, proprietary or special documents (including but not limited to business records, lottery tickets, event tickets, coupons and microfilm);
- (b) Contraband which is being destroyed at the request of appropriately authorized local, state or federal governmental agencies, provided that such material is not an explosive, a propellant, a hazardous waste,

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or otherwise prohibited at the facility. For the purposes of this section, contraband includes but is not limited to drugs, narcotics, fruits, vegetables, plants, counterfeit money, and counterfeit consumer goods;

- (c) Wood pallets, clean wood, and land clearing debris;
- (d) Packaging materials and containers;
- (e) Clothing, natural and synthetic fibers, fabric remnants, and similar debris, including but not limited to aprons and gloves; or
- (f) Rugs, carpets, and floor coverings, but not asbestos-containing materials or polyethylene or polyurethane vinyl floor coverings.

**C.6.6.** Subject to the conditions and limitations contained in this permit, waste tires may be used as fuel at the facility. The total quantity of waste tires received as segregated loads and burned at the facility shall not exceed 3%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with specific condition **C.86.** below.

**C.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 facility (i.e. the following are authorized fuels that are non-MSW material). The total quantity of the following non-MSW material received as segregated loads and burned at the facility shall not exceed 5%, by weight, of the facility's total fuel. Compliance with this limitation shall be determined on a calendar month basis in accordance with specific condition **C.86.** below.

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

{Permitting note: Waste materials specifically authorized above do not require Department approval.}

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

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#### **C.6.8. Auxiliary Burners:**

(a) Auxiliary burners for each unit shall be fired only by natural gas. The annual capacity factor for natural gas shall be 10 percent or less. Monthly records shall be maintained of the amount of natural gas used by the auxiliary burners in each unit; and, the equivalent gross heat input. On an annual basis (no later than 60 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 in each unit was 10 percent or less. The annual capacity factor for natural gas is the ratio between the heat input to the unit from natural gas and the potential heat input to the unit had it been operated for 8760 hours during a calendar year at the maximum steady state design heat input capacity.

(b) During boiler startup, the auxiliary burners shall be operating at their maximum capacity prior to the introduction of municipal solid waste to the boilers, and shall remain in operation until the lime spray dryer and particulate control device are fully operational.

[Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, PSD-FL-121(C)]

**C.7. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.]

#### **Operating Practices and Requirements**

**C.8.** No owner or operator of an affected facility shall cause such facility to operate at a load level greater than 110 percent of the maximum demonstrated municipal waste combustor unit load as defined in specific condition **C.4.**, except as specified below. The averaging time is specified in specific condition **C.10.**

(1) During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no municipal waste combustor unit load limit is applicable.

(2) The municipal waste combustor unit load limit may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority 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.

[40 CFR 60.34b(b) and 40 CFR 60.53b(b)]

**C.9.** No owner or operator of an affected facility shall cause such facility to operate at a temperature, measured at the particulate matter control device inlet, exceeding 17 °C above the maximum demonstrated particulate matter control device temperature as defined in specific condition **C.5.**, except as specified below. The averaging time is specified in specific condition **C.10.** These requirements apply to each particulate matter control device utilized at the affected facility.

(1) During the annual dioxin/furan performance test and the two weeks preceding the annual dioxin/furan performance test, no particulate matter control device temperature limitations are applicable.

(2) The particulate matter control device temperature limits may be waived in accordance with permission granted by the Administrator or delegated State regulatory authority 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.

[40 CFR 60.34b(b) and 40 CFR 60.53b(c)]

**C.10. Operating Requirements.** The procedures specified in paragraphs (1) through (12) shall be used for determining compliance with the operating requirements under 40 CFR 60.53b.

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- (1) Compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 4-hour block arithmetic average for all types of affected facilities except mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers.
- (2) For affected mass burn rotary waterwall municipal waste combustors and refuse-derived fuel stokers, compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a) shall be determined using a 24-hour daily arithmetic average.
- (3) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring carbon monoxide at the combustor outlet and record the output of the system and shall follow the procedures and methods specified in paragraphs(i) through(iii).
  - (i) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of 40 CFR 60.
  - (ii) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 4A in appendix B of 40 CFR 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).
    - (A) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
  - (iii) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
- (4) The 4-hour block and 24-hour daily arithmetic averages specified in paragraphs (1) and (2) shall be calculated from 1-hour arithmetic averages expressed in parts per million by volume corrected to 7 percent oxygen (dry basis). The 1-hour arithmetic averages shall be calculated using the data points generated by the continuous emission monitoring system. At least two data points shall be used to calculate each 1-hour arithmetic average.
- (5) The owner or operator of an affected facility may request that compliance with the carbon monoxide emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in 40 CFR 60.58b(b)(6).
- (6) The procedures specified in paragraphs (i) through (v) shall be used to determine compliance with load level requirements under 40 CFR 60.53b(b).
  - (i) The owner or operator of an affected facility with steam generation capability shall install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter; measure steam (or feed water) flow in kilograms per hour (or pounds per hour) on a continuous basis; and record the output of the monitor. Steam (or feed water) flow shall be calculated in 4-hour block arithmetic averages.
  - (ii) The method included in the "American Society of Mechanical Engineers Power Test Codes: Test Code for Steam Generating Units, Power Test Code 4.1-1964 (R1991)" section 4 (incorporated by reference, see 40 CFR 60.17) shall be used for calculating the steam (or feed water) flow required under paragraph (6)(i). The recommendations in "American Society of Mechanical Engineers Interim Supplement 19.5 on Instruments and Apparatus: Application, Part II of Fluid Meters, 6th edition (1971)," chapter 4 (incorporated by reference-see 40 CFR 60.17) shall be followed for design, construction, installation, calibration, and use of nozzles and orifices except as specified in (iii).
  - (iii) Measurement devices such as flow nozzles and orifices are not required to be recalibrated after they are installed.

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- (iv) All signal conversion elements associated with steam (or feed water flow) measurements must be calibrated according to the manufacturer's instructions before each dioxin/furan performance test, and at least once per year.
- (7) To determine compliance with the maximum particulate matter control device temperature requirements under 40 CFR 60.53b(c), the owner or operator of an affected facility shall install, calibrate, maintain, and operate a device for measuring on a continuous basis the temperature of the flue gas stream at the inlet to each particulate matter control device utilized by the affected facility. Temperature shall be calculated in 4-hour block arithmetic averages.
- (8) The maximum demonstrated municipal waste combustor unit load shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated municipal waste combustor unit load shall be the highest 4-hour arithmetic average load achieved during four consecutive hours during the most recent test during which compliance with the dioxin/furan emission limit was achieved.
- (9) For each particulate matter control device employed at the affected facility, the maximum demonstrated particulate matter control device temperature shall be determined during the initial performance test for dioxins/furans and each subsequent performance test during which compliance with the dioxin/furan emission limit specified in 40 CFR 60.52b(c) is achieved. The maximum demonstrated particulate matter control device temperature shall be the highest 4-hour arithmetic average temperature achieved at the particulate matter control device inlet during four consecutive hours during the most recent test during which compliance with the dioxin/furan limit was achieved.
- (10) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs(i) and(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
- (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
- (ii) At a minimum, each carbon monoxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (11) All valid continuous emission monitoring system data must be used in calculating the parameters specified under 40 CFR 60.58b(i) even if the minimum data requirements of paragraph (10) are not met. When carbon monoxide continuous emission data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 10 to provide, as necessary, the minimum valid emission data.
- (12) Quarterly accuracy determinations and daily calibration drift tests for the carbon monoxide continuous emission monitoring system shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.
- [40 CFR 60.38b and 40 CFR 60.58b(i)]

### **Operator Training and Certification**

#### **C.11. Standards for municipal waste combustor operator training and certification.**

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

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

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

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

(2) If one of the persons listed in paragraph (c) must leave the affected facility during their operating shift, a provisionally certified control room operator who is onsite at the affected facility may fulfill the requirement in paragraph (c).

(d) All chief facility operators, shift supervisors, and control room operators at affected facilities must complete the EPA or State municipal waste combustor operator training course no later than the date 6 months after the date of startup of the affected facility, or by 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)], whichever is later.

(e) The owner or operator of an affected facility shall develop and update on a yearly basis a site-specific operating manual that shall, at a minimum, address the elements of municipal waste combustor unit operation specified in paragraphs (e)(1) through (e)(11).

(1) A summary of the applicable standards;

(2) A description of basic combustion theory applicable to a municipal waste combustor unit;

(3) Procedures for receiving, handling, and feeding municipal solid waste;

(4) Municipal waste combustor unit startup, shutdown, and malfunction procedures;

(5) Procedures for maintaining proper combustion air supply levels;

(6) Procedures for operating the municipal waste combustor unit within the standards established;

(7) Procedures for responding to periodic upset or off-specification conditions;

(8) Procedures for minimizing particulate matter carryover;

(9) Procedures for handling ash;

(10) Procedures for monitoring municipal waste combustor unit emissions; and

(11) Reporting and recordkeeping procedures.

(f) The owner or operator of an affected facility shall establish a training program to review the operating manual according to the schedule specified in paragraphs (f)(1) and (f)(2) with each person who has responsibilities affecting the operation of an affected facility including, but not limited to, chief facility operators, shift supervisors, control room operators, ash handlers, maintenance personnel, and crane/load handlers.

(1) Each person specified in paragraph (f) shall undergo initial training no later than the date specified in paragraph (f)(1)(i), (f)(1)(ii), or (f)(1)(iii), whichever is later.

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

(ii) The date prior to the day the person assumes responsibilities affecting municipal waste combustor unit operation; or

(iii) 12 months after State plan approval [40 CFR 60.39b(c)(4)(iii)].

(2) Annually, following the initial review required by paragraph (f)(1).

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(g) The operating manual required by paragraph (e) shall be kept in a readily accessible location for all persons required to undergo training under paragraph (f). The operating manual and records of training shall be available for inspection by the EPA or its delegated enforcement agency upon request.  
[40 CFR 60.35b, 40 CFR 60.39b(c)(4)(ii) & (iii), and 40 CFR 60.54b]

**C.12.** The requirement specified in 40 CFR 60.54b(d) does not apply to chief operators, shift supervisors, and control room operators who have obtained full certification from the American Society of Mechanical Engineers on or before the date of State plan approval.  
[40 CFR 60.39b(c)(4)(iii)(A)]

**C.13.** The owner or operator of a designated facility may request that the EPA Administrator waive the requirement specified in 40 CFR 60.54b(d) for chief operators, shift supervisors, and control room operators who have obtained provisional certification from the American Society of Mechanical Engineers on or before the date of State plan approval.  
[40 CFR 60.39b(c)(4)(iii)(B)]

**C.14.** The initial training requirements specified in 40 CFR 60.54b(f)(1) shall be completed no later than the date specified in (1), (2), or (3), whichever is later.  
(1) The date six (6) months after the date of startup of the affected facility;  
(2) Twelve (12) months after State plan approval; or  
(3) The date prior to the day when the person assumes responsibilities affecting municipal waste combustor unit operation.  
[40 CFR 60.39b(c)(4)(iii)(C)]

### **Emission Limitations and Standards**

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

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions **C.15. - C.18.** and **C.22. - C.31.** are based on the specified averaging time of the applicable test method.}

{Permitting note: Equivalent emissions (pound per hour and pound per million Btu), where they appear, are listed for the purposes of providing information and to indicate the potential to emit and are not emission compliance standards.}

### **Particulate Matter**

**C.15.** The emission limit for particulate matter contained in the gases discharged to the atmosphere from each MWC unit is 27 milligrams per dry standard cubic meter or 0.012 grain per dry standard cubic foot, corrected to 7 percent oxygen (equivalent to 0.024 lb/MMBtu, heat input and 4.1 lbs/hr) and 17.96 tons/yr.  
[40 CFR 60.33b(a)(1)(i) and PSD-FL-121(C)]

### **Visible Emissions**

**C.16.** The emission limit for opacity exhibited by the gases discharged to the atmosphere from each MWC unit is 10 percent (6-minute block average).  
[40 CFR 60.33b(a)(1)(iii) and PSD-FL-121(C)]



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### **Cadmium**

**C.17.** The emission limit for cadmium contained in the gases discharged to the atmosphere from each MWC unit is 0.040 milligrams per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 3.47E-05 lb/MMBtu, heat input and 6.00E-03 lb/hr) and 0.026 ton/yr.  
[40 CFR 60.33b(a)(2)(i) and PSD-FL-121(C)]

### **Mercury**

**C.18.** The emission limit for mercury contained in the gases discharged to the atmosphere from each MWC unit is 0.070 milligrams per dry standard cubic meter or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent (equivalent to 1.17E-04 lb/MMBtu, heat input or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent and 0.020 lb/hr or 15 percent of the potential mercury emission concentration (85-percent reduction by weight), corrected to 7 percent oxygen, whichever is less stringent) and 0.087 ton/yr.  
[40 CFR 60.33b(a)(3); Rule 62-296.416(3)(a)1., F.A.C.; and, PSD-FL-121(C)]

**C.19.** Facilities subject to the mercury emissions limiting standard of Rule 62-296.416(3)(a)1., F.A.C., shall demonstrate individual emissions unit compliance by the compliance date specified in Rule 62-296.416(3)(a)2., F.A.C., and annually thereafter.  
[Rule 62-296.416(3)(a)3., F.A.C.]

**C.20.** [Reserved.]

**C.21.** [Reserved.]

### **Lead**

**C.22.** The emission limit for lead contained in the gases discharged to the atmosphere from each MWC unit is 0.44 milligrams per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 3.81E-04 lb/MMBtu, heat input and 0.065 lb/hr) and 0.288 ton/yr.  
[40 CFR 60.33b(a)(4) and PSD-FL-121(C)]

### **Sulfur Dioxide**

**C.23.** The emission limit for sulfur dioxide contained in the gases discharged to the atmosphere from each MWC unit is 29 parts per million by volume or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent (equivalent to 0.190 lb/MMBtu, heat input or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent and 32.86 lbs/hr or 25 percent of the potential sulfur dioxide emission concentration (75-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent) and 143.9 tons/yr. Compliance with this emission limit is based on a 24-hour daily geometric mean.  
[40 CFR 60.33b(b)(3)(i) and PSD-FL-121(C)]

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#### **Hydrogen Chloride**

**C.24.** The emission limit for hydrogen chloride contained in the gases discharged to the atmosphere from each MWC unit is 29 parts per million by volume or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent (0.099 lb/MMBtu, heat input or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent and 17.00 lbs/hr or 5 percent of the potential hydrogen chloride emission concentration (95-percent reduction by weight or volume), corrected to 7 percent oxygen (dry basis), whichever is less stringent) and 74.43 tons/yr.  
[40 CFR 60.33b(b)(3)(ii) and PSD-FL-121(C)]

#### **Dioxins/Furans**

**C.25.** The emission limit for dioxins/furans contained in the gases discharged to the atmosphere from each MWC unit that do not employ an electrostatic precipitator-based emission control system is 30 nanograms per dry standard cubic meter (total mass), corrected to 7 percent oxygen (equivalent to 2.60E-08 lb/MMBtu, heat input and 4.5E-06 lb/hr) and 1.96E-05 ton/yr.  
[40 CFR 60.33b(c)(1)(ii) and PSD-FL-121(C)]

#### **Nitrogen Oxides**

**C.26.** The emission limit for nitrogen oxides contained in the gases discharged to the atmosphere from each MWC unit is 205 parts per million by volume, corrected to 7 percent oxygen, dry basis (equivalent to 0.34 lb/MMBtu, heat input and 58.63 lbs/hr) and 256 tons/yr. Compliance with this emission limit is based on a 24-hour daily arithmetic mean.

Nitrogen oxide emissions from the auxiliary burners are approximately 3.45 lbs/hr and 15.1 tons/yr per unit. These emissions are part of, and not in addition to, combustor emissions. Allowable emissions for MSW combustors include auxiliary burners. This facility is limited to a 10 percent (0.10) or less, total annual gross heat input for natural gas consumption. Auxiliary burners for each MWC unit shall be fired only by natural gas, and consumption of natural gas shall not exceed 104,937,500 cubic feet per MWC unit in any calendar year (i.e., annual capacity factor for natural gas of 10% or less as determined by 40 CFR 60.44b(d)).

[40 CFR 60.33b(d) and PSD-FL-121(C)]

#### **Carbon Monoxide**

**C.27.** The emission limit for carbon monoxide contained in the gases discharged to the atmosphere from each MWC unit is 100 parts per million by volume, measured at the combustor outlet in conjunction with a measurement of oxygen concentration, corrected to 7 percent oxygen, dry basis (equivalent to 0.101 lb/MMBtu, heat input and 17.4 lbs/hr) and 76.26 tons/yr. Calculated as an arithmetic average.

Averaging time is a 4-hour block average.

[40 CFR 60.34b(a); Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.; and, PSD-FL-121(C)]

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### **Fluoride**

**C.28.** The emission limit for fluoride contained in the gases discharged to the atmosphere from each MWC unit is 6.74 milligrams per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 0.0059 lb/MMBtu, heat input and 1.00 lbs/hr) and 4.43 tons/yr.  
[PSD-FL-121(C)]

### **Beryllium**

**C.29.** The emission limit for beryllium contained in the gases discharged to the atmosphere from each MWC unit is 1.48 micrograms per dry standard cubic meter, corrected to 7 percent oxygen (equivalent to 1.27E-06 lb/MMBtu, heat input and 2.18E-04 lbs/hr) and 9.6E-04 ton/yr.  
[Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.; and, PSD-FL-121(C)]

### **Volatile Organic Compounds**

**C.30.** The emission limit for volatile organic compounds contained in the gases discharged to the atmosphere from each MWC unit shall not exceed 0.01 grain per dry standard cubic foot, corrected to 12 percent carbon dioxide or 0.2 lb/ton, whichever is more restrictive, to be demonstrated during the initial compliance test, only.  
[PSD-FL-104 and PSD-FL-121(C)]

### **Sulfuric Acid Mist**

**C.31.** The emission limit for sulfuric acid mist contained in the gases discharged to the atmosphere from each MWC unit shall not exceed 0.072 grain per dry standard cubic foot, corrected to 12 percent carbon dioxide, to be demonstrated during the initial compliance test, only.  
[PSD-FL-121(C)]

### **Excess Emissions**

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

**C.32.** The opacity standards set forth in 40 CFR 60 shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.  
[40 CFR 60.11(c)]

**C.33.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.  
[40 CFR 60.11(d)]

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**C.34.1. Startup, Shutdown and Malfunction.** The standards under 40 CFR 60, Subpart Cb apply at all times except during periods of startup, shutdown, or malfunction. Duration of startup or shutdown periods are limited to 3 hours per occurrence.

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

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

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

**C.34.2.** For the purpose of compliance with the carbon monoxide emission limits in 40 CFR 60.53b(a), if a loss of boiler water level control (e.g., loss of combustion air fan, induced draft fan, combustion grate bar failure) is determined to be a malfunction, the duration of the malfunction period is limited to 15 hours per occurrence.

[40 CFR 60.58b(a)(1)iii]

**C.35.** Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed three hours per occurrence. A malfunction means any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal or usual manner.

[Rule 62-210.700(1), F.A.C.; and, PSD-FL-121(C)]

**C.36.** 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 malfunction shall be prohibited.

[Rule 62-210.700(4), F.A.C.]

### **Test Methods and Procedures**

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

**C.37.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

### **Particulate Matter and Opacity**

C.38. The procedures and test methods specified in paragraphs (1) through (11) shall be used to determine compliance with the emission limits for particulate matter and opacity.

- (1) The EPA Reference Method 1 shall be used to select sampling site and number of traverse points.
- (2) The EPA Reference Method 3, 3A, or 3B, as applicable shall be used for gas analysis.
- (3) The EPA Reference Method 5 shall be used for determining compliance with the particulate matter emission limit. The minimum sample volume shall be 1.7 cubic meters. The probe and filter holder heating systems in the sample train shall be set to provide a gas temperature no greater than  $160 \pm 14$  °C. An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 5 run.
- (4) The owner or operator of an affected facility may request that compliance with the particulate matter emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph (6).
- (5) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the particulate matter emission concentrations from the three test runs is used to determine compliance.
- (6) In accordance with paragraphs (7) and (11), EPA Reference Method 9 shall be used for determining compliance with the opacity limit except as provided under 40 CFR 60.11(e)
- (7) The owner or operator of an affected facility shall conduct an initial performance test for particulate matter emissions and opacity as required under 40 CFR 60.8.
- (8) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous opacity monitoring system for measuring opacity and shall follow the methods and procedures specified in paragraphs (8)(i) through (8)(iv).
  - (i) The output of the continuous opacity monitoring system shall be recorded on a 6-minute average basis.
  - (ii) The continuous opacity monitoring system shall be installed, evaluated, and operated in accordance with 40 CFR 60.13.
  - (iii) The continuous opacity monitoring system shall conform to Performance Specification 1 in appendix B of 40 CFR 60.
  - (iv) The initial performance evaluation shall be completed no later than 180 days after the date of the initial startup of the municipal waste combustor unit, as specified under 40 CFR 60.8.
- (9) Following the date that the initial performance test for particulate matter is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for particulate matter on an annual basis (no more than 12 calendar months following the previous performance test).
- (10) [reserved]
- (11) Following the date that the initial performance test for opacity is completed or is required to be completed under 40 CFR 60.8 for an affected facility, the owner or operator shall conduct a performance test for opacity on an annual basis (no more than 12 calendar months following the previous performance test) using the test method specified in paragraph (6).  
[40 CFR 60.38b and 40 CFR 60.58b(c)]

### **Cadmium, Lead and Mercury**

C.39. The procedures and test methods specified in paragraphs (1) and (2) shall be used to determine compliance with the emission limits for cadmium, lead, and mercury.

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

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- (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 shall be used for determining compliance with the cadmium and lead emission limits.
  - (iv) An oxygen or carbon dioxide measurement shall be obtained simultaneously with each Method 29 test run for cadmium and lead required under paragraph (1)(iii).
  - (v) The owner or operator of an affected facility may request that compliance with the cadmium or lead emission limit be determined using carbon dioxide measurements corrected to an equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).
  - (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the cadmium or lead emission concentrations from three test runs or more shall be used to determine compliance.
  - (vii) Following the date of the initial performance test or the date on which the initial performance test is required to be completed under 40 CFR 60.8, the owner or operator of an affected facility shall conduct a performance test for compliance with the emission limits for cadmium and lead on an annual basis (no more than 12 calendar months following the previous performance test).
  - (viii) [reserved]
  - (ix) [reserved]
- (2) The procedures and test methods specified in paragraphs (2)(i) through (2)(xi) shall be used to determine compliance with the mercury emission limit.
- (i) The EPA Reference Method 1 shall be used for determining the location and number of sampling points.
  - (ii) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.
  - (iii) The EPA Reference Method 29 shall be used to determine the mercury emission concentration. The minimum sample volume when using Method 29 for mercury shall be 1.7 cubic meters.
  - (iv) An oxygen (or carbon dioxide) measurement shall be obtained simultaneously with each Method 29 test run for mercury required under paragraph (2)(iii).
  - (v) The percent reduction in the potential mercury emissions (%PHG) is computed using equation 1:

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

where:

%PHG = percent reduction of the potential mercury emissions achieved.

$E_i$  = potential mercury emission concentration measured at the control device inlet, corrected to 7 percent oxygen (dry basis).

$E_o$  = controlled mercury emission concentration measured at the mercury control device outlet, corrected to 7 percent oxygen (dry basis).

- (vi) All performance tests shall consist of a minimum of three test runs conducted under representative full load operating conditions. The average of the mercury emission concentrations or percent reductions from three test runs or more is used to determine compliance.
- (vii) The owner or operator of an affected facility may request that compliance with the mercury emission limit be determined using carbon dioxide measurements corrected to an

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equivalent of 7 percent oxygen. The relationship between oxygen and carbon dioxide levels for the affected facility shall be established as specified in paragraph 40 CFR 60.58b(b)(6).

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

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

(x) [reserved]

(xi) The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating carbon usage. See specific condition **C.81**.

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

**C.40. Mercury Emissions Test Method and Procedures.** All mercury emissions tests performed pursuant to the requirements of this rule shall comply with the following provisions.

1. The test method for mercury shall be EPA Method 29 adopted in Chapter 62-297, F.A.C.

2. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C.

(4) Flue Gas Temperature Standard. Waste-to-energy facilities choosing to control mercury emissions through the use of post-combustion control equipment designed to remove mercury from flue gases shall comply with the flue gas temperature standard of Rule 62-296.416(4)(a), F.A.C.

(a) Temperature Standard. The flue gas temperature standard set forth in 40 CFR 60.53b(c), incorporated by reference in Rule 62-04.800, F.A.C., shall apply.

(b) Temperature Monitoring. The temperature monitoring requirements set forth in 40 CFR 60.58b(i), incorporated by reference in Rule 62-204.800, F.A.C., shall apply.

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

See specific condition **C.81**.

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

### Sulfur Dioxide

**C.41.** The procedures and test methods specified in paragraphs (1) through (14) shall be used for determining compliance with the sulfur dioxide emission.

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

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

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

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

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- (5) The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system for measuring sulfur dioxide emissions discharged to the atmosphere and record the output of the system.
- (6) Following the date that the initial performance test for sulfur dioxide is completed or is required to be completed under 40 CFR 60.8, compliance with the sulfur dioxide emission limit shall be determined based on the 24-hour daily geometric average of the hourly arithmetic average emission concentrations using continuous emission monitoring system outlet data if compliance is based on an emission concentration, or continuous emission monitoring system inlet and outlet data if compliance is based on a percent reduction.
- (7) At a minimum, valid continuous monitoring system hourly averages shall be obtained as specified in paragraphs (7)(i) and (7)(ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.
- (i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.
  - (ii) Each sulfur dioxide 1-hour arithmetic average shall be corrected to 7 percent oxygen on an hourly basis using the 1-hour arithmetic average of the oxygen (or carbon dioxide) continuous emission monitoring system data.
- (8) The 1-hour arithmetic averages required under paragraph (6) shall be expressed in parts per million corrected to 7 percent oxygen (dry basis) and used to calculate the 24-hour daily geometric average emission concentrations and daily geometric average emission percent reductions. The 1-hour arithmetic averages shall be calculated using the data points required under 40 CFR 60.13(e)(2).
- (9) All valid continuous emission monitoring system data shall be used in calculating average emission concentrations and percent reductions even if the minimum continuous emission monitoring system data requirements of paragraph (7) are not met.
- (10) The procedures under 40 CFR 60.13 shall be followed for installation, evaluation, and operation of the continuous emission monitoring system.
- (11) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the municipal waste combustor as specified under 40 CFR 60.8.
- (12) The continuous emission monitoring system shall be operated according to Performance Specification 2 in 40 CFR 60 Appendix B.
- (i) During each relative accuracy test run of the continuous emission monitoring system required by Performance Specification 2 in 40 CFR 60 appendix B, sulfur dioxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (A) and (B).
    - (A) For sulfur dioxide, EPA Reference Method 6, 6A, or 6C shall be used.
    - (B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.
  - (ii) The span value of the continuous emissions monitoring system at the inlet to the sulfur dioxide control device shall be 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit. The span value of the continuous emission monitoring system at the outlet of the sulfur dioxide control device shall be 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the municipal waste combustor unit.
- (13) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 1 in appendix F of 40 CFR 60.



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(14) When sulfur dioxide emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day that the affected facility is operated and combusting municipal solid waste for 90 percent of the days per calendar quarter that the affected facility is operated and combusting municipal solid waste.

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

**Hydrogen Chloride**

**C.42.** The procedures and test methods specified in paragraphs (1) through (8) shall be used for determining compliance with the hydrogen chloride emission limit.

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

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

(3) The percent reduction in potential hydrogen chloride emissions (% PHCl) is computed using equation 2:

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

where:

%PHCl = percent reduction of the potential hydrogen chloride emissions achieved.

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

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

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

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

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

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

(8) [reserved]

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

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#### Dioxin/Furan

C.43. The procedures and test methods specified in paragraphs (1) through (9) shall be used to determine compliance with the limits for dioxin/furan emissions.

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

(2) The EPA Reference Method 3, 3A, or 3B, as applicable, shall be used for flue gas analysis.

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

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

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

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

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

(i) For affected facilities, performance tests shall be conducted on an annual basis (no more than 12 calendar months following the previous performance test.)

(ii) [reserved]

(iii) Where all performance tests over a 2-year period indicate that dioxin/furan emissions are less than or equal to 15 nanograms per dry standard cubic meter (total mass) for all affected facilities located within a municipal waste combustor plant, the owner or operator of the municipal waste combustor plant may elect to conduct annual performance tests for one affected facility (i.e., unit) per year at the municipal waste combustor plant. At a minimum, a performance test for dioxin/furan emissions shall be conducted annually (no more than 12 months following the previous performance test) for one affected facility at the municipal waste combustor plant. Each year a different affected facility at the municipal waste combustor plant shall be tested, and the affected facilities at the plant shall be tested in sequence (e.g., unit 1, unit 2, unit 3, unit 4, as applicable). If each annual performance test continues to indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass), the owner or operator may continue conducting a performance test on only one affected facility per year. If any annual performance test indicates a dioxin/furan emission level greater than 15 nanograms per dry standard cubic meter (total mass), performance tests thereafter shall be conducted annually on all affected facilities at the plant until and unless all annual performance tests for all affected facilities at the plant over a 2-year period indicate a dioxin/furan emission level less than or equal to 15 nanograms per dry standard cubic meter (total mass).

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

(7) The owner or operator of an affected facility where activated carbon is used to comply with the dioxin/furan emission limits specified in 40 CFR 60.52b(c) or the dioxin/furan emission level specified in paragraph (5)(iii) shall follow the procedures specified in 40 CFR 60.58b(m) for measuring and calculating the carbon usage rate.

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

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

(9) As specified under 40 CFR 60.8, all performance tests shall consist of three test runs. The average of the dioxin/furan emission concentrations from the three test runs is used to determine compliance.

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

### Nitrogen Oxides

C.44. The procedures and test methods specified in paragraphs (1) through (12) shall be used to determine compliance with the nitrogen oxides emission limit for affected facilities under Sec. 60.52b(d).

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

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

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

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

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

(6) At a minimum, valid continuous emission monitoring system hourly averages shall be obtained as specified in paragraphs (i) and (ii) for 75 percent of the operating hours per day for 90 percent of the operating days per calendar quarter that the affected facility is combusting municipal solid waste.

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

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

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

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

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

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

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

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

(B) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, as applicable shall be used.

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

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

(12) When nitrogen oxides continuous emissions data are not obtained because of continuous emission monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained using other monitoring systems as approved by the Administrator or EPA Reference Method 19 to provide, as necessary, valid emissions data for a minimum of 75 percent of the hours per day for 90 percent of the days per calendar quarter the unit is operated and combusting municipal solid waste.

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

#### **Fluoride**

**C.45.** Compliance with the fluoride limits shall be demonstrated using EPA Method 13A or 13B during the initial compliance test and annually thereafter.

[PSD-FL-121(B)]

#### **Beryllium**

**C.46.** Compliance with the beryllium limits shall be demonstrated using EPA Method 29 during the initial compliance test and annually thereafter.

[PSD-FL-121(B)]

#### **Carbon Monoxide**

**C.47.** See Specific Condition **C.10**.

#### **Volatile Organic Compounds**

**C.48.** Compliance with the volatile organic compounds limits shall be demonstrated using EPA Method 18, 25 or 25A. This is an initial compliance test requirement and once satisfied, no further tests are required.

[PSD-FL-121(B)]

#### **Sulfuric Acid Mist**

**C.49.** Compliance with the sulfuric acid mist limits shall be demonstrated using EPA Method 8. This is an initial compliance test requirement and once satisfied, no further tests are required.

[PSD-FL-121(B)]

**C.50. Required Number of Test Runs.** For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

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

**C.51. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Higher loads are allowed for testing purposes as specified at 40 CFR 60.53b(b).

[Rules 62-297.310(2) & (2)(b), F.A.C.; and, PSD-FL-121(B)]

**C.52. Calculation of Emission Rate.** The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

**C.53. Applicable Test Procedures.**

**(a) Required Sampling Time.**

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

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observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

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

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

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

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

(e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.  
[Rule 62-297.310(4), F.A.C.]

**C.54. Required Stack Sampling Facilities**. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-1, Stack Sampling Facilities, attached to this permit.

[Rule 62-297.310(6), F.A.C.]

**C.55. Frequency of Compliance Tests**. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

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

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

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

- a. Visible emissions, if there is an applicable standard;

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- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.
5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
- (b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
- [Rule 62-297.310(7), F.A.C.; and, SIP approved]

### Compliance With Standards and Maintenance Requirements

- C.55.1.** The existing continuous emission monitoring system (CEMS) shall be used to demonstrate compliance with the permit emission limits for NO<sub>x</sub>, SO<sub>2</sub>, and CO specified in Specific Conditions C.26., C.23., and C.27., respectively. CEMS operational procedures and methodology as described in Specific Conditions C.10., C.41., C.44., C.59., C.61., C.62., and C.63. shall be utilized.
- [Applicant request.]
- C.56.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.
- [40 CFR 60.11(a)]
- C.57.** Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in Appendix A of 40 CFR 60, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5).
- [40 CFR 60.11(b)]
- C.58.** The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of EPA Method 9 observation data. If an owner or

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operator elects to submit COMS data for compliance with the opacity standard, he or she shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which EPA Method 9 data indicates noncompliance, the EPA Method 9 data will be used to determine opacity compliance.

[40 CFR 60.11(e)(5)]

#### Monitoring Requirements

**C.59.** For the purposes of 40 CFR 60.13, all continuous monitoring systems (CMS) required under applicable subparts shall be subject to the provisions of 40 CFR 60.13 upon promulgation of performance specifications for continuous monitoring systems under Appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, Appendix F of 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

[40 CFR 60.13(a)]

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

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

[40 CFR 60.13(c)(1)]

**C.61.** (1) Owners and operators of all continuous emission monitoring systems (CEMS) installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance



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specifications in Appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

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

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

**C.62.** Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems (CMS) shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

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

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

[40 CFR 60.13(e)(1) and (2)]

**C.63.** All continuous monitoring systems (CMS) or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of Appendix B of 40 CFR 60 shall be used.

[40 CFR 60.13(f)]

**C.64.** [reserved]

**C.65.** Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorded during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O<sub>2</sub> or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

[40 CFR 60.13(h)]

### **C.66. Determination of Process Variables.**

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

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

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

### **CEMS for Oxygen or Carbon Dioxide**

**C.67.** The owner or operator of an affected facility shall install, calibrate, maintain, and operate a continuous emission monitoring system and record the output of the system for measuring the oxygen or carbon dioxide content of the flue gas at each location where carbon monoxide, sulfur dioxide, or nitrogen oxides emissions are monitored and shall comply with the test procedures and test methods specified in paragraphs (1) through (7).

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

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

(3) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under 40 CFR 60.8.

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

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

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

(i) The fuel factor equation in Method 3B shall be used to determine the relationship between oxygen and carbon dioxide at a sampling location. Method 3, 3A, or 3B, as applicable, shall be used to determine the oxygen concentration at the same location as the carbon dioxide monitor.

(ii) Samples shall be taken for at least 30 minutes in each hour.

(iii) Each sample shall represent a 1-hour average.

(iv) A minimum of three runs shall be performed.

(7) The relationship between carbon dioxide and oxygen concentrations that is established in accordance with paragraph (6) shall be submitted to the EPA Administrator 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.

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

### **Recordkeeping and Reporting Requirements**

**C.68.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

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

[40 CFR 60.7(a)(4)]

**C.69.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

**C.70.** Each owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form [see 40 CFR 60.7(d)] to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or, the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or, the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate).

Written reports of excess emissions shall include the following information:

- (1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- (2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- (3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- (4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

[40 CFR 60.7(c)(1), (2), (3), and (4)]

**C.71.** The summary report form shall contain the information and be in the format shown in Figure 1 (attached) unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

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

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

[40 CFR 60.7(d)(1) and (2)]

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

**C.72.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

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

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

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

[40 CFR 60.7(e)(1)]

**C.73.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form

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suitable for inspection. The file shall be retained for at least **five (5)** years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f) and Rule 62-213.440(1)(b)2.b., F.A.C.]

**C.74. Notification of Construction or Reconstruction.** The owner or operator of an affected facility with a capacity to combust greater than 250 tons per day shall submit a notification of construction, which includes the information specified in paragraphs (1) through (4).

(1) Intent to construct.

(2) Planned initial startup date.

(3) The types of fuels that the owner or operator plans to combust in the affected facility.

(4) The municipal waste combustor unit capacity and supporting capacity calculations prepared in accordance with 40 CFR 60.58b(j).

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

**C.75.** The owner or operator of an affected facility subject to the standards under 40 CFR. 60.53b, 60.54b, and 60.55b shall maintain records of the information specified in paragraphs (1) through (15), as applicable, for each affected facility for a period of at least 5 years.

(1) The calendar date of each record.

(2) The emission concentrations and parameters measured using continuous monitoring systems as specified under paragraphs (i) and (ii).

(i) The measurements specified in paragraphs (A) through (D) shall be recorded and be available for submittal to the Administrator or review onsite by an inspector.

(A) All 6-minute average opacity levels as specified under 40 CFR 60.58b(c).

(B) All 1-hour average sulfur dioxide emission concentrations as specified under 40 CFR 60.58b(e).

(C) All 1-hour average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).

(D) All 1-hour average carbon monoxide emission concentrations, municipal waste combustor unit load measurements, and particulate matter control device inlet temperatures as specified under 40 CFR 60.58b(i).

(ii) The average concentrations and percent reductions, as applicable, specified in paragraphs

(2)(ii)(A) through (2)(ii)(D) shall be computed and recorded, and shall be available for submittal to the Administrator or review on-site by an inspector.

(A) All 24-hour daily geometric average sulfur dioxide emission concentrations and all 24-hour daily geometric average percent reductions in sulfur dioxide emissions as specified under 40 CFR 60.58b(e).

(B) All 24-hour daily arithmetic average nitrogen oxides emission concentrations as specified under 40 CFR 60.58b(h).

(C) All 4-hour block or 24-hour daily arithmetic average carbon monoxide emission concentrations, as applicable, as specified under 40 CFR 60.58b(i).

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

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

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

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- (ii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated as required under 40 CFR 60.58b(m)(1)(ii) during the initial dioxin/furan performance test and all subsequent annual performance tests, with supporting calculations.
  - (iii) The average carbon mass feed rate (in kilograms per hour or pounds per hour) estimated for each hour of operation as required under 40 CFR 60.58b(m)(3)(ii), with supporting calculations.
  - (iv) The total carbon usage for each calendar quarter estimated as specified by 40 CFR 60.58b(m)(3), with supporting calculations.
  - (v) Carbon injection system operating parameter data for the parameter(s) that are the primary indicator(s) of carbon feed rate (e.g., screw feeder speed).
- (5) [reserved]
- (6) Identification of the calendar dates for which the minimum number of hours of any of the data specified in paragraphs (i) through (v) have not been obtained including reasons for not obtaining sufficient data and a description of corrective actions taken.
- (i) Sulfur dioxide emissions data;
  - (ii) Nitrogen oxides emissions data;
  - (iii) Carbon monoxide emissions data;
  - (iv) Municipal waste combustor unit load data; and
  - (v) Particulate matter control device temperature data.
- (7) Identification of each occurrence that sulfur dioxide emissions data, nitrogen oxides emissions data (large municipal waste combustors only), or operational data (i.e., carbon monoxide emissions, unit load, and particulate matter control device temperature) have been excluded from the calculation of average emission concentrations or parameters, and the reasons for excluding the data.
- (8) The results of daily drift tests and quarterly accuracy determinations for sulfur dioxide, nitrogen oxides, and carbon monoxide continuous emission monitoring systems, as required under appendix F of this part, procedure 1.
- (9) The test reports documenting the results of the initial performance test and all annual performance tests listed in paragraphs (i) and (ii) shall be recorded along with supporting calculations.
- (i) The results of the initial performance test and all annual performance tests conducted to determine compliance with the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission limits.
  - (ii) For the initial dioxin/furan performance test and all subsequent dioxin/furan performance tests recorded under paragraph (9)(i), the maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device temperature (for each particulate matter control device).
- (10) [reserved]
- (12) The records specified in paragraphs (i) through (iii).
- (i) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been provisionally certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(a) including the dates of initial and renewal certifications and documentation of current certification.
  - (ii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have been fully certified by the American Society of Mechanical Engineers or an equivalent State-approved certification program as required by 40 CFR 60.54b(b) including the dates of initial and renewal certifications and documentation of current certification.
  - (iii) Records showing the names of the municipal waste combustor chief facility operator, shift supervisors, and control room operators who have completed the EPA municipal waste combustor

operator training course or a State-approved equivalent course as required by 40 CFR 60.54b(d) including documentation of training completion.

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

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

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

**C.76.** The owner or operator of an affected facility shall submit the information specified in paragraphs (1) through (6) in the initial performance test report.

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

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

(3) The performance evaluation of the continuous emission monitoring system using the applicable performance specifications in appendix B of this part.

(4) The maximum demonstrated municipal waste combustor unit load and maximum demonstrated particulate matter control device inlet temperature(s) established during the initial dioxin/furan performance test as recorded under 40 CFR 60.59b(d)(9).

(5) For affected facilities that apply activated carbon injection for mercury control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(i).

(6) For those affected facilities that apply activated carbon injection for dioxin/furan control, the owner or operator shall submit the average carbon mass feed rate recorded under 40 CFR 60.59b(d)(4)(ii).  
[40 CFR 60.39b and 40 CFR 60.59b(f)]

**C.77.** Following the first year of municipal combustor operation, the owner or operator of an affected facility shall submit an annual report including the information specified in paragraphs (1) through (4), as applicable, no later than February 1 of each year following the calendar year in which the data were collected (once the unit is subject to permitting requirements under Title V of the Act, the owner or operator of an affected facility must submit these reports semiannually).

(1) A summary of data collected for all pollutants and parameters regulated under this subpart, which includes the information specified in paragraphs (i) through (v).

(i) A list of the particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels achieved during the performance tests recorded under 40 CFR 60.59b (d)(9).

(ii) A list of the highest emission level recorded for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load level, and particulate matter control device inlet temperature based on the data recorded under 40 CFR 60.59b(d)(2)(ii)(A) through (d)(2)(ii)(D).

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(iii) List the highest opacity level measured, based on the data recorded under 40 CFR

60.59b(d)(2)(i)(A).

(iv) The total number of days that the minimum number of hours of data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature data were not obtained based on the data recorded under 40 CFR 60.59b(d)(6).

(v) The total number of hours that data for sulfur dioxide, nitrogen oxides, carbon monoxide, municipal waste combustor unit load, and particulate matter control device temperature were excluded from the calculation of average emission concentrations or parameters based on the data recorded under 40 CFR 60.59b(d)(7).

(2) The summary of data reported under paragraph (1) shall also provide the types of data specified in paragraphs (1)(i) through (1)(vi) for the calendar year preceding the year being reported, in order to provide the Administrator with a summary of the performance of the affected facility over a 2-year period.

(3) The summary of data including the information specified in paragraphs (1) and (2) shall highlight any emission or parameter levels that did not achieve the emission or parameter limits specified under this subpart.

(4) A notification of intent to begin the reduced dioxin/furan performance testing schedule specified in 40 CFR 60.58b(g)(5)(iii) during the following calendar year.

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

**C.78.** The owner or operator of an affected facility shall submit a semiannual report that includes the information specified in paragraphs (1) through (5) for any recorded pollutant or parameter that does not comply with the pollutant or parameter limit specified under this subpart, according to the schedule specified under paragraph (6).

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

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

(3) If the test reports recorded under 40 CFR 56.59b(d)(9) document any particulate matter, opacity, cadmium, lead, mercury, dioxins/furans, hydrogen chloride, and fugitive ash emission levels that were above the applicable pollutant limits, the semiannual report shall include a copy of the test report documenting the emission levels and the corrective actions taken.

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

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

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

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

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

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



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**C.79.** All reports specified under 40 CFR 60.59b(a), (b), (c), (f), (g), (h), and (i) shall be submitted as a paper copy, postmarked on or before the submittal dates specified under these paragraphs, and maintained onsite as a paper copy for a period of 5 years.

[40 CFR 60.39b and 40 CFR 60.59b(j)]

**C.80.** All records specified under 40 CFR 60.59b(d) and (e) shall be maintained onsite in either paper copy or computer-readable format, unless an alternative format is approved by the Administrator.

[40 CFR 60.39b and 40 CFR 60.59b(k)]

**C.81.** The Permittee shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit. This file shall include but not be limited to:

(a) Data collected from monitoring instruments, including CEM/COM systems, steam or feed water flow measurements and PM control device temperatures;

(b) Continuous steam flow or feed water flow records on 4-hour block average basis;

(c) Records on 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 burned for each unit each month; the equivalent heat input from natural gas for each unit each month, calculated using the heat value for natural gas provided by the natural gas supplier; and the annual records of the natural gas capacity factor for each unit;

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

(f) Amounts of activated carbon used for mercury control;

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

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

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

(j) Records demonstrating compliance with the percentage limitations on segregated solid wastes required by this permit.

[PSD-FL-121(B)]

**C.82.** If the owner or operator of an affected facility would prefer a different annual or semiannual date for submitting the periodic reports required by 40 CFR 60.59b(g), (h) and (i), then the dates may be changed by mutual agreement between the owner or operator and the Administrator according to the procedures specified in 40 CFR 60.19(c) of subpart A of this part.

[40 CFR 60.39b and 40 CFR 60.59b(l)]

**C.83.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

**C.84.** Submit to the Department a written report of emissions in excess of emission limiting for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations. All recorded data shall be maintained on file by the Source for a period of five years.

[Rule 62-213.440, F.A.C.]

### **C.85. Test Reports.**

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

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

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

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

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

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**C.86. 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 conditions C.6.6. and C.6.7.:

Each segregated load of non-MSW materials, that is subject to the percentage weight limitations of specific conditions C.6.6. and C.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 previous days in the current calendar month. At the end of each calendar month, the resultant monthly total weight of tires shall be divided by the total weight of all waste materials received in the same calendar month, and the resultant number shall be multiplied by 100 to express the ratio in percentage terms. The percentage computed shall be compared to the 3% limitation.

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

[PSD-FL-121(C)]

**C.87. Charging Rate Monitoring:** The average daily solid waste charging rate shall be determined on a monthly basis and recorded for each MWC unit. The daily charging rate shall be determined each month on an average daily basis for each 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 Facility, 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 per MWC unit for each day during the preceding calendar month.

[Rules 62-204.800(8) and 62-4.070(3), F.A.C.; 40 CFR 60.53(a); and, PSD-FL-121(B)]

### **Miscellaneous Requirements.**

**C.88. Definitions.** For the purposes of Rules 62-204.800(7), (8), and (9), F.A.C., the definitions contained in the various provisions of 40 CFR Parts 60 and 61, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Parts 60 and 61, shall mean the Secretary or the Secretary's designee except as noted in 40 CFR 61.157.

[40 CFR 60.2; and, Rules 62-204.800(7)(a), (8)(a)2. and (9)(a), F.A.C.]

**C.89. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not

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limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

**C.90. Activated Carbon Injection.** The owner or operator of an affected facility where activated carbon injection is used to comply with the mercury emission limit, or the dioxin/furan emission limits, or the dioxin/furan emission level specified in 40 CFR 60.58b(g)(5)(iii), shall follow the procedures specified in paragraphs (1) through (3).

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

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

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

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

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

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

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

[40 CFR 60.38b and 40 CFR 60.58b(m), as amended on May 10, 2006; and 0570261-008-AC, Specific Condition 1.]

**C.91. General Applicability and Definitions.** The Standards of Performance for New Stationary Sources adopted by reference in Rule 62-204.800(7), F.A.C., the Emission Guidelines for Existing Sources adopted by reference in Rule 62-204.800(8), F.A.C., and the National Emissions Standards for Hazardous Air Pollutants adopted by reference in Rule 62-204.800(9), F.A.C., shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a Standard of Performance, an Emission Guideline, or a National Emission Standard, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, Emission Guideline, or National Emission Standard, shall apply.

[Rules 62-204.800(7)(c), (8)(a)1., and (9)(c), F.A.C.]

**C.92.** The combustor boilers shall have a metal name plate affixed in a conspicuous place on the shell showing manufacturer, model number, type waste, and rated capacity.

[PSD-FL-121(B)]

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**C.93. Continuous Load Monitoring:** The owner or operator shall install, calibrate, maintain, and operate a steam flow meter or a feed water flow meter, measure steam (or feed water) 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 (or feed water) 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); and, PSD-FL-121(B)]

**C.94. Acid Rain Part Application.** For any unit which was a solid waste incinerator, burning less than 20 percent fossil fuel as described in 40 CFR 72.6(b)(7), adopted and incorporated by reference at Rule 62-204.800, F.A.C. the designated representative of the source containing the unit shall submit a complete Acid Rain Part application governing such unit to the Department before the later of January 1, 1998, or March 1 of the year following the three calendar year period in which the incinerator consumed 20 percent or more fossil fuel on a British thermal unit (BTU) basis.

[Rule 62-214.320(1)(h), F.A.C.]

**C.95. Continuous Emission Monitoring System (CEMS).** CEMS with recorders shall be installed, calibrated, maintained and operated for each unit, subject to review by FDEP, for the following pollutants and operational parameters:

Carbon Monoxide

Nitrogen Oxides

Opacity

Sulfur Dioxide (monitors shall be located both upstream and downstream of the baghouse for percent removal efficiency calculations)

Oxygen

Total Steam Production (lbs/hr, pressure, and temperature) or Feed water Flow Rate (lbs/hr)

Flue Gas Temperature (at the fabric filter inlet)

Carbon Injection System Operating Parameters

Power Generation (in MW)

Unless required in 40 CFR 60, Subpart Cb, operational data monitoring systems (steam production, baghouse inlet temperature, carbon injection system parameters and power generation) shall be calibrated annually and operated in accordance with good engineering practice.

[PSD-FL-121(C)]

**C.96.** The monitoring devices shall meet the requirements of Rule 62-297.520, F.A.C., 40 CFR 60.45 and 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5). Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F. Data on CEM/COM equipment specifications, manufacturer, type, calibration and maintenance needs, and its location after the economizer or in the air pollution control equipment outlet duct shall be provided to the Department's Southwest District office and the Hillsborough County Environmental Protection Commission for review at least 90 days prior to installation. Initial performance evaluations must be completed within 180 days after initial startup of each retrofitted unit.

[PSD-FL-121(C)]

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

#### Subsection D. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-100	Ash Building and Handling System

Flyash and bottom ash is collected and conveyed to the ash handling building. The ash handling system is completely enclosed or covered to decrease the potential for fugitive emissions. The ash is quenched and wetted before being temporarily stored in the ash handling facility and loaded onto a truck. A baghouse is located on the ash handling building as an added precaution for fugitive emissions.

{Permitting note(s): This emissions unit is regulated under NSPS - 40 CFR 60, Subpart Cb, Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That Are Constructed on or Before September 20, 1994, adopted and incorporated by reference, subject to provisions, in Rule 62-204.800(8)(b), F.A.C.; Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT). Note: This project is subject to the requirements of 40 CFR 60, Subpart Cb. This permit may refer to the requirements of 40 CFR 60, Subpart Eb, where these requirements are referenced by Subpart Cb.}

#### Compliance Assurance Monitoring (CAM) Applicability

Specific Condition D.4. contains a particulate matter (PM) emission limit for this emissions unit. The Applicant has provided justification demonstrating that the uncontrolled potential to emit PM is less than 100 tons per year for the emissions unit. Therefore, CAM does not apply to the control device for this emissions unit.

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

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

**D.1. Hours of Operation.** This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200(PTE), F.A.C.; and, PSD-FL-121(B)]

#### Emission Limitations and Standards

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

{Permitting Note: Unless otherwise specified, the averaging times for Specific Conditions D.2., D.4. and D.5. are based on the specified averaging time of the applicable test method.}

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### **Fugitive Ash Emissions**

#### **D.2. Fugitive Ash Emissions**

(a) On and after the date on which the initial performance test is completed or is required to be completed under 40 CFR 60.8 of Subpart A, no owner or operator of an affected facility shall cause to be discharged to the atmosphere visible emissions of combustion ash from an ash conveying system (including conveyor transfer points) in excess of 5 percent of the observation period (i.e., 9 minutes per 3-hour period), as determined by EPA Reference Method 22 observations as specified in 40 CFR 60.58b(k), except as provided in paragraphs (b) and (c). See specific condition **D.7**.

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

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

[40 CFR 60.36b and 40 CFR 60.55b]

**D.3.** 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. Unprocessed refuse storage areas which must be open for operational purposes (e.g., tipping floor of the refuse bunker while trucks are entering and leaving) will be under negative air pressure. 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.

[PSD-FL-121(B)]

**D.4.** PM emissions from the ash handling facility baghouse shall not exceed 1.63 pounds per hour.

[PSD-FL-121(B)]

**D.5.** Visible emissions from the ash handling facility baghouse shall not exceed 5 percent opacity.

[PSD-FL-121(B)]

### **Excess Emissions**

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

**D.6.** At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

**D.7.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the

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duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.  
[Rule 62-210.700(1), F.A.C.]

**D.8.** 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.]

### **Test Methods and Procedures**

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

### **Fugitive Ash**

**D.9.** The procedures specified in paragraphs (1) through (4) shall be used for determining compliance with the fugitive ash emission limit under 40 CFR 60.55b.

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

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

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

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

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

**D.10.** Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)]

**D.11. Particulate Matter.** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** See specific condition **D.5.**

[Rules 62-213.440 and 62-297.620(4), F.A.C.]



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**D.12. Visible Emissions.** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C.  
[Rule 62-297.401, F.A.C.]

**D.13.** In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit.

If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.  
[Rule 62-297.620(4), F.A.C.]

**D.14. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.  
[Rules 62-297.310(2) & (2)(b), F.A.C.]

**D.15. Applicable Test Procedures.**

**(a) Required Sampling Time.**

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

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

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

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

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

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

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**D.16. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

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

a. Did not operate; or

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

a. Visible emissions, if there is an applicable standard;

b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

c. Each NESHAP pollutant, if there is an applicable emission standard.

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

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

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

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

**D.17.** Compliance with standards in 40 CFR 60, other than opacity standards, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.  
[40 CFR 60.11(a)]

### **Monitoring of Operations**

#### **D.18. Determination of Process Variables.**

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

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

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

### **Recordkeeping and Reporting Requirements**

**D.19.** The owner or operator subject to the provisions of 40 CFR 60 shall furnish the Administrator written notification as follows:

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

[40 CFR 60.7(a)(4)]

**D.20.** The owner or operator subject to the provisions of 40 CFR 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or, any periods during which a continuous monitoring system or monitoring device is inoperative.

[40 CFR 60.7(b)]

**D.21.** (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

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

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period

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prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

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

[40 CFR 60.7(e)(1)]

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

**D.22.** Any owner or operator subject to the provisions of 40 CFR 60 shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7(f); and, Rule 62-213.440(1)(b)2.b., F.A.C.]

**D.23. Test Reports.**

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

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

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

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

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

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

**D.24. Malfunction Reporting.** In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.  
[Rule 62-210.700(6), F.A.C.]

### **Miscellaneous Requirements**

**D.25. Definitions.** For the purposes of Rules 62-204.800(7), (8), and (9), F.A.C., the definitions contained in the various provisions of 40 CFR Parts 60 and 61, adopted herein shall apply except that the term "Administrator" when used in 40 CFR Parts 60 and 61, shall mean the Secretary or the Secretary's designee except as noted in 40 CFR 61.157.

[40 CFR 60.2; and, Rules 62-204.800(7)(a), (8)(a)2., and, (9)(a), F.A.C.]

**D.26. Circumvention.** No owner or operator subject to the provisions of 40 CFR 60 shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

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**D.27. General Applicability and Definitions.** The Standards of Performance for New Stationary Sources adopted by reference in Rule 62-204.800(7), F.A.C., the Emission Guidelines for Existing Sources adopted by reference in Rule 62-204.800(8), F.A.C., and the National Emissions Standards for Hazardous Air Pollutants adopted by reference in Rule 62-204.800(9), F.A.C., shall be controlling over other standards in the air pollution rules of the Department except that any emissions limiting standard contained in or determined pursuant to the air pollution rules of the Department which is more stringent than one contained in a Standard of Performance, an Emission Guideline, or a National Emission Standard, or which regulates emissions of pollutants or emissions units not regulated by an applicable Standard of Performance, Emission Guideline, or National Emission Standard, shall apply. [Rules 62-204.800(7)(c), (8)(a)1., and (9)(c), F.A.C.]

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

#### Subsection E. This section addresses the following emissions unit(s).

E.U. ID No.	Brief Description
-101	Lime Storage Silo
-106	Dolomitic Lime Storage Silo

Lime used in the spray dryer absorbers for each municipal waste combustor is stored in silos. Emissions from each silo are controlled by baghouse filters.

{Permitting note(s): Emissions unit -101 is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT). Emissions unit -104 is regulated under Rule 62-296.320(4)(b), F.A.C., General Visible Emissions Standard.}

#### Compliance Assurance Monitoring (CAM) Applicability

Specific Condition **E.2.** contains particulate matter (PM) emission limits for these emission units. The Applicant has provided justification demonstrating that the uncontrolled potential to emit PM is less than 100 tons per year for each of the emissions units. Therefore, CAM does not apply to the control devices for these emissions units.

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

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

**E.1. Hours of Operation.** This emissions unit is allowed to operate 4,380 hours/year.  
[Applicant request dated May 5, 2006; and Rule 62-210.200(PTE), F.A.C.]

#### Emission Limitations and Standards

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

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

**E.2. Particulate Matter.** Particulate matter emissions shall not exceed:  
Emissions unit -101: 0.015 grains per dry standard cubic foot, front-half catch.  
Emissions unit -106: 6.32 pounds per hour and 0.39 tons per year.  
[PSD-FL-121(B) and 0570261-004-AC]

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### E.3. Visible Emissions.

Emissions unit -101: Visible emissions shall not exceed five (5) percent opacity.

Emissions unit -106: Visible emissions shall not be equal to or greater than 20 percent opacity.

[PSD-FL-121(B); 0570261-004-AC; and, Rule 62-296.320(4)(b)1., F.A.C.]

### Excess Emissions

**E.4.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

**E.5.** 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.]

### Test Methods and Procedures

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

**E.6. Particulate Matter.** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** See specific condition E.3.

[Rules 62-213.440 and 62-297.620(4), F.A.C.]

**E.7. Visible Emissions.** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C.

[Rule 62-297.401, F.A.C.]

**E.8.** In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit.

If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.

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



**E.9. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.  
[Rules 62-297.310(2) & (2)(b), F.A.C.]

**E.10. Applicable Test Procedures.**

**(a) Required Sampling Time.**

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

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

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

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

**E.11. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

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

- a Did not operate;

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

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
- c. Each NESHAP pollutant, if there is an applicable emission standard.

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

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

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

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

### Monitoring of Operations

#### **E.12. Determination of Process Variables.**

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

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

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

### **Recordkeeping and Reporting Requirements**

**E.13.** Any measurements, maintenance, reports, and records shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[Rule 62-213.440(1)(b)2.b., F.A.C.]

#### **E.14. Test Reports.**

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

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

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

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

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21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

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

**Subsection F. This section addresses the following emissions unit(s).**

<b>E.U. ID No.</b>	<b>Brief Description</b>
-102	Activated Carbon Storage Silo

Activated carbon used in the carbon injection system for each municipal waste combustor is stored in a silo. The activated carbon will be utilized for the control of mercury and dioxin/furans. Emissions from the silo are controlled by a baghouse.

{Permitting note(s): This emissions unit is regulated under Rule 62-212.400(5), F.A.C., Prevention of Significant Deterioration (PSD); and, Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT)}

#### Compliance Assurance Monitoring (CAM) Applicability

Specific Condition **F.2.** contains a particulate matter (PM) emission limit for this emissions unit. The Applicant has provided justification demonstrating that the uncontrolled potential to emit PM is less than 100 tons per year for the emissions unit. Therefore, CAM does not apply to the control device for this emissions unit.

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

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

**F.1. Hours of Operation.** This emissions unit is allowed to operate 4,380 hours/year.  
[Applicant request dated May 5, 2006; and Rule 62-210.200(PTE), F.A.C.]

#### Emission Limitations and Standards

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

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

**F.2. Particulate Matter.** Particulate matter emissions shall not exceed 0.015 grains per dry standard cubic foot, front-half catch.  
[PSD-FL-121(B)]

**F.3. Visible Emissions.** Visible emissions shall not exceed five (5) percent opacity.  
[PSD-FL-121(B)]

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#### Excess Emissions

**F.4.** Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.

[Rule 62-210.700(1), F.A.C.]

**F.5.** 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.]

#### Test Methods and Procedures

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

**F.6. Particulate Matter.** The test methods for particulate emissions shall be EPA Method 5 incorporated by reference in Chapter 62-297, F.A.C. **The permittee has elected to accept an alternate standard of five (5) percent opacity to waive the particulate matter compliance test requirement.** See specific condition F.3.

[Rules 62-213.440 and 62-297.620(4), F.A.C.]

**F.7. Visible Emissions.** EPA Method 9 shall be used to determine opacity compliance pursuant to Chapter 62-297, F.A.C.

[Rule 62-297.401, F.A.C.]

**F.8.** In the case of an emissions unit which has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse, the Secretary or the appropriate Director of District Management may waive any particulate matter compliance test requirements for such emissions unit specified in any otherwise applicable rule, and specify an alternative standard of 5% opacity. The waiver of compliance test requirements for a particulate emissions unit equipped with a baghouse, and the substitution of the visible emissions standard, shall be specified in the permit issued to the emissions unit.

If the Department has reason to believe that the particulate weight emission standard applicable to such an emissions unit is not being met, it shall require that compliance be demonstrated by the test method specified in the applicable rule.

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

**F.9. Operating Rate During Testing.** Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rules 62-297.310(2) & (2)(b), F.A.C.]

**F.10. Applicable Test Procedures.****(a) Required Sampling Time.**

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
  - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
  - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
  - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.

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

**F.11. Frequency of Compliance Tests.** The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

**(a) General Compliance Testing.**

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
  - a. Did not operate;
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
  - a. Visible emissions, if there is an applicable standard;
  - b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and
  - c. Each NESHAP pollutant, if there is an applicable emission standard.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact

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person who will be responsible for coordinating and having such test conducted for the owner or operator.

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

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

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

### Monitoring of Operations

#### **F.12. Determination of Process Variables.**

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

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

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

### Recordkeeping and Reporting Requirements

**F.13.** Any measurements, maintenance, reports, and records shall be retained for at least **5 (five)** years following the date of such measurements, maintenance, reports, and records.

[Rule 62-213.440(1)(b)2.b., F.A.C.]

#### **F.14. Test Reports.**

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

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

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

1. The type, location, and designation of the emissions unit tested.



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

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

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### Appendix U-1, List of Unregulated Emissions Units and/or Activities.

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Unregulated Emissions Units and/or Activities. An emissions unit which emits no “emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

<b>E.U. ID No.</b>	<b>Brief Description of Emissions Units and/or Activity</b>
-103	Cooling Tower
-104	Waste Water Treatment Plant
-105	NaOH Storage Tank

## Appendix II

### Appendix I-1, List of Insignificant Emissions Units and/or Activities.

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The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

#### Brief Description of Emissions Units and/or Activities

1. Fire and safety equipment
2. Paint usage of less than 6 gallons per day
3. Emergency generator
4. Mineral spirits drums
5. Bulk drum of cooling water treatment
6. Flanges and valves
7. 55 gallon oil storage drums
8. 300 and 449 gallon fuel storage tanks
9. Laboratory vent
10. Yard waste mulching operation
11. Emergency generator at Falkenburg Wastewater Treatment Plant
12. Sulfuric acid tank
13. Chlorine cylinders
14. Aqueous Ammonia (19%) Storage Tank

# Appendix II

**Table 1-1, Summary of Air Pollutant Standards and Terms**

Hillsborough County

Hillsborough County Resource Recovery Facility

Permit No. 0570261-006-AV

Facility ID No. 0570261

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

E.U. ID No.	Brief Description
[-001]	150 MMBtu/hr (nom) Municipal Waste Combustor & Auxiliary Burner - Unit 1
[-002]	150 MMBtu/hr (nom) Municipal Waste Combustor & Auxiliary Burner - Unit 2
[-003]	150 MMBtu/hr (nom) Municipal Waste Combustor & Auxiliary Burner - Unit 3

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions			Equivalent Emissions*			Regulatory Citation(s)	See permit condition(s)
			Standard(s)	lb/MMBtu	lbs./hour	TPY	lb/MMBtu	lbs./hour		
Particulate Matter	all	8,760	27 mg/DSCM or 0.012 gr/DSCF, corrected to 7% O <sub>2</sub>			17.96	0.024	4.1	40CFR60.33b(a)(1)(i); PSD-FL-121(C)	C.15.
Sulfur Dioxide	all	8,760	29 ppm, or 75% reduction corrected to 7% O <sub>2</sub>			143.9	0.190	32.85	40CFR60.33b(b)(3)(i); PSD-FL-121(C)	C.23.
Nitrogen Oxides	all	8,760	205 ppm, corrected to 7% O <sub>2</sub>			256	0.34	59.63	40CFR60.33b(d); PSD-FL-121(C)	C.26.
Lead	all	8,760	0.44 mg/DSCM, corrected to 7% O <sub>2</sub>			0.288	3.81E-04	0.065	40CFR60.33b(a)(4); PSD-FL-121(C)	C.22.
Fluoride	all	8,760	6.74 mg/DSCM, corrected to 7% O <sub>2</sub>			4.43	0.0059	1.03	PSD-FL-121(C)	C.28.
Mercury	all	8,760	0.070 mg/DSCM, corrected to 7% O <sub>2</sub> , or 85% reduction			0.087	1.17E-04	0.020	40CFR60.33b(a)(3); 62-296.416(3)(a)	C.18.
Beryllium	all	8,760	1.48 micrograms/DSCM, corrected to 7% O <sub>2</sub>			9.6E-04	1.27E-05	2.18E-04	40CFR60.34b(a); PSD-FL-121(C)	C.29.
Cadmium	all	8,760	0.040 mg/DSCM, corrected to 7% O <sub>2</sub>			0.026	3.47E-05	6.00E-03	40CFR60.33b(a)(2)(i)	C.17.
Hydrogen Chloride	all	8,760	29 ppm, corrected to 7% O <sub>2</sub> , or 95% reduction			74.43	0.099	17.00	40CFR60.33b(b)(3)(ii)	C.24.
Dioxins/Furans	all	8,760	30 nanograms/DSCM, corrected to 7% O <sub>2</sub>			1.96E-05	2.60E-08	4.5E-06	40CFR60.33b(c)(1)(ii)	C.25.
Carbon Monoxide	all	8,760	100 ppm, corrected to 7% O <sub>2</sub>			76.26	0.101	17.4	40CFR60.34b(a); PSD-FL-121(C)	C.27.
Volatile Organic Compounds	all	8,760	0.01 gr/DSCF, corrected to 12% CO <sub>2</sub> or 0.2 lb/ton				3.83	3.83	PSD-FL-104 & PSD-FL-121(C)	C.30.
Sulfuric Acid Mist	all	8,760	0.072 gr/DSCF, corrected to 12% CO <sub>2</sub> or 0.2 lb/ton				24.6	24.6	PSD-FL-121(C)	C.31.
Visible Emissions	all	8,760	10% opacity (6-min block average)	N/A	N/A	N/A			40CFR60.33b(a)(1)(iii)	C.16.

**Notes:**

\* The "Equivalent Emissions" listed are for informational purposes only.

The emissions limits in pounds per hour and tons per year are for Units 1 through 4, combined.

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**Table 2-1, Summary of Compliance Requirements**

Hillsborough County  
Hillsborough County Resource Recovery Facility

Permit No. **0570261-006-AV**  
Facility ID No. 0570261

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

<b>E.U. ID No.</b>	<b>Brief Description</b>
[-001]	150 MMBtu/hr (nom) Municipal Waste Combustor & Auxiliary Burner - Unit 1
[-002]	150 MMBtu/hr (nom) Municipal Waste Combustor & Auxiliary Burner - Unit 2
[-003]	150 MMBtu/hr (nom) Municipal Waste Combustor & Auxiliary Burner - Unit 3

Pollutant Name or Parameter	Fuel(s)	Compliance Method	Testing Time	Frequency	Min. Compliance	CMS**	See permit condition(s)
			Frequency	Base Date *	Test Duration		
Particulate Matter	all	Method 5	Annual	TBE	60 min.		<b>C.38.</b>
Sulfur Dioxide	all	Method 19 & 6, 6A or 6C	Annual	TBE	60 min.	Yes	<b>C.41.</b>
Nitrogen Oxides	all	Method 19 & 7, 7A, 7C, 7D or 7E	Annual	TBE	60 min.	Yes	<b>C.44.</b>
Lead	all	Method 29	Annual	TBE	60 min.		<b>C.39.</b>
Fluoride	all	Method 13 or 13A	Annual	TBE	60 min.		<b>C.45.</b>
Mercury	all	Method 29	Annual	TBE	60 min.		<b>C.39. &amp; C.40.</b>
Beryllium	all	Method 29	Annual	TBE	60 min.		<b>C.46.</b>
Cadmium	all	Method 29	Annual	TBE	60 min.		<b>C.39.</b>
Hydrogen Chloride	all	Method 26 or 26A	Annual	TBE	60 min.		<b>C.42.</b>
Dioxins/Furans	all	Method 23	Annual	TBE	60 min.		<b>C.43.</b>
Carbon Monoxide	all	Method 10, 10A or 10B	Annual	TBE	60 min.	Yes	<b>C.47.</b>
Visible Emissions	all	Method 9	Annual	TBE	30 min.	Yes	<b>C.38.</b>
Volatile Organic Compounds	all	Method 18, 25 or 25A	Initial	TBE	60 min.		<b>C.48.</b>
Sulfuric Acid Mist	all	Method 8	Initial	TBE	60 min.		<b>C.49.</b>

**Notes:**

\* The frequency base date is established for planning purposes only; see Rule 62-297.310, F.A.C., this date is to be established (TBE) by the initial compliance test.

\*\*CMS [=] continuous monitoring system

## Appendix II

### Appendix H-1: Permit History

Hillsborough County  
Hillsborough County Resource Recovery Facility

Permit No. **0570261-006-AV**  
Facility ID No. 0570261

E.U. ID No.	Description	Permit No.	Effective Date	Expiration Date	Project Type
All	Facility	0570261-001-AV	10/24/2000	10/24/2005	Initial
-001	Unit #1	0570261-002-AC	07/20/2000	12/19/2000	Construction (mod.)
-002	Unit #2				
-003	Unit #3				
-100	Ash Handling				
All	Facility	0570261-003-AV	04/23/2001	10/24/2005	Admin. Correction
-106	Dolomitic Lime Storage Silo	0570261-004-AC	03/27/2002	12/31/2002	Construction (new)
All	Facility	0570261-005-AV	04/30/2003	10/24/2005	Revision
All	Facility	0570261-006-AV			Renewal
-001 to -003	Unit #1, Unit #2, and Unit #3	0570261-008-AC		5/31/07	Construction