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Hillsborough County
Solid Waste Management Group
601 E. Kennedy Boulevard
Tampa, Florida 33602

Authorized Representative:
Ms. Patricia V. Berry, Interim Manager

Final Permit No. 0570261-015-AC/PSD-FL-121D
Air Construction Permit Revision -
Miscellaneous Revisions

Hillsborough County Resource Recovery Facility
Hillsborough County, Florida

PROJECT

This is the final air construction permit, which revises PSD-FL-121C, PSD-FL-369B and Permit No. 0570261-004-AC for MWC Units 1-4. Revisions are made to miscellaneous PSD/AC permit conditions. This existing plant is a mass-burn municipal waste combustor (MWC) plant categorized under Standard Industrial Classification No. 4953. This existing plant is located in Hillsborough County at 350 North Falkenburg Road in Tampa, Florida. 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.

This final permit is organized into the following sections: Section 1 (General Information) and Section 2 (Permit Revisions).

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.). This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is <u>not</u> subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

Upon issuance of this final permit, 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
For the Division of Air Resource Management
Electronic Signature

for Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

JFK/sa/sms

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination and Final Permit Revision) 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 the date indicated below to the persons listed below.

Ms. Patricia V. Berry, Hillsborough County: berryp@hillsboroughcounty.org
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Ms. Barbara Friday, DEP OPC: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
Ms. Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us (for reading file)

Clerk Stamp

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

FACILITY DESCRIPTION

This existing facility consists of: four municipal solid waste combustors (Unit Nos. 1, 2, 3 and 4) with auxiliary burners; lime storage and processing facilities; ash storage and processing facilities; cooling towers; and, ancillary support equipment.

The total capacity of the Hillsborough County Resource Recovery Facility is 1,800 tons/day (TPD) of municipal solid waste fuel with an average heating value of 4,500 Btu/lb. The gross nominal electric generating capacity of the facility is 47 megawatts (MW).

The facility is owned by Hillsborough County and is currently operated by Covanta Hillsborough, Inc. a subsidiary of Covanta Energy Corporation.

FACILITY REGULATORY CLASSIFICATION

- This facility is a major source of hazardous air pollutants (HAP).
- This facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400 (PSD), F.A.C.

PROPOSED PROJECT

As part of the project for the Title V air operation permit renewal (Project No. 0570261-014-AV), the applicant requested a concurrent air construction permit revision to change several underlying construction permit conditions.

The following permit conditions are revised as indicated. ~~Strikethrough~~ is used to denote the deletion of text. Double-underlines are used to denote the addition of text. All changes are emphasized with yellow highlight in the electronic document.

This facility has MWC (municipal waste combustor) type emissions units that are subject to the emission standards and limitations under the May 10, 2006 federal amendments to the 40 CFR 60 Subparts Cb/Eb.

1st Permit Being Modified: Permit No. 0570261-002-AC/PSD-FL-121C
Affected Emissions Units: Municipal Waste Combustor Nos. 1, 2 and 3 (E.U. ID Nos. 001, 002 & 003)

The affected Specific Condition Nos. III.B.8., 9. and 17. from PSD-FL-121C are hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

III.B.8. The following maximum emissions limits shall not be exceeded:

		EQUIVALENT EMISSIONS		
POLLUTANT	**40 CFR 60, SUBPART Cb EMISSION STANDARDS**	**LB/MMBtu**	**LB/HR**	**TON/YR**
PM (1) Particulate Matter	27 mg/dscm or 0.012 gr/dscf corrected to 7% O_2	0.024	4.1	17.96
VE Visible Emissions	10% (6 min. block avg.)			
Cd Cadmium	0.040 mg/dscm corrected to 7% O_2	3.47E-05	6.00E-03	0.026
~~**F** Fluorides~~	~~6.74 mg/dscm corrected to 7 % O_2~~	~~0.0059~~	~~1.00~~	~~4.43~~
~~**Be** (3) Beryllium~~	~~1.48 ug/dscm corrected to 7 % O_2~~	~~1.27E-06~~	~~2.18E-04~~	~~9.6E-04~~

. . .

Notes:

(1) This limit for PM is more restrictive than the emission limit for PM in 40 CFR 60.43b

~~(2) The NOx 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.~~

. . .

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.]

III.B.9. Stack Testing

Compliance tests [initial (I) and annual (A)] for SO_2, NO_x 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_2SO_4 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.]**

Method 5[(1)] 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[(2)] Determination of Dioxin/furan concentration from Stationary Sources (I) and (A).
Method 26[(3)] **or 26A** Determination of HCl emissions (I) and (A).
Method 29[(3)] Determination of Metals Emissions from Stationary Sources (I) and (A).
…

III.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)~~**]**

…

III.B.20. Reports and 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;~~

…

2nd Permit Being Modified: Permit No. 0570261-004-AC
Affected Emissions Units: Dolomitic Lime Storage Silo (E.U. ID No. 106)

The dolomitic lime storage silo (E.U. ID No. 106) was completely enclosed within the new air pollution control building; therefore, this silo is no longer an emissions unit. The emissions unit description and the affected Specific Condition Nos. III.2.-5. from Permit No. 0570261-004-AC are hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

Emissions Unit Description

E.U. ID No.	Brief Description
~~106~~	~~Dolomitic Lime Storage Silo~~

~~Lime used for ash conditioning for each for each municipal waste combustor is stored in a silo. Emissions from the silo are controlled by a baghouse filter.~~

Specific Condition Nos. III.2.-5.

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(4)(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.]~~

3rd Permit Being Modified: Permit No. 0570261-010-AC/PSD-FL-369B
Affected Emissions Units: Ash Building and Handling System (E.U. ID Nos. 100 & 112)

The applicant provided information from the scrubber manufacturer, Tri-Mer Corporation, that indicates a different differential pressure. The affected Specific Condition No. 3.C.3. from PSD-FL-369B is hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

Specific Condition No. 3.C.3.

C.3. Wet Scrubber Controls.

…

A Dwyer magnehelic pressure gauge/switch (or equivalent) shall be operated to measure the differential pressure across the unit control and control the water level to maintain a differential pressure of 8.0 ± ~~0~~1.5 inches of water column. In addition, an alarm system shall be operated to warn of high water levels and low water levels. [Rule 62-4.070(1)&(3), F.A.C.; Permit No. 0570261-010-AC/PSD-FL-369B, Specific Conditions 3.C.3. & 3.C.9.; and, Applicant Request/Design.]