# Florida Department of Environmental Protection

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**PERMITTEE**

Solid Waste Authority of Palm Beach County
North County Regional Resource Recovery Facility

Authorized Representative:
Mr. Mark Hammond, Executive Director

Final Permit No. 0990234-019-AC/PSD-FL-108I
Air Construction Permit Revision -
Miscellaneous Revisions

Palm Beach County, Florida

**PROJECT**

This is the final air construction permit, which revises Permit No. 0990234-006-AC/PSD-FL-108F for the Biosolids Pelletization Facility (BPF). Revisions are made to other miscellaneous PSD permit conditions. This facility is an existing municipal waste combustor plant categorized under Standard Industrial Classification No. 4953. This existing plant is located in Palm Beach County at 7501 North Jog Road, West Palm Beach; UTM Coordinates: Zone 17, 585.82 km East and 2960.474 km North; Latitude: 26° 45' 53" North and Longitude: 80° 08' 12" 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

Syed Arif for Jeff Koerner 10/10/2011
(Signature) (Date)

SYED ARIF
(Printed Name of Above Designee)

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 10/10/2011 to the persons listed below.

Mr. Mark Hammond, SWA: mhammond@swa.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.

Barbara J. Friday 10/10/2011
Clerk Date

## FACILITY DESCRIPTION

This existing facility is a municipal waste combustor plant designed to process 2,000 tons per day (TPD) of municipal solid waste (MSW). The facility burns processed MSW that is called "refuse derived fuel" (RDF). The RDF plant is equipped with three MSW processing lines, any two of which can handle the 2,000 TPD of incoming MSW. The boiler plant includes two Babcock & Wilcox (B&W) boilers (Nos. 1 and 2) with auxiliary burners. Each boiler was designed with a maximum heat input of 427.5 MMBtu/hr and a maximum steam production rating of 324,000 lbs/hour. At a reference heating value of 5,700 Btu/lb, this is equivalent to 900 TPD of RDF per boiler. The gross nominal electric generating capacity of the facility is 62 megawatts (MW).

Two landfills, a Class I Landfill and a Class III Landfill, each with its own gas collection system and flare are located at the facility. Additional activities at the facility include: a composting facility, material processing systems, a metals recovery system, storage and handling systems for RDF; lime storage and processing facilities; storage and handling systems for ash and ash treatment; and, cooling towers. A biosolids pelletization facility (BPF) is located adjacent to the existing landfill.

The facility is owned by the Solid Waste Authority and operated by Palm Beach Resource Recovery Corporation, a subsidiary of Babcock and Wilcox Corporation.

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

## 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. 0990234-020-AV), the applicant requested a concurrent air construction permit revision to change several underlying construction permit conditions found in two PSD permits.

Additional Requested Changes to PSD permits dated and received from CDM (on behalf of Applicant) on July 22, 2011.

The following permit conditions and emissions unit description 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:** PSD-FL-108A
**Affected Emissions Units:** Municipal Solid Waste Boiler Nos. 1 and 2 (E.U. ID Nos. 001 & 002)

The affected Specific Condition Nos. 3.f., 3.g., 4.i., 4.l., 4.o. and 9. from PSD-FL-108A are hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

~~3.f. Beryllium 7.3 x 10-7 lbs/MMBtu.~~

~~3.g. Fluoride: 0.0032 lbs/MMBtu.~~

4.i. EPA Method 26 shall be used for the determination of hydrochloric acid concentration or other methods approved by DEP and EPA. The permittee may modify the EPA Method 26 sampling train as follows: full-size (Greenburg-Smith design) impingers may be used in lieu of midget impingers; and, the two sodium hydroxide (NaOH) impingers may be replaced with one empty impinger.

~~4.l. Method 13A or 13B for determination of fluoride concentrations and associated moisture content, or other Methods approved by DER. One sample constitutes one test run.~~

~~4.o. Method 104 for determination of beryllium emission rate and associated moisture content, or other Methods approved by DER. One sample shall constitute one test run.~~

~~9. The annual capacity factor for the auxiliary gas burners, as determined by 40 CFR 60.43B(d), shall be less than 10%.~~

**2nd Permit Being Modified:** Permit No. 0990234-006-AC/PSD-FL-108F, as amended
**Affected Emissions Units:** Biosolids Pelletization Facility (BPF)
BPF Sludge Dryer Train Nos. 1 & 2 (E.U. ID Nos. 010 & 011)

The emissions unit description and the affected Specific Condition No. III.A.2. from Permit No. 0990234-006-AC/PSD-FL-108F are hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

**Emissions Unit Description**

The BPF will have two 337.5 wtpd {67.5 dry tpd} sludge drying trains Dryer Train #1 and #2, and related appurtenances. Each dryer train at the BPF ~~will~~may combust natural gas and/or landfill gas generated from the nearby landfill in a rotary drum dryer to dry sewage sludge, and then screen the dried sludge into marketable fertilizer pellets. ~~Natural gas will be used as an alternate fuel.~~ Each dryer has a rated capacity of 40 MMBTU/hr heat input {for either landfill or natural gas} plus an additional 2 MMBTU/hr heat input from each regenerative thermal oxidizer (RTO) for a total rated capacity of 84 MMBTU/hr heat input from the dryers and RTOs.

**Specific Condition No. III.A.2.**

**A.2.** Methods of Operation - Fuels. The dryers ~~shall~~may be fired ~~primarily~~ by natural gas and/or landfill gas ~~with natural gas used as an alternate fuel~~.
[Rules 62-4.160(2) and 62-210.228(PTE), F.A.C.]