

DRAFT PERMIT

PERMITTEE

Wheelabrator South Broward, Inc.
4400 South State Road 7
Ft. Lauderdale, Florida 33314

Authorized Representative:
Jairaj Gosine, Plant Manager

DEP File No. PSD-FL-105C (0112119-010-AC)
South Broward Waste-to-Energy Facility
Municipal Waste Combustors, Units 1, 2 and 3
Activated Carbon Injection System
Expiration date: June 30, 2009
Broward County, Florida

PROJECT AND LOCATION

The project is the installation of an activated carbon injection system on three municipal waste combustors designated as Units 1, 2 and 3 at the Wheelabrator South Broward Waste-to-Energy Facility. The purpose of the project is to reduce mercury emissions.

The facility is located in Broward County at 4400 South State Road 7 in Ft. Lauderdale. The UTM coordinates for this site are Zone 17, 579.54 kilometers (km) East and 2883.34 km North.

STATEMENT OF BASIS

This is a modification of the facility Prevention of Significant Deterioration (PSD) permit and 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 install the proposed 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.

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Joseph Kahn, Director
Division of Air Resource
Management

(Date)

SECTION I. FACILITY INFORMATION (DRAFT)

FACILITY DESCRIPTION

This facility consists of three municipal solid waste combustors (MWC); Units 1, 2 and 3 with auxiliary burners, lime storage and processing facilities, ash storage and processing facilities, a cooling tower, and ancillary support equipment. Each unit has a maximum capacity of 863 tons per day (TPD) of waste input. There is a metals recovery system which is a potential source of fugitive emissions. The nominal (generator nameplate) electric generating capacity of the facility is 67.6 megawatts (MW), which is sold to the local utility. Also included in this permit are miscellaneous insignificant emissions units and/or activities.

Each unit includes an acid gas, air toxics, and particulate emissions control system consisting of a lime spray dryer absorber and fabric filter baghouse (SDA/FF). Nitrogen oxides are controlled by a urea injection system that operates under the principle of selective non-catalytic reduction (SNCR).

EMISSIONS UNITS

This facility consists of the following emissions units (EU) listed below.

E.U. ID No.	Brief Description
001	863 TPD (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 1
002	863 TPD (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 2
003	863 TPD (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 3
004	236 Ton Lime Silo with a Baghouse
005	Ash Handling System

PROJECT

The project is the installation of a system to inject powdered activated carbon in the flue gas from Units 1, 2 and 3 at a location prior to the acid gas control device on each unit to provide further control of mercury emissions. The system will consist of:

- One powdered activated carbon storage silo sufficient for the three boilers and with a nominal storage capacity of 3,200 cubic feet;
- One vent dust baghouse collector used during pneumatic loading of the silo from tanker truck; and
- Rotary feeders, hoppers, screw feeders and blower assemblies.

REGULATORY CLASSIFICATION

The facility is a major Prevention of Significant Deterioration (PSD) stationary source in accordance with Rule 62-212.400, F.A.C. The proposed project does not trigger the PSD rules as a Major Stationary Source Modification or a determination of best available control technology (BACT). The project does require a modification of the initial facility PSD permit.

The facility is a Title V major source of air pollution in accordance with Chapter 213, Florida Administrative Code (F.A.C.).

SECTION I. FACILITY INFORMATION (DRAFT)

The facility operates units subject to the Standards of Performance for New Stationary Sources (NSPS) pursuant to 40 Code of Federal Regulations Part 60 (40 CFR 60). Units 1, 2 and 3 are subject to 40 CFR 60, Subpart Cb-Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994.

The existing facility is a major source of hazardous air pollutants (HAP). 40 CFR 60, Subpart Cb addresses the HAP control requirements pursuant to Section 129 of the Clean Air Act.

The facility was certified under the Florida Power Plant Siting Act (FPPSA), 403.501-518, F.S.

RELEVANT DOCUMENTS

The following relevant documents are not a part of this permit modification, but helped form the basis for this permitting action or include important additional requirements applicable to the facility:

- Permit PSD-FL-105 issued by the Environmental Protection Agency (EPA) Region 4 office on May 17, 1987 that authorized construction of the facility;
- An amendment to Permit PSD-FL-105 issued by the Department on March 21, 1996 that allowed use of EPA Method 7E to measure emissions of nitrogen oxides (NO_x) as an alternative to EPA Method 7;
- Permit Modification PSD-FL-105A issued by the Department on May 22, 1997 that allowed the use of EPA Method 29 to measure emissions of mercury (Hg);
- Permit Modification PSD-FL-105B issued by the Department on September 28, 1999 to install a selective non-catalytic reduction system, revise permit conditions consistent with 40 CFR 60, Subpart Cb, permit metals recovery operations, and define the fuel slate for the facility;
- Current facility Title V Air Operation Permit Renewal No. 0112119-010-AV issued on February 23, 2006;
- Application received on September 11, 2008 to install an activated carbon injection system; and,
- The Department's draft permit package including the Technical Evaluation and Preliminary Determination and dated September 26, 2008.

SECTION II. ADMINISTRATIVE REQUIREMENTS (DRAFT)

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 shall be submitted to the Southeast District Office. The mailing address and phone number of the Southeast District Office are: Department of Environmental Protection, Southeast District Office, 400 North Congress Avenue, Suite 200, West Palm Beach, Florida 33401. Telephone: (561)681-6632. Fax: (561)681-6790.
3. Appendices: The following Appendices are attached as part of this permit modification: Appendices Cb and 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, 62-214, 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. Construction and Expiration: The permit expiration date includes sufficient time to complete construction and submit an application for a Title V operation permit to the Department. For good cause, the permittee may request that this PSD permit modification 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.]
8. Title V Permit: This PSD permit modification authorizes installation of the activated carbon injection project. This project involves no changes in the descriptions, applicable requirements, or conditions of the facility Title V Operation Permit at this time. However, the permittee is required to apply for a revised Title V operation permit by October 31, 2008 to incorporate a revision promulgated on May 10, 2006 by EPA of 40 CFR 60, Subpart Cb and as incorporated in Section 62-204.204.800(b), F.A.C.

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS (DRAFT)

Units 1, 2 and 3 – Municipal Waste Combustors

The proposed project affects the following existing units:

E.U. ID No.	Brief Description
001	863 TPD (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 1
002	863 TPD (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 2
003	863 TPD (maximum) Municipal Waste Combustor & Auxiliary Burners - Unit 3

ADMINISTRATIVE REQUIREMENTS

1. Previous Permit Conditions: This PSD permit modification authorizes the installation of an activated carbon injection system on three municipal waste combustors designated as Units 1, 2 and 3. The following conditions are in addition to those of any other PSD permits, modifications thereto or operation permits. [Rule 62-4.210, F.A.C.]

CONSTRUCTION ACTIVITIES

2. Installation of Powdered Activated Carbon Injection (ACI) System: The permittee shall install a system to inject powdered activated carbon in the flue gas from the boiler at a location prior to the acid gas control device to provide further control of mercury consisting of:
 - a. One powdered activated carbon storage silo sufficient for the three boilers and with a nominal storage capacity of 3,200 cubic feet;
 - b. One vent dust baghouse collector used during pneumatic loading of the silo from tanker truck; and
 - c. Rotary feeders, hoppers, screw feeders and blower assemblies.

(Applicants Request)

3. Modification of PSD Permit: Permit PSD-FL-105, Condition 8, Air Pollution Control Equipment, is hereby modified by the addition of the following provision:
 - c. The facility shall be equipped with an ACI system as described above to provide additional control of mercury emissions from each boiler.

EMISSION REQUIREMENTS

4. Emission Limits and Testing Requirements: No additional limits or testing requirements are applicable to Units 1, 2 and 3 as a result of this project.

{Permitting Note: The applicable emission limits are specified or maintained in the PSD permit, modifications thereto and the facility Title V operation permit.}

NOTIFICATIONS AND REPORTS

5. Notifications: Within one week of beginning construction, the permittee shall notify the Compliance Authority that the project has commenced and provide a general schedule of construction activities. Within one week of completing construction, the permittee shall notify the Compliance Authority that the project has concluded and provide a general schedule of bringing the unit back on line. [Rule 62-4.210, F.A.C.]

SECTION IV. APPENDICES (DRAFT)

Appendix Cb- Emissions Guidelines for Large Municipal Waste Combustors

Applicability of 40 CFR 60, Subpart Cb - Emissions Guidelines and Compliance Times for Large Municipal Waste Combustors That are Constructed on or Before September 20, 1994.

Wheelabrator South Broward Units 1, 2 and 3 are Large Municipal Waste Combustor (Large MWC) because they are waste combustion units that are each capable of combusting more than 250 tons per day (TPD) of municipal solid waste (MSW).

The rules applicable to Large MWC are given at 40 CFR 60, Sections 60.30b through 60.39b. Units 1, 2 and 3 are Mass Burn Waterwall Furnaces. 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 carbon monoxide (CO), nitrogen oxides (NO_x), sulfur dioxide (SO₂), hydrogen chloride (HCl), particulate matter (PM), dioxin/furan (D/F), opacity, cadmium (Cd), mercury (Hg), and lead (Pb). The various emission monitoring and operational parameters are included therein.

Subpart 40 CFR 60, Subpart Cb was revised on May 10, 2006. Units 1, 2 and 3 are subject to those revisions. The Department is reopening the Title V operation permits or processing applications to incorporate the updated requirements in each facility subject to Subpart Cb. The updated requirements will be included in the revised permits.

The revised version of 40 CFR 60, Subpart Cb is available at:

<http://ecfr.gpoaccess.gov/cgi/t/text/text-idx?c=ecfr&sid=9f85cb975ad1fc48e7b80bf5309b6e08&rgn=div6&view=text&node=40:6.0.1.1.1.5&idno=40>

SECTION IV. APPENDICES (DRAFT)

Appendix GC - General Conditions

- 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.

SECTION IV. APPENDICES (DRAFT)

Appendix GC - 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 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 (not applicable to project);
 - (b) Determination of Prevention of Significant Deterioration (not applicable to project); and
 - (c) Compliance with New Source Performance Standards (not applicable to project).
- 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.