

## MEMORANDUM

To: Joseph Kahn

From: Trina L. Vielhauer

Subject: Miami-Dade County Resource Recovery Facility  
Air Construction Permit No. 0250348-006-AC

Date: March 21, 2007

Attached is the final air construction permit for the subject facility. This permit affects the refuse derived fuel (RDF) spreader stoker combustors at the facility. Specifically, the permit modifies and adds clarification language to the specific condition that details allowed excess emissions resulting from startup, shutdown, or malfunction. It also establishes these changes as applicable Title V Air Operation Permit conditions.

The Department distributed an "Intent to Issue Permit" package on January 31, 2007. The applicant published the "Public Notice of Intent to Issue" in the Miami Daily Business Review on February 26, 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.

I recommend your signature.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION

NOTICE OF FINAL PERMIT

*Electronically sent -- Received Receipt requested.*

In the Matter of an  
Application for Permit by:

Miami-Dade Department of Solid Waste Management  
2525 N.W. 62<sup>nd</sup> Street, 5<sup>th</sup> Floor  
Miami, Florida 33147

DEP File No. 0250348-006-AC, PSD-FL-006(E)  
Miami-Dade County Resource Recovery Facility  
Allowed Excess Emissions Resulting from  
Startup, Shutdown, or Malfunction

*Authorized Representative:*

Mr. Tom Morello, Facility Manager  
Montenay Power Corporation

Enclosed is Final Air Construction Permit No. 0250348-006-AC that modifies and adds clarification language to the specific condition that details allowed excess emissions resulting from startup, shutdown, or malfunction at the facility. It also establishes these changes as applicable Title V Air Operation Permit conditions. The facility is located at 6990 Northwest 97<sup>th</sup> Avenue, Miami-Dade 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 (30) days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief  
Bureau of Air Regulation

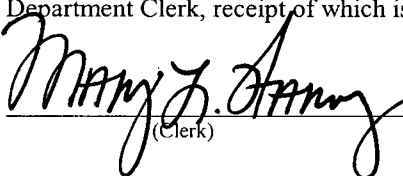
CERTIFICATE OF SERVICE

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 3/27/07 to the person(s) listed:

Tom Morello, Montenay Power Corporation: [Tom.Morello@veoliaes.com](mailto:Tom.Morello@veoliaes.com)  
Lee S. Casey, Department of Solid Waste Management, Miami-Dade County: [le1@miamidade.gov](mailto:le1@miamidade.gov)  
David Buff, P.E., Golder Associates, Inc. [DBuff@Golder.com](mailto:DBuff@Golder.com)  
Darrel Graziani, P.E., Southeast District Office: [darrel.graziani@dep.state.fl.us](mailto:darrel.graziani@dep.state.fl.us)  
Anetha Lue, P.E., Montenay Power Corporation: [anetha.lue@veoliaes.com](mailto:anetha.lue@veoliaes.com)  
Jim Little, EPA Region 4: [little.james@epa.gov](mailto:little.james@epa.gov)  
Gracy Danois, EPA Region 4: [danois.gracy@epa.gov](mailto:danois.gracy@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.

  
(Clerk)

3/27/07  
(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

Miami-Dade Department of Solid Waste Management  
2525 N.W. 62<sup>nd</sup> Street, 5<sup>th</sup> Floor  
Miami, Florida 33147

*Authorized Representative:*  
Mr. Tom Morello, Facility Manager

Air Permit No. 0250348-006-AC  
Miami-Dade County Resource Recovery Facility  
Facility ID No. 0250348  
SIC No. 4953  
Excess Emissions from Startup,  
Shutdown, or Malfunction  
Permit Expires: April 30, 2007

## PROJECT AND LOCATION

This permit affects the refuse derived fuel (RDF) spreader stoker combustors at the facility. Specifically, the permit modifies and adds clarification language to the specific condition that details allowed excess emissions resulting from startup, shutdown, or malfunction. It also establishes these changes as applicable Title V Air Operation Permit conditions. The equipment is installed at the Miami-Dade County Resource Recovery Facility, which is located in Miami-Dade County at 6990 Northwest 97<sup>th</sup> Avenue.

## 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

 3/26/07  
Joseph Kahn, Director  
Division of Air Resource  
Management (Date)

## **FINAL DETERMINATION**

### **PERMITTEE**

Miami-Dade Department of Solid Waste Management  
2525 N.W. 62<sup>nd</sup> Street, 5<sup>th</sup> Floor  
Miami, Florida 33147

### **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. 0250348-006-AC (PSD-FL-006(E))

Miami-Dade County Resource Recovery Facility

This Air Construction Permit affects the refuse derived fuel (RDF) spreader stoker combustors at the facility. Specifically, the permit modifies and adds clarification language to the specific condition that details allowed excess emissions resulting from startup, shutdown, or malfunction. It also establishes these changes as applicable Title V Air Operation Permit conditions.

### **NOTICE AND PUBLICATION**

The Department distributed an "Intent to Issue Permit" package on January 31, 2007. The applicant published the "Public Notice of Intent to Issue" in the Miami Daily Business Review on February 26, 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.

## 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 Southeast District Office and the Miami-Dade County Department of Environmental Resources Management. The mailing address and phone number of the Southeast District Office is: 400 North Congress Avenue, West Palm Beach, Florida 33401, Telephone: 561/681-6600. The mailing address and phone number of the Miami-Dade County Department of Environmental Resources Management is: 33 Southwest Second Avenue, Suite 900 Miami, Florida 33130-1540, Telephone: 305/372-6925.
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.]

### SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

#### EMISSIONS UNITS SPECIFIC CONDITIONS

1. General Conditions: The owner and operator is subject to, and shall operate under the attached General Permit Conditions 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.]

#### APPLICABLE STANDARDS AND REGULATIONS

2. Unless otherwise indicated in this permit, the construction and operation of the subject emission 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, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297.
3. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
4. The facility is subject to all of the requirements specified in Title V Air Operation Permit No. 0250348-005-AV.

#### EXCESS EMISSIONS

5. Allowed Excess Emissions resulting from Warm-up, Startup, Shutdown, or Malfunction:
  - (1) Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided 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 a 24-hour period unless specifically authorized by the Department for longer duration. As referenced below, the Department specifically authorizes a longer duration.
    - a. The emission limitations for this unit shall apply at all times, except during periods of warm-up, startup, shutdown, or malfunctions, provided that the duration of excess emissions during startup, shutdown, or malfunction does not exceed three hours in a 24-hour period.
    - b. The startup and warm-up periods are defined to be consistent with the applicable federal new source performance standards, as described in specific condition **A.43.** of the facility's current Title V Air Operation Permit.
    - c. The shutdown period shall be defined as to commence with the cessation of charging municipal waste to the boiler and ending when steam flow decreases to 70,000 lbs/hr and 13.5% flue gas oxygen, as programmed into the Data Acquisition System (DAS). (That is, when the unit's steam flow is less than 70,000 lbs/hr and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)
    - d. The exclusion of CEMS data for purposes of allowed excess emissions and demonstrating compliance with an emissions standard shall be based on a one-hour block average period.
  - (2) A *warm-up period* is defined to be consistent with the applicable federal new source performance standards as in specific condition **A.43.** The emission limitations for this unit shall apply at all times, except during periods of warm-up (but only when firing natural gas or propane exclusively), startup, shutdown, or malfunctions, during which the duration of excess emissions shall not exceed three hours in a 24-hour period. During all warm-ups, startups, shutdowns, and malfunctions, the owner/operator shall use best operational practices to minimize air pollutant emissions.
  - (3) The commencement of startup is programmed into the Data Acquisition System (DAS) as a steam flow of 70,000 lbs/hr and 13.5% flue gas oxygen. (That is, when the unit's steam flow is greater

### SECTION 3. EMISSIONS UNITS SPECIFIC CONDITIONS

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than or equal to 70,000 lbs/hr and the flue gas oxygen is less than or equal to 13.5%, the DAS receives the 'unit on line' signal, and the unit is considered no longer in warm-up.)

- (4) The shutdown commences with the cessation of charging municipal waste to the boiler and ends when steam flow decreases to 70,000 lbs/hr and 13.5% flue gas oxygen, as programmed into the DAS. (That is, when the unit's steam flow is less than 70,000 lbs/hr and the flue gas oxygen is greater than 13.5%, the DAS receives the 'unit off line' signal.)
- (5) During warm-up, *to provide thermal protection to the grate*, the refuse derived fuel (RDF) shall be fired in the unit for a period of no longer than 2 hours.
- (6) During a routine warm-up event, propane shall not be used for more than 5 hours. During non-routine warm-up events, propane shall not be used for more than 11 hours. Descriptions of these two types of events follow.

#### Routine Warm-up Event:

- Routine Cold Startup: A cold startup occurs after a long period (more than 12 hours) of the boiler being offline. Propane is fired during the warm-up to allow the metal to be heated at a safe rate of approximately 100 degrees F per hour. Following warm-up, the startup begins when the steam flow rate reaches 70,000 lb/hr.

#### Non-routine Warm-up Event:

- Extended Cold Start-up: Approximately once per year, each unit has an extended cold start-up. This is done to condition the boiler internal surfaces after extensive boiler tube or metal surface work such as resurfacing. The surface conditioning procedure involves the burning of propane gas for a maximum of 10 hours before RDF is used. Once RDF is introduced, the timing of events is similar to the routine cold start-up as described above.

For the purposes of this specific condition, a malfunction means 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.

[Rule 62-210.700(1), F.A.C.; PSD-FL-006(E); Rule 62-210.200(194), F.A.C., Definitions; and Applicant request dated March 30, 2005.]

## SECTION 1. GENERAL INFORMATION

### FACILITY AND PROJECT DESCRIPTION

The Miami-Dade Department of Solid Waste Management operates the Miami-Dade County Resource Recovery Facility, which is a Refuse System (SIC No. 4953). The plant currently consists of: Four identical Zurn Refuse Derived Fuel (RDF) Spreader Stoker Combustion Units 1 thru 4, with auxiliary burners, and a cooling tower. The facility's primary activities are garbage and trash receiving and processing (including a metals recovery system); fuel handling and storage; biomass production and export; RDF, natural gas, and propane combustion; ash storage and processing, including a monofill ash landfill; and maintaining ancillary support equipment. The facility has upgraded air pollution control system pursuant to the requirements of 40 CFR 60, Subpart Cb - Emissions Guidelines and Compliance Schedules for Municipal Waste Combustors That Are Constructed on or Before December 19, 1995, for the existing four RDF boilers built in 1987-1989. The modifications included changes to the overfire air system, fuel feed system, and associated fuel distribution system. The electrostatic precipitators were replaced with fabric filters, spray dryer absorbers and activated carbon injection units; and a selective non-catalytic reduction system was installed to comply with 40 CFR 60, Subpart Cb.

This permit affects the refuse derived fuel (RDF) spreader stoker combustors at the facility. Specifically, the permit modifies and adds clarification language to the specific condition that details allowed excess emissions resulting from startup, shutdown, or malfunction. It also establishes these changes as applicable Title V Air Operation Permit conditions.

ID	Emission Unit Description
001	RDF Spreader Stoker Combustor & Auxiliary Burners
002	RDF Spreader Stoker Combustor & Auxiliary Burners
003	RDF Spreader Stoker Combustor & Auxiliary Burners
004	RDF Spreader Stoker Combustor & Auxiliary Burners

### 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 DOES OPERATE units subject to New Source Performance Standards in 40 CFR 60.

NESHAP: 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 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

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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 (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.