

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION
NOTICE OF PERMIT[S]

In the matter of an
Application for Permit by:

DER File No. PSD-FL-108A
Palm Beach County

Solid Waste Authority of Palm
Beach County
7501 North Jog Road
West Palm Beach, FL 33412

Enclosed is Permit Modification Number PSD-FL-108A to allow the two (2) existing RDF boilers to operate at their maximum design input rating of 412.5 MMBtu's per hour, at the North County Regional Resource Recovery Facility in Palm Beach County, Florida, issued pursuant to section(s) 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

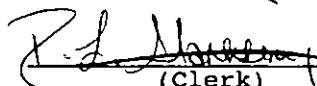

C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and all copies were mailed before the close of business on 1-14-92 to the listed persons.

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED,
on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.


(Clerk)

1-14-92
(Date)

Copies furnished to:

J. Harper, EPA
S. Brooks, SE District
C. Shaver NPS
J. Stormer, HRS

Final Determination

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

Modification
Permit No. PSD-FL-108A

Department of Environmental Regulation
Division of Air Resources Management
Bureau of Air Regulation

January 7, 1992

FINAL DETERMINATION

Solid Waste Authority (SWA) of Palm Beach County submitted an application for a permit modification on November 29, 1989. The North County Regional Resource Recovery Facility is currently authorized to process 2,000 tons per day of municipal solid waste with an annual throughput of 624,000 tons. The modifications requested would allow the maximum boiler heat input to increase from 360 MMBtu/hr to 412.5 MMBtu/hr. Modifications to the nitrogen oxide (NO_x) and carbon monoxide (CO) emission rates were also requested.

The Florida Department of Environmental Regulation (FDER) reviewed the application and issued a Preliminary Determination and Technical Evaluation on October 16, 1991. Modifications included raising the maximum boiler heat input rate from 360 to 412.5 MMBtu/hr, raising the NO_x emission rate from 0.32 to 0.48 lbs/MMBtu, and modifying the CO emission rate to conform with EPA's guidelines for Existing Municipal Waste Combustors. The notice of intent to issue was published in the Palm Beach Post on October 20, 1991.

The U.S. Environmental Protection Agency (EPA) submitted a letter commenting on the Preliminary Determination on November 20, 1991. The first comment made by the EPA was to modify the permit conditions for hydrogen chloride and sulfur dioxide to read the same as the federal guidelines. As a result, the words, "whichever is less stringent" were added to specific conditions 3.i and 3.j of the permit. In accordance with federal guidelines, the EPA commented that the opacity from each unit should not exceed 10%, for a 6-minute average. Specific condition 3.k was modified accordingly. The EPA also requested that the Department include an emission standard for dioxins and furans. This standard was added to the permit as specific condition 3.l and limits the emissions to 60 nanograms per standard cubic meter, corrected to 7% O₂. In accordance with this emission limitation, Method 23 has been added as specific condition 4.q.

On October 22, 1991, the Department's Southeast District (SED) office submitted a letter commenting on the Preliminary Determination. It was suggested that either an expiration date be specified or that specific condition 21 be modified to reflect some other basis for the operation permit application deadline. A review of the Preliminary Determination indicated that conditions 20 and 21 were inadvertently included in the permit (these conditions are not included for permits being reviewed under the Power Plant Siting Process). Specific conditions 20 and 21 have been removed from the permit. The SED's letter also expressed concern over the apparent increase in the mercury and VOC emission limits. After reviewing the permit history of this facility, the Department concluded that the emission limits in

the original PSD construction permit (1986) were extrapolated from the emission limits in the Power Plant Siting Certification (PPSC) in such a way as to allow higher total emissions of mercury and VOCs from the facility. The PSD permit modification (1991) used the emission limits from the PSD construction permit (1986) and not the PPSC. Compliance testing conducted for the North County Resource Recovery Facility demonstrated that neither unit tested higher than 21% of the stricter limit for mercury or 5% of the stricter limit for VOCs. As this is the case, the mercury emission limit in specific condition 3.e was changed from 0.00036 lbs/MMBtu to 0.00024 lbs/MMBtu and the VOC emission limit in specific condition 3.h was changed from 0.023 lbs/MMBtu to 0.016 lbs/MMBtu.

On November 4, 1991, the Department received a comment letter regarding the Preliminary Determination from the Palm Beach County Health Unit (PBCHU). In this letter, the PBCHU recommended including a dioxin/furan emission limit according to the federal guidelines. Also, the PBCHU concurred with the SED's comments regarding the mercury and VOC emission limits. All comments made by the PBCHU were previously addressed.

The final action of the Department will be to issue the modified permit (PSD-FL-108A) as proposed in the Technical Evaluation and Preliminary Determination except for the changes discussed above.



Florida Department of Environmental Regulation

Twin Towers Office Bldg. • 2600 Blair Stone Road • Tallahassee, Florida 32399-2400

Lawton Chiles, Governor

Carol M. Browner, Secretary

PERMITTEE:
Solid Waste Authority of Palm
Beach County
7501 North Jog Road
West Palm Beach, FL 33412

Permit Number: PSD-FL-108A
Expiration Date: None
County: Palm Beach
Latitude/Longitude: 26°46'00"N
80°08'45"W
Project: North County Regional
Resource Recovery Facility

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 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 drawings, plans, and other documents attached hereto or on file with the Department and made a part hereof and specifically described as follows:

The North County Regional Resource Recovery Facility is authorized to operate the two (2) existing RDF boilers to their maximum design input rating of 412.5 MMBtu's per hour with a maximum steam rating of 324,000 lbs. per hour, subject to the General and Specific Conditions stated herein.

This permit shall supercede the original PSD permit (PSD-FL-108) issued to the North County Regional Resource Recovery Facility.

The Resource Recovery Facility consists of three major plants: the RDF manufacturing plant, the boiler plant and the electric generating plant.

The facility is designed to process 2,000 TPD of municipal solid waste (MSW) with an annual throughput of 624,000 tons. The RDF manufacturing plant is equipped with three MSW processing lines, any two of which can handle 2,000 TPD of incoming MSW. Excess capacity and redundancy were built into the processing plant to assure that the throughput requirements could be met with one processing line down for planned or unplanned maintenance.

The boiler plant includes two B&W boilers, each designed to combust up to 900 TPD of RDF with a reference heating value of 5,500 Btu/lb (412.5 MMBtu/hr). Actual RDF heating values typically range from 4,500 to 6,200 Btu/lb respectively.

Emissions from each boiler are controlled by a Joy Technologies spray dryer absorber followed by a Joy/BSH Krefeld four field electrostatic precipitator. Each precipitator has a gas flow

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rating of 198,000 ACFM and is designed to operate with three of four fields in service.

Flue gas emissions (opacity, O₂, SO₂, CO and NO_x) from each unit are monitored with an Enviroplan CEM system.

The turbine-generator plant has a nominal output rating of 62 MW, and is matched to the full output capacity of the boilers.

The source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Solid Waste Authority application for modification received November 29, 1989.
2. Solid Waste Authority letter dated October 5, 1990.
3. HRS letter dated October 8, 1990.
4. Solid Waste Authority letter dated December 3, 1990.
5. HRS letter dated May 24, 1991.
6. Solid Waste Authority letter dated July 17, 1991.
7. Southeast District Office letter dated October 22, 1991.
8. HRS letter dated October 29, 1991.
9. Solid Waste Authority letter dated November 5, 1991.
10. Solid Waste Authority letter dated November 6, 1991
11. EPA letter dated November 20, 1991.

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Beach County

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Expiration Date: None

GENERAL CONDITIONS:

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 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, 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

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GENERAL CONDITIONS:

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 any 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

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Expiration Date: None

GENERAL CONDITIONS:

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 17-4.120 and 17-30.300, 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:

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

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 for

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GENERAL CONDITIONS:

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:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates 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 corrected promptly.

SPECIFIC CONDITIONS:

1. Before the third unit commences construction, a new PSD construction permit must be submitted to the DER, since more than 18 months have elapsed from the date construction permit PSD-FL-108 was issued on December 16, 1986.

2. The Solid Waste Authority's North County Regional Resource Recovery Facility shall be allowed to operate continuously (i.e., 8,760 hrs/yr).

3. Stack emissions from each unit shall not exceed the following limits.

- a. Particulate matter: 0.015 grains per dscf corrected to 7% O₂.
- b. NO_x: 0.48 lbs/MMBtu. (24-hour block average)
- c. Carbon Monoxide: 400 ppmvd corrected to 7% O₂ (1-hour average); 200 ppmvd corrected to 7% O₂ (24-hour average).

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SPECIFIC CONDITIONS:

- d. Lead: 4.0×10^{-4} lbs/MMBtu.
 - e. Mercury: 2.4×10^{-4} lbs/MMBtu.
 - f. Beryllium 7.3×10^{-7} lbs/MMBtu.
 - g. Fluoride: 0.0032 lbs/MMBtu.
 - h. VOC: 0.016 lbs/MMBtu.
 - i. SO₂: 70% removal or 30 ppmvd at 7% O₂, whichever is less stringent (24-hour geometric mean).
 - j. Hydrogen Chloride: 90% removal or 25 ppmvd at 7% O₂, whichever is less stringent (3 run test average).
 - k. The opacity from each unit shall not exceed 10%, 6 minute average. CEM readings when the process is not operating shall be excluded from averaging calculations.
 - l. Dioxins/Furans: Emissions of total (tetra thru octa-chlorinated dibenzo-p dioxins and dibenzofurans) shall not exceed 60 ng/dscm at 7% O₂.
4. Each unit shall be tested within 180 days of issuance of this permit, and annually thereafter, to demonstrate compliance with emission standards mentioned in specific condition No. 3, using the following EPA test methods contained in 40 CFR 60, Appendix A, and in accordance with F.A.C. Section 17-2.700:
- 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 or 3A for gas analysis when needed for calculation of molecular weight or percent CO₂.
 - 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.

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- g. Method 6, 6C or 8 for concentration of SO₂, or other Methods approved by DER. Two samples, taken at approximately 30 minute intervals, shall constitute one test run.
 - h. Method 7, 7A, 7B, 7C, 7D or 7E for concentration of nitrogen oxides, or other Methods approved by DER. Four samples, taken at approximately 15 minute intervals, shall constitute one test run.
 - i. Method 26 for determination of hydrochloric acid concentration or other Methods approved by DER and EPA.
 - 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, or other Methods approved by DER. One sample constitutes one test run.
 - 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.
 - m. Method 19 for determination of "F" factors in determining compliance with heat input emission rates.
 - n. Method 101A for determination of mercury emission rate and associated moisture content, or other Methods approved by DER. One sample shall constitute one test run.
 - 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.
 - p. Method 25 or 25A for determination of volatile organic compounds, or other Methods approved by DER. One sample shall constitute one test run.
 - q. Method 23 for determination of dioxin/furan concentration or other Methods approved by DER and EPA.
5. The permittee shall submit a stack test report to the Department within 45 days of testing.
6. The temperature at the exit of the dry scrubber shall not exceed 300°F (4 hour block average). Appropriate instrumentation shall be installed, if not already installed, within 180 days of

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SPECIFIC CONDITIONS:

issuance of this permit, at a proper location to continuously monitor and record these operating temperatures.

7. During boiler start up, the auxiliary gas burners shall be operating at their maximum capacity prior to the introduction of RDF to the boilers, and shall remain in operation until the lime spray dryer and particulate control device are fully operational.

8. During normal, non-emergency boiler shut down, the auxiliary gas burners shall be operated at their maximum capacity until all RDF has been combusted.

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

10. Open storage of solid waste outside of a building is prohibited.

11. The Solid Waste Authority's North County Regional Resource Recovery Facility shall utilize municipal solid waste as stated in the permit application. No sludge from sewage treatment plants shall be used as fuel. Use of alternate fuels would necessitate application for a modification to this permit.

12. During the compliance stack tests, RDF shall be analyzed by at least two separate labs, approved by the Department, using split samples for the Btu and moisture contents.

13. The lbs/hr of steam produced, corrected for pressure and temperature, shall be continuously monitored and recorded on a 4 hour block average. This monitor and data record shall be properly calibrated and maintained at all times.

14. Continuous Monitoring Program: The owner or operator of this source shall install (if not already installed), maintain, operate, and submit reports of excessive emissions for the SO₂, NO_x, CO, oxygen, and opacity. All averaging periods for emissions monitors shall be based on a midnight to midnight averaging period. The permittee shall also continuously monitor temperature at the dry scrubber exit, and steam production. The facility shall be operated by personnel properly trained for the equipment herein. The permittee shall provide a copy of the operation and maintenance manual for the Continuous Emissions Monitoring System to the Department within 180 days of issuance of this permit. The

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SPECIFIC CONDITIONS:

permittee shall provide written notice to the Department 15 days prior to formal staff training sessions, and allow Department representatives to attend said training sessions.

15. Continuous monitoring data shall be collected and recorded during periods of startup, shutdown and malfunction. Emissions during periods of startup, shutdown and malfunction shall be excluded from averaging calculations, and from determinations of compliance with emissions limits of this permit provided, however, that the duration of startups, shutdowns or malfunctions shall not exceed three hours per occurrence.

a. The startup period as stated in this condition shall mean the period when the boilers begin continuous burning of RDF, and does not include any warm up period when only the auxiliary gas burners are utilized, and no RDF is being combusted.

b. Malfunction shall mean any sudden and unavoidable failure of air pollution control equipment or process equipment to operate in a normal and usual manner. Failures 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.

16. The Department's Tallahassee office and the West Palm Beach District office, along with the PBCHD, shall be notified at least 30 days prior to the first annual stack tests. After the first stack tests are completed, the permittee shall give at least 15 days written notice prior to future annual stack testing to the West Palm Beach District and PBCHD offices.

17. There shall be no objectionable odors from this facility during operation, startup, shutdown or malfunction periods.

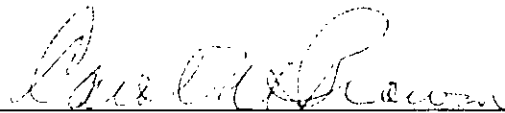
18. The permittee shall maintain a daily log of the municipal solid waste received. Such a log must record, at a minimum, the amount of waste, the time, and the type of waste received. The permittee shall also retain records of all information resulting from monitoring activities and indicating operating parameters as specified in this permit for a minimum of three years from the date of recording.

PERMITTEE:
Solid Waste Authority of Palm
Beach County

Permit Number: PSD-FL-108A
Expiration Date: None

Issued this 13th day
of January, 1992

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION



Carol M. Browner
Secretary

Best Available Control Technology (BACT)
North County Regional Resource Recovery Facility
Solid Waste Authority of Palm Beach County
Palm Beach County, Florida
PSD-FL-108-A

The applicant has constructed a resource recovery facility (RRF) located near the intersection of the Beeline Highway and the Florida Turnpike in Palm Beach County, Florida. The resource recovery facility consists of three major plants: the RDF manufacturing plant, the boiler plant and the electric generating plant.

The facility is designed to process 2,000 TPD of municipal solid waste (MSW) with an annual throughput of 624,000 tons. The RDF manufacturing plant is equipped with three MSW processing lines, any two of which can handle 2,000 TPD of incoming MSW. The boiler plant includes two B&W boilers, each designed to combust up to 900 TPD of RDF with a reference heating value of 5,500 Btu/lb (412.5 MMBtu/hr). Emissions from each boiler are controlled by a Joy Technologies spray dryer absorber followed by a Joy/BSH Krefeld four field electrostatic precipitator. Flue gas emissions (opacity, O₂, SO₂, CO and NO_x) from each unit are monitored with an Enviroplan CEM system. The turbine-generator plant has a nominal output rating of 62 MW, and is matched to the full output capacity of the boilers.

The original application to construct the facility was submitted in 1985. As the permit was being finalized in 1986, the applicant met with the Department to identify several items where the proposed permit differed from the designs being finalized and the contract for construction and operation which was executed in 1986. The primary issue concerned heat input. The draft permit provided a heat input of 360 MMBtu/hr capacity for each boiler. The design allowed heat input of 412.5 MMBtu/hr. This higher boiler capacity was intended to provide more reliable operating margins. The increased capacity allows more throughput during peak waste generation periods, allows for catch up capacity after scheduled or unscheduled downtime and to account for variability in fuel heating value. The increased capacity decreases the likelihood that raw garbage would be diverted to the landfill.

In addition to permitted heat input, the applicant also identified emission limitations for some air pollutants for which the draft permit and contract differed. Based on the discussions conducted in 1986, the Department and the applicant concurred that the permit would be issued as drafted. The applicant agreed to accept the permit as drafted and submit a request for modification to conform the permit to the design at a later date.

In 1989, the applicant submitted a request to increase the permitted boiler capacity and modify the emission limitations for the pollutants nitrogen oxides, carbon monoxide, sulfur dioxide, sulfuric acid mist, lead, and mercury. Subsequently the applicant withdrew the request for modifications of emission limitations for lead and mercury. In accordance with this request, BACT has been re-evaluated for nitrogen oxides and carbon monoxide. The emission limitation for sulfur dioxide has been reviewed from the standpoint of alternative means of determining compliance, and an evaluation has been made to determine if an emission limitation is needed for sulfuric acid mist.

BACT Determination Requested by the Applicant:

Current Permit Language	Requested Modification
NO _x : 0.32 lbs/MMBtu	0.56 lbs/MMBtu
CO: 400 PPMDV (3 hr. avg.) @ 12% CO ₂	200 PPMDV (24 hr. avg.) @ 12% CO ₂ 400 PPMDV (1 hr. avg.) @ 12% CO ₂

Date of Receipt of a BACT Application:

November 30, 1989

BACT Determination Procedure:

In accordance with Florida Administrative Code Chapter 17-2, Air Pollution, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- (a) Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- (b) All scientific, engineering, and technical material and other information available to the Department.
- (c) The emission limiting standards of BACT determinations of any other state.

- (d) The social and economic impact of the application of such technology.

With regard to the considerations outlined above, the evaluation will also take into account both the regulations as they existed in 1986 when the original permit was issued, and the emission guidelines for existing municipal waste combustors that have recently been promulgated under Section 111(d) and 129 of the Clean Air Act Amendments of 1990.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Nitrogen Oxides

The applicant asserted that original NO_x limit of 0.32 lb/MMBtu is too stringent. This was based on permit limitations allowing higher NO_x emissions for mass burn facilities permitted in Florida prior to or concurrently with the applicant's facility. The applicant requested the permit limit be changed from .32 lbs/MMBtu to .56 lbs/MMBtu.

A review of the BACT/LAER Clearinghouse suggest that the NO_x limit requested by the applicant is comparatively high. Although no RDF facilities have been required to use add on equipment for NO_x control, such as thermal de-NO_x, several RDF facilities have been permitted with lower than the applicant's requested NO_x limitations.

Two RDF facilities, in Huntsville, Alabama and Honolulu, Hawaii were permitted in 1987 (Palm Beach RRF was permitted in 1986). Each had NO_x emission limitations of 0.46 lb/MMBtu and 260 ppmdv at 12% CO₂ (equates to approximately 0.46 lb/MMBtu for the Palm Beach Facility). Given these limitations and the stack test results, an emission level of 0.48 lb/MMBtu is viewed to be reasonable for the Palm Beach RRF and is thereby judged to represent BACT.

Carbon Monoxide

The applicant has proposed a reduction in the emission limitation for carbon monoxide as a valid criteria to demonstrate good combustion practices.

The applicant has proposed that the averaging time for the current carbon monoxide limitation of 400 ppm_{dv} at 12% CO₂ be adjusted from 3 hours to 1 hour. In addition, the applicant has also proposed that a carbon monoxide limitation of 200 ppm_{dv} at 12% CO₂ be established with a 24 hour averaging time.

Carbon monoxide emissions are generally accepted as an indicator of combustion efficiency. Limiting the emissions of carbon monoxide provides assurance that good combustion is taking place and organic emissions are being controlled. As this is the case, it is a common practice to establish both a short term and long term emission level, in which the short term limit is set higher to allow for sporadic changes in combustion.

For the long term standard, EPA has recently established guidelines for RDF facilities which limit carbon monoxide emissions to 200 ppm_{dv} at 7% O₂ on a 24 hour average basis. As this is the case, this standard along with the short term standard proposed by the applicant (400 ppm_{dv} at 7% O₂ on a 1 hour average basis) is judged to represent BACT for the facility.

Other Requests

The applicant has requested that the SO₂ emission limitation be modified to include the option of complying with either a percent removal or a mass emission rate. Currently, the standard requires a 65% removal which may not be possible when the sulfur content of the waste stream is low.

Given this situation, the Department believes that the EPA emission guideline of either 70% removal or 30 ppm_{dv} at 7% O₂ on a 24 hour geometric mean basis should be used. In addition, the EPA guideline of 90% removal or 25 ppm_{dv} at 7% O₂ based on an annual stack test, (three test run average) should be established for HCl. A review of the test results indicates that these levels should be achievable.

Recent RRF permits have not established an emission limitation for sulfuric acid mist. This decision is based on unreliable results that are obtained with the sulfuric acid mist testing method (Method 8) for the low concentrations that are common to these facilities. As this is the case, the request to delete the limitation for sulfuric acid mist is reasonable.

With regard to plant capacity, the Department believes that it is reasonable to modify heat rate limitations to coincide with the actual design rate. The permit will be modified to establish the maximum boiler heat input at 412.5 MMBtu per hour. This corresponds to the nameplate rating of 324,300 pounds per hour steam capacity.

Other Revisions:

To bring the Palm Beach RRF in line with other recently permitted facilities and the EPA guidelines, the Department is recommending the following revisions:

Continuous emissions monitoring for CO, NO_x, and SO₂.

Emission concentrations be corrected to 7% O₂ instead of 12% CO₂.

Details of the Analysis May be Obtained by Contacting:

Barry Andrews, P.E., BACT Coordinator
Department of Environmental Regulation
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:


C.H. Fancy, P.E., Chief
Bureau of Air Regulation

January 6 1992
Date

Approved by:


Carol M. Browner, Secretary
Dept. of Environmental Regulation

January 13 1992
Date

BEFORE THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

In Re:)
)
Palm Beach County)
Palm Beach County Resource)
Recovery Facility)
Power Plant Certification)
Modification Request)
No. PA 85-21)
Palm Beach County, Florida)
_____)

FINAL ORDER
MODIFYING CONDITIONS OF CERTIFICATION

The Department of Environmental Regulation after notice and opportunity for hearing modifies the Conditions of Certification for the Palm Beach County Resource Recovery Facility pursuant to the Florida Electrical Power Plant Siting Act Section 403.516(1) Florida Statutes, and Condition XII, Modification of Conditions, which delegates authority to modify conditions to the Department.

1. On November 29, 1989, the Solid Waste Authority of Palm Beach County submitted a petition to the Department requesting modification of the Conditions of Certification and reissuance of the Prevention of Significant Deterioration Permit.

2. On May 2, 1991, the Department released a Preliminary Determination and proposed PSD permit modification for the North County Regional Resource Recovery Facility.

3. On August 2, 1991, Notice of Intent to Issue proposed Modification of Power Plant Certification was published in the Florida Administrative Weekly. Copies of the Notice were served on all parties. No hearing as been requested, therefore the Department adopts the proposed agency action as final.

4. On October 16, 1991, the Department released a revised Preliminary Determination and proposed PSD permit modification for the North County Resource Recovery Facility.

5. After review of the petition and supporting information, the Department grants relief to the Solid Waste Authority of Palm Beach County by making the following amendments to the Conditions of Certification:

XIV.A.1. Emission Limitations upon operation of Units 1 and 2.

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

(2) SO_2 : ~~0.32--lbs/MBtu-average--heat input--not-to--exceed--0.62-lbs/MBtu-heat input--one-hour-average~~ 70% removal or 30 ppmvd at 7% O_2 , whichever is less stringent (24-hour geometric mean). ~~Compliance-with- SO_2 -emission-limits-shall be-determined-by-annual-stack-tests---The average-of-three-or-more-stack-tests-runs shall-determine-the-average-value-~~

(3) Nitrogen Oxides: ~~0.32~~ 0.48 lbs/MBtu heat input.

(4) Carbon Monoxide: 400 ppmvd corrected to 7% O_2 (1-hour average); 200 ppm ppmvd corrected to 7% O_2 (24-hour average)

(8) Visible Emissions: ~~opacity--shall be---no---greater---than---15%---except---that visible---emissions-with-no-more---than-20% opacity---may-be-allowed---for-up-to---three consecutive---minutes---in---any---one---hour except-during-start-up-or-upsets-when-the provisions-of-17-2-2507-FAC7-shall-apply-Opacity-compliance-shall-be-demonstrated in-accordance-with-Florida-Administrative Code--Rule-17-2-700(6)(a)9-7-BER-Method-9~~ The opacity from each unit shall not exceed 10%, six minute average. CEM readings shall be excluded from averaging calculations when the process is not operating.

(12) ~~Sulfuric-Acid-Mist:--3-2-E-5-lb/Mbtu heat---input-~~ Hydrogen Chloride: 90% removal or 25 ppmvd at 7% O_2 , whichever is less stringent (24 hour average).

(13) Dioxins/Furans: Emissions of Total dioxins/furans (Tetra thru Octa-chlorinated dibenzo-p dioxins and dibenzofurans shall not exceed 60 ng/dscm at 7% O_2 .

XIV.A.1.c. The maximum boiler heat input shall not exceed 412.5 MBtu per hour. This corresponds to a name plate rating of 324,000 pounds per hour steam capacity.

XIV.A.1.e. Compliance with the limitations for particulates, sulfur oxides, nitrogen oxides, carbon monoxide, fluoride, ~~sulfuric--acid-mist~~ HCL, VOC, mercury, dioxins and furans, and lead shall be determined in accordance with Florida Administrative Code Rule 17-2.700, DER Methods 1, 2, 3, and 40 CFR 60, Appendix A, Methods 5, 6 or 6C, 7, 8, (modified with prefilter), 10, 12, 13A or 13B (or modified Method 5 for fluorides), and 18, 19, 23, 26, and 101A or other methods as approved by the DER. The stack test for each unit shall be performed at +10% of the maximum heat input rate of ~~360-0~~ 412.5 x 10⁶ Btu per hour or the maximum charging rate of 58,333 66,840 pounds of MSW per hour. ---

XIV.A.3. Air Monitoring Program

a. The Permittee shall install and operate continuously monitoring devices for flue gas oxygen, SO₂, NO_x, CO, and opacity. ----

Any party to the this Order has a right to seek judicial review of this Order pursuant to Section 120.67, Florida Statutes 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 Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, 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.

DONE AND ORDERED this 13th day of January, 1992, in Tallahassee, Florida.

FILING AND ACKNOWLEDGEMENT

FILED, on this date, pursuant to S120.52 Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

[Signature] Clerk 1-13-92 Date

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL REGULATION

[Signature]
Carol M. Browner
Secretary

Certificate of Service

I hereby certify that a copy of the Final Order Modifying Conditions of Certification of the Palm Beach County Resource Recovery Facility, Power Plant Site Certification was sent to the following parties by United States mail on January 14, 1992.

Elizabeth D. Ross, Esquire
South Florida Water
Management District
Post Office Box 24680
West Palm Beach, Florida
33416-4680

Peter J. Henn
Greenberg, Traurig, et al
500 East Broward Blvd.
Ft. Lauderdale, FL 33394

Alfred J. Malefatto
Shapiro & Bregman
Phillips Point
777 South Flagler Drive
Suite 310 East
West Palm Beach, FL 33401

Herbert C. Gibson, Esq.
Gibson and Adams
303 First Street, Suite 400
Post Office Box 1629
West Palm Beach, FL 33402

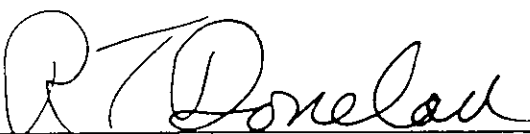
Joel T. Daves, III, Esq.
Burdick & Daves
Post Office Box 790
West Palm Beach, FL 33402

Roger G. Saberson, Esq.
110 East Atlantic Avenue
Delray Beach, FL 33444

Terrell K. Arline, Esq.
325 Clematis Street
Suite C
West Palm Beach, FL 33401

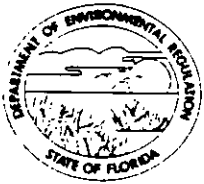
Kathryn Funchess, Esquire
Department of Community
Affairs
2740 Center View Drive
Tallahassee, FL 32399-2100

Michael Palecki, Esquire
Florida Public Service
Commission
Fletcher Building
101 East Gaines Street
Tallahassee, FL 32399-0863



Richard T. Donelan
Assistant General Counsel

State of Florida Department of
Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400
Telephone: (904) 488-9730



State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

For Routing To Other Than The Addressee	
To: _____	Location: _____
To: _____	Location: _____
To: _____	Location: _____
From: _____	Date: _____

Interoffice Memorandum

TO: Carol Browner
FROM: Steve Smallwood *[Signature]*
DATE: January 8, 1992
SUBJ: Approval of Permit Modification PSD-FL-108A
Solid Waste Authority of Palm Beach County

Attached for your approval and signature is the Final Determination and corresponding Best Available Control Technology Determination prepared by the Bureau of Air Regulation for the above mentioned company to increase their maximum boiler heat input to 412.5 MMBtu/hr at the North County Regional Resource Recovery Facility.

Also attached for your signature is the Final Order Modifying Conditions of Certification. The Siting Section and the Bureau of Air Regulation have worked together in preparing this document. Buck Oven suggested that I send this up with the PSD permit.

I recommend your approval and signature.

CF/MH/mh

Attachments

If you need more information than provided in the final determination and the draft permit, call me and I'll set up a verbal briefing for you.
[Signature]
1-8-92



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

In the matter of an
Application for Permit Amendment by:

DEP File No. PSD-FL-108(B)

Mr. David B. Lowe
Solid Waste Authority of
Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

02-23-96P02:45 RCVD

Enclosed is amended permit No. PSD-FL-108(B) to install a landfill collection system to control emissions from the Class I and Class III landfills at the North County Resource Recovery Facility (NCRRF). The amendment authorizes operation in Palm Beach County, Florida. This permit amendment is issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


C. R. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF PERMIT AMENDMENT and all copies were mailed by certified mail before the close of business on 2-21-96 to the listed persons.

Clerk Stamp
FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

Kuni Jones
Clerk

2-21-96
Date

Copies furnished to:

J. Kahn, SED
J. Harper, EPA
J. Bunyak, NPS
H. Oven, PPS
A. Makled, P.E.
J. Koerner, PBCHU

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Printed on recycled paper.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
February 20, 1996

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David B. Lowe
Solid Waste Authority of
Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

Dear Mr. Lowe:

Re: North County Resource Recovery Facility (NCRRF)
PSD-FL-108(B), Solid Waste Authority of Palm Beach County

The Department received your request of August 11, 1995, and supporting information to install a landfill collection system to control emissions from the Class I and Class III landfills at the North County Resource Recovery Facility (NCRRF). This request will require adding new specific conditions to the above referenced PSD permit. This permit is amended as follows:

NEW SPECIFIC CONDITIONS:

1. This source shall be allowed to operate continuously (i.e., 8760 hours/year).
2. The utility flare system shall be designed, manufactured, and operated according to U.S. Environmental Protection Agency criteria as specified in 40 CFR 60.18, in order to ensure high efficiency combustion of landfill gas at the 98% level of destruction of total hydrocarbons, with a flame temperature of at or above 1400°F.
3. There shall be no visible emissions from any individual flare, except for periods not to exceed a total of five minutes during any two consecutive hours at which visible emissions can be up to 20 percent opacity.
4. For inventory purposes, the pollutant emission rates from each of the flare systems are:

EMISSION RATE

Pollutant	Emission Factors	Pounds/Hour	Tons/Year
NO _x	0.07 lb/million Btu	1.67	7.33
→ VOC	36 lb/million ft ³	1.94	8.51
SO ₂	0.002 lb/scf	1.67	1.33
PM ₁₀	1.69 E-05 lb/scf	0.91	3.99
CO	0.37 lb/million Btu	9.10	39.87

5. This source shall meet the applicable requirements of 40 CFR Subpart WWW, NSPS for Municipal Solid Waste Landfills upon adoption by the Florida Department of Environmental Protection; 40 CFR 60.18, General Control Device Requirements; Chapters 62-209 through 297 and 62-4, F.A.C.

6. Compliance with the visible emissions standard shall be determined using EPA Method 22 and shall be for the duration of 2 hours. Such tests shall be conducted within 60 days of completion of construction and initial startup operation, and annually thereafter. The required visible emissions test report shall also contain the gas flow rate from the extraction wells and the flare temperature data.

7. Sulfur content of the input gas to any flare shall not exceed 0.65 pounds per hour.

Mr. David B. Lowe
Page Two
February 20, 1996

8. An analysis shall be performed to determine the sulfur content of input gas to the flare, by the American Society for Testing and Materials (ASTM) test method, D 1072-90, prior to any flare startup. Additional tests shall be performed on a yearly basis, and results included as part of the facility's annual operating report.

9. Pursuant to Rule 62-296.320(2), F.A.C., Objectionable Odors caused by these sources are prohibited.

10. Total volumetric flow to any flare in the system shall be limited to 900 scfm. Total volumetric flow to the aggregate of the two flares shall be limited to 1800 scfm.

11. Proper devices shall be installed at all wellheads, and at the flare station for 1) gas flow volume and gas pressure measurements, 2) gas composition analysis, 3) gas temperature and flame temperature recording, and 4) flow control, prior to the collection and disposal of the active landfill gases. Such devices shall be properly calibrated and maintained at all times, according to manufacturers' written instructions. The checking and recording of the gas flow, temperature, and pressure, shall be performed on a quarterly basis for all wells and on a monthly basis for the flare station.

The permittee shall keep a hard copy of the gas extraction monitoring and analysis data, as well as instrumentation history records, on site at all times. The data shall be summarized and included as part of the facility's annual operating report. These sources shall comply with recording and recordkeeping requirements specified in 40 CFR 60 Subpart WWW, NSPS for Municipal Solid Waste Landfills.

12. The net heating value of the input gas shall be 200 Btu/scf or greater. Compliance with this parameter shall be determined by methodology specified in paragraph f of 40 CFR 60.18. Samples shall be taken, and results reported annually.

13. Actual exit velocity of each flare shall be calculated and reported on an annual basis, using methods specified in paragraph f of 40 CFR 60.18.

14. The Southeast District office shall be given at least 15 days written notice prior to compliance testing.

15. Prior to placing the flare in service, the pilot gas for the flare shall be fired by propane at 25 scfh (standard cubic feet per hour). The pilot light is not required when the flame is sustained by the landfill gas alone.

A copy of this letter shall be filed with the PSD-FL-108, and shall become a part of the permit.

Sincerely,



Howard L. Rhodes
Director
Division of Air Resources
Management

HLR/th/t

cc: J. Kahn, SED
J. Bunyak, NPS
A. Makled, P.E.
J. Harper, EPA
H. Owen, PPS
J. Koerner, PBCHU

Attachments available upon request:

Application to construct/modify the NCRRF facility submitted on August 11, 1995.

Additional correspondence submitted on October 30, November 3 and December 4, 1995.

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, and 4a & b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

David B. Lowe
Solid Waste Authority
of Palm Bch CO
1501 N. 88th Rd
West Palm Bch, FL
33412

4a. Article Number

2 127 633 170

4b. Service Type

- ☐ Registered ☐ Insured
☒ Certified ☐ COD
☐ Express Mail ☐ Return Receipt for Merchandise

7. Date of Delivery

2/23/96

5. Signature (Addressee)

[Signature]

6. Signature (Agent)

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1991 *U.S. GPO: 1993-352-714

DOMESTIC RETURN RECEIPT

Thank you for using Return Receipt Service.

2 127 633 170



Receipt for Certified Mail

No Insurance Coverage Provided
Do not use for International Mail
(See Reverse)

PS Form 3800, March 1993

Sent to <i>David Lowe</i>	
Street and No. <i>Solid Waste Auth.</i>	
P.O., State, and Zip Code <i>of PBC</i>	
Postage <i>West Palm Bch</i>	
Certified Fee	<i>FI</i>
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, and Addressee's Address	
TOTAL Postage & Fr.	\$
Postmark or Date <i>2-21-96</i> <i>PSD-FI-108(B)</i>	



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

NOTICE OF PERMIT AMENDMENT

In the matter of an
Application for Permit Amendment by:

DEP File No. PSD-FL-108(B)

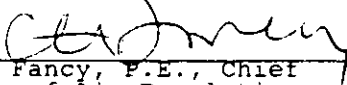
Mr. David B. Lowe
Solid Waste Authority of
Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

Enclosed is amended permit No. PSD-FL-108(B) to install a landfill collection system to control emissions from the Class I and Class III landfills at the North County Resource Recovery Facility (NCRRF). The amendment authorizes operation in Palm Beach County, Florida. This permit amendment is issued pursuant to Section 403, Florida Statutes.

Any party to this Order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400; 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 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION


C. H. Fancy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this **NOTICE OF PERMIT AMENDMENT** and all copies were mailed by certified mail before the close of business on 2-21-96 to the listed persons.

Clerk Stamp
FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

Kuni Jones 2-21-96
Clerk Date

Copies furnished to:

- J. Kahn, SED
- J. Harper, EPA
- J. Bunyak, NPS
- H. Oven, PPS
- A. Makled, P.E.
- J. Koerner, PBCHU

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

FINAL DETERMINATION

North County Resource Recovery Facility (NCRRF) PSD-FL-108(B) Solid Waste Authority of Palm Beach County

This permit amendment will add new specific conditions to the above referenced PSD permit applicable to the North County Resource Recovery Facility (NCRRF) of Palm Beach County. The new specific conditions will allow the installation of a landfill collection system and flares to control volatile organic compound (VOC) and odorous emissions from the Class I and Class III landfills at the NCRRF. Emissions from the combustion of landfill gases will not exceed the PSD significance levels for carbon monoxide, sulfur dioxide, and nitrogen oxides.

The permit amendment was distributed on December 22, 1995. The Notice of Intent to Issue was published by the applicant in The Palm Beach Post on January 19, 1996. Copies of the permit amendment evaluation were available for inspection at the office of the Division of Environmental Science and Engineering, Palm Beach County Public Health Unit and the offices of the Department of Environmental Protection in West Palm Beach and Tallahassee.

Comments were submitted by Alex Makled, Professional Engineer-of-Record, of Camp, Dresser & McKee (CDM) during the public notice period. Mr. Makled requested to change the sulfur content in the input gas from 0.045 to 0.65 lb/hr for the purpose of calculating potential emissions in Specific Condition No. 7., to increase the emission rate of VOC to 97.2 lb/hr and to revise Specific Condition No. 11 to reflect recording of data in a quarterly basis instead of a weekly basis. In addition, they also requested to delete Specific Conditions No. 14 and 17 since the Solid Waste Authority is currently preparing the Title V permit application for their waste to energy facility. The Title V permit application will include the emissions from the landfills gas system flares.

The Department considered their requests and agree to the changes as proposed except for the increase of VOC emissions to 97.2 lb/hr. The proposed LFG collection system will be installed to destroy the quantities of nonmethane organic compounds (NMOCs) by 98% by weight. Specific Condition No. 7 will change the sulfur content of the input gases to 0.65 lb per hour. Specific Condition No. 11 will reflect the recording of data on a quarterly basis instead of a weekly basis. Specific Condition No. 14 and 17 will be deleted. The permit specific conditions will be renumbered accordingly.

The final action of the Department is to issue the permit amendment as noted during the public notice period except for the changes discussed above.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
February 20, 1996

Virginia B. Wetherell
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. David B. Lowe
Solid Waste Authority of
Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412

Dear Mr. Lowe:

Re: North County Resource Recovery Facility (NCRRF)
PSD-FL-108(B), Solid Waste Authority of Palm Beach County

The Department received your request of August 11, 1995, and supporting information to install a landfill collection system to control emissions from the Class I and Class III landfills at the North County Resource Recovery Facility (NCRRF). This request will require adding new specific conditions to the above referenced PSD permit. This permit is amended as follows:

NEW SPECIFIC CONDITIONS:

1. This source shall be allowed to operate continuously (i.e., 8760 hours/year).
2. The utility flare system shall be designed, manufactured, and operated according to U.S. Environmental Protection Agency criteria as specified in 40 CFR 60.18, in order to ensure high efficiency combustion of landfill gas at the 98% level of destruction of total hydrocarbons, with a flame temperature of at or above 1400°F.
3. There shall be no visible emissions from any individual flare, except for periods not to exceed a total of five minutes during any two consecutive hours at which visible emissions can be up to 20 percent opacity.
4. For inventory purposes, the pollutant emission rates from each of the flare systems are:

EMISSION RATE

<u>Pollutant</u>	<u>Emission Factors</u>	<u>Pounds/Hour</u>	<u>Tons/Year</u>
NO _x	0.07 lb/million Btu	1.67	7.33
VOC	36 lb/million ft ³	1.94	8.51
SO ₂	0.002 lb/scf	1.67	1.33
PM ₁₀	1.69 E-05 lb/scf	0.91	3.99
CO	0.37 lb/million Btu	9.10	39.87

5. This source shall meet the applicable requirements of 40 CFR Subpart WWW, NSPS for Municipal Solid Waste Landfills upon adoption by the Florida Department of Environmental Protection; 40 CFR 60.18, General Control Device Requirements; Chapters 62-209 through 297 and 62-4, F.A.C.

6. Compliance with the visible emissions standard shall be determined using EPA Method 22 and shall be for the duration of 2 hours. Such tests shall be conducted within 60 days of completion of construction and initial startup operation, and annually thereafter. The required visible emissions test report shall also contain the gas flow rate from the extraction wells and the flare temperature data.

7. Sulfur content of the input gas to any flare shall not exceed 0.65 pounds per hour.

Mr. David B. Lowe
Page Two
February 20, 1996

8. An analysis shall be performed to determine the sulfur content of input gas to the flare, by the American Society for Testing and Materials (ASTM) test method, D 1072-90, prior to any flare startup. Additional tests shall be performed on a yearly basis, and results included as part of the facility's annual operating report.

9. Pursuant to Rule 62-296.320(2), F.A.C., Objectionable Odors caused by these sources are prohibited.

10. Total volumetric flow to any flare in the system shall be limited to 900 scfm. Total volumetric flow to the aggregate of the two flares shall be limited to 1800 scfm.

11. Proper devices shall be installed at all wellheads, and at the flare station for 1) gas flow volume and gas pressure measurements, 2) gas composition analysis, 3) gas temperature and flame temperature recording, and 4) flow control, prior to the collection and disposal of the active landfill gases. Such devices shall be properly calibrated and maintained at all times, according to manufacturers' written instructions. The checking and recording of the gas flow, temperature, and pressure, shall be performed on a quarterly basis for all wells and on a monthly basis for the flare station.

The permittee shall keep a hard copy of the gas extraction monitoring and analysis data, as well as instrumentation history records, on site at all times. The data shall be summarized and included as part of the facility's annual operating report. These sources shall comply with recording and recordkeeping requirements specified in 40 CFR 60 Subpart WWW, NSPS for Municipal Solid Waste Landfills.

12. The net heating value of the input gas shall be 200 Btu/scf or greater. Compliance with this parameter shall be determined by methodology specified in paragraph f of 40 CFR 60.18. Samples shall be taken, and results reported annually.

13. Actual exit velocity of each flare shall be calculated and reported on an annual basis, using methods specified in paragraph f of 40 CFR 60.18.

14. The Southeast District office shall be given at least 15 days written notice prior to compliance testing.

15. Prior to placing the flare in service, the pilot gas for the flare shall be fired by propane at 25 scfh (standard cubic feet per hour). The pilot light is not required when the flame is sustained by the landfill gas alone.

A copy of this letter shall be filed with the PSD-FL-108, and shall become a part of the permit.

Sincerely,



Howard L. Rhodes
Director
Division of Air Resources
Management

HLR/th/t

cc: J. Kahn, SED
J. Bunyak, NPS
A. Makled, P.E.

J. Harper, EPA
H. Oven, PPS
J. Koerner, PBCHU

Attachments available upon request:

Application to construct/modify the NCRRF facility submitted on August 11, 1995.

Additional correspondence submitted on October 30, November 3 and December 4, 1995.

Memorandum

Florida Department of
Environmental Protection

al

TO: Howard L. Rhodes
THROUGH: Clair Fancy *CH*
FROM: A. A. Linero *aa* 2/14
Teresa Heron *TH*
DATE: February 14, 1996
SUBJECT: Modification of Permit PSD-FL-108(B)
Solid Waste Authority of Palm Beach County
North County Resource Recovery Facility (NCRRF)

Attached is a letter modifying a construction permit for this facility. The modification consists of the installation of a landfill gas collection system to control VOC's and odorous emissions from the Class I and Class II landfills at the NCRRF.

Two flares will be installed in accordance with the proposed New Source Performance Standards for landfills (40 CFR 60 Subpart WWW). The two flares are identical units. The landfill gas collection systems are similar in concept. The potential emissions of combustion products from each emission unit are less than the PSD significant level.

I recommend your approval and signature.

TH/kt

Attachments

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT MODIFICATION

In the Matter of an
Application for Permit Modification

Solid Waste Authority of Palm Beach County
North County Regional Resource Facility
7501 North Jog Road
West Palm Beach, Florida 33412

DEP File No. PSD-FL-108C
Palm Beach County

Enclosed is the Final Prevention of Significant Deterioration Permit Modification Number PSD-FL-108C allowing stack sampling on a five year basis instead of annual testing of emissions of beryllium and fluoride emitted from the Solid Waste Authority of Palm Beach County North County Resource Recovery Facility located at 7501 North Jog Road, West Palm Beach. 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 8-14-97 to the person(s) listed:

Mr. M. Bruner, SWA North County RRF *
Mr. B. Beals, EPA
Mr. J. Bunyak, NPS
Mr. D. Dee, Esquire
Mr. H. Oven, PPS
Mr. I. Goldman, SED
Mr. J. Koerner, PBCPHU

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.


(Clerk) 8-14-97
(Date)

FINAL DETERMINATION

**SOLID WASTE AUTHORITY OF PALM BEACH COUNTY
NORTH COUNTY RESOURCE RECOVERY FACILITY
PERMIT PSD-FL-108C
Palm Beach County**

An Intent to Issue a PSD permit modification to the Solid Waste Authority of Palm Beach County (SWA), for the North County Resource Recovery Facility located at 7501 North Jog Road, West Palm Beach, Palm Beach County, was distributed on June 13, 1997. The permit is to allow testing for beryllium and fluoride every five years instead of annually. The reason is that test results typically indicated emissions of these pollutants to be an order of magnitude lower than permitted or below the limits of detectability.

The Public Notice of Intent to Issue Air Construction Permit Modification was published in the Palm Beach Post on June 27, 1997. No comments were submitted during the Public Notice period.

The final action of the Department will be to issue the permit modification as drafted.

P 265 659 436

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Donald Lockhart	
Street & Number	
SWA	
Post Office, State, & Zip Code	
W P Bch, FI	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
8-14-97	
PSD-FI-100C	

PS Form 3800, April 1995

Fold at line over top of envelope to the right of the return address

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Mr. Donald Lockhart, Ex. Dir.
Solid Waste Authority of P.Bch
7501 N. 90th Road
West Palm Beach, FI
33412

4a. Article Number

P 265 659 436

4b. Service Type

- | | |
|---|---|
| ☐ Registered | ☒ Certified |
| ☐ Express Mail | ☐ Insured |
| ☐ Return Receipt for Merchandise | ☐ COD |

7. Date of Delivery

8/18/97

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X [Signature]

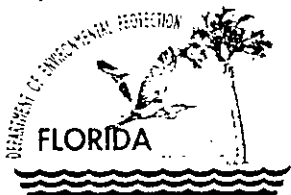
8. Addressee's Address (Only if requested and fee is paid)

Is your RETURN ADDRESS completed on the reverse side?

PS Form 3811, December 1994

Domestic Return Receipt

Thank you for using Return Receipt Service.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

August 14, 1997

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Donald Lockhart, Executive Director
Solid Waste Authority of Palm Beach
7501 North Jog Road
West Palm Beach, Florida 33412

Re: Permit Modification No. PSD-FL-108C
Solid Waste Authority of Palm Beach County
North County Regional Resource Facility

Dear Mr. Lockhart:

The Department has reviewed your request on behalf of the Solid Waste Authority of Palm Beach County ("Authority") to conduct stack tests for beryllium and fluoride every five years instead of annually at the three units located at the North County Resource Recovery Facility. The information provided showed emissions were either an order of magnitude below the permit emission limits or were below detection limits (annual emission test reports for the period of 1989-1996). Therefore, the referenced PSD permit is hereby modified as follows:

SPECIFIC CONDITION No. 4

Each unit shall be tested within 180 days of issuance of this permit, and annually thereafter, except for beryllium and fluoride (every five years), to demonstrate compliance with emission standards mentioned in specific condition No. 3, using the following EPA test methods contained in 40 CFR 60, Appendix A, and in accordance with Rules 62-204.800 and 62-297.401, F.A.C. Section 17-2.700.

A copy of this letter shall be filed with the referenced permit and shall become part of the permit.

Sincerely,

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/th

Memorandum

Florida Department of Environmental Protection

TO: Howard L. Rhodes

THROUGH: Clair Fancy *CAF*
Al Linero *CAF 8/14*

FROM: Teresa Heron

DATE: August 14, 1997

SUBJECT: Solid Waste Authority of Palm Beach County
Amendment to PSD Permit (PSD-FL-108C)
Beryllium and Fluoride Testing for MWC

Attached is a PSD permit modification for the above mentioned facility to allow the stack sampling of the emissions of beryllium and fluoride on a five years basis instead of an annual basis. Stack tests conducted over the last 10 years have consistently indicated that emissions of these pollutants are at least an order of magnitude below the permit limits or below the detection limit for the DEP approved methods.

The units have acid gas control by a spray dryer absorber which is followed by an ESP. This along with historical test results, provides reasonable assurance that emissions of fluorides and beryllium will continue to be minimal. Note also that the units burn refuse derived fuel instead of straight municipal solid waste. This is a less difficult stream to process and control.

I recommend your approval.

HLR/th/t

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

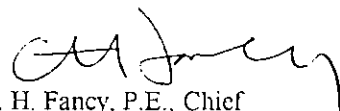
Donald L. Lockhart, Executive Director
Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412-2414

DEP File No. 0990234-002-AC, PSD-FL-108(D)
North County Resource Recovery Facility
Class I and III Landfill Gas Flare Upgrade
Palm Beach County

Enclosed is Final Permit Number 0990234-002-AC, PSD-FL-108(D). This permitting action will supersede the previous permit modification, PSD-FL-108(B), dated February 20, 1996, clerked February 21, 1996. The permit modification is to allow for an upgrade of the blower motors for each landfill gas flare from a permitted flow rate of 900 scfm to a permitted flow rate of 1800 scfm. This permit modification will clarify previous permit conditions and remove a limitation on the sulfur content of the landfill gas, which the applicant can not control. 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 5-11-99 to the person(s) listed:

Donald L. Lockhart *
Steve Palmer, DEP, Siting Coordination Office
James Stormer, PBCHD
John Bunyak, NPS

Alex H. Makled, P.E., CDM
Isidore Goldman, P.E., SED
Gregg Worley, EPA

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) 5-11-99
(Date)

Z 333 618 109

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Donald Lockhart	
Street & Number	
Solid Waste	
Post Office, State, & ZIP Code	
Authority of PBCO	
Postage	\$ 0.74
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
5-11-99	
0990234-002-AC	
P52 FI-10ED	

PS Form 3800, April 1995

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- ☐ Addressee's Address
- ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Donald Lockhart Ex. Dir.
Solid Waste Authority
of Palm Beach Co.
7501 N. Jog Rd
West Palm Beach, FL

33412-2414

4a. Article Number

Z 333 618 109

4b. Service Type

- | | |
|---|---|
| ☐ Registered | ☒ Certified |
| ☐ Express Mail | ☐ Insured |
| ☐ Return Receipt for Merchandise | ☐ COD |

7. Date of Delivery

5/13/99

5. Received By: (Print Name)

6. Signature (Addressee or Agent)

X *[Signature]*

8. Addressee's Address (Only if requested and fee is paid)

PS Form 3811, December 1994

102595-97-B-0179

Domestic Return Receipt

Thank you for using Return Receipt Service.

FINAL DETERMINATION

Solid Waste Authority of Palm Beach County
North County Resource Recovery Facility
Class I and III Landfill Gas Flare Upgrade
DEP File No. 0990234-002-AC, PSD-FL-108(D)

The Department distributed a public notice package on March 24, 1999 to allow the applicant to upgrade the blower motors for each landfill gas flare from a permitted flow rate of 900 scfm to a permitted flow rate of 1800 scfm at the Applicant's North County Resource Recovery Facility's Class I and III landfills located at 7501 North Jog Road, West Palm Beach, Palm Beach County. This permit modification will clarify previous permit conditions and remove a limitation on the sulfur content of the landfill gas, which the applicant can not control. This permitting action will supersede the previous permit modification, PSD-FL-108(B), dated February 20, 1996, clerked February 21, 1996. The Public Notice of Intent to Issue was published in The Palm Beach Post on April 6, 1999.

COMMENTS/CHANGES

No comments were received by the Department from the public, EPA, the Siting Coordination office, the Department's district office, the local program, or from the applicant.

The Department made no changes to the permit text.

CONCLUSION

The final action of the Department is to issue the final permit with no changes.



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

David B. Struhs
Secretary

May 7, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Donald L. Lockhart, Executive Director
Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412-2414

Re: DEP File No. 0990234-002-AC, PSD-FL-108(D)
North County Resource Recovery Facility
Class I and III Landfill Gas Flare Upgrade

The applicant, Solid Waste Authority of Palm Beach County, applied on September 21, 1998, to the Department for an air construction permit for its Class I and III Landfill Gas Flare Upgrade located at the North County Resource Recovery Facility, 7501 North Jog Road, West Palm Beach, Palm Beach County. This permitting action will supersede the previous permit modification, PSD-FL-108(B), dated February 20, 1996, clerked February 21, 1996. The modification is to upgrade the blower motors for each landfill gas flare (emissions units 003 and 004) from a permitted flow rate of 900 scfm to a permitted flow rate of 1800 scfm. The Department has reviewed the applicant's request. The conditions of permit modification PSD-FL-108(B) are hereby replaced entirely with the following specific conditions.

New Specific Conditions:

1. Hours of Operation: These emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]
2. Landfill Gas Collection and Control: The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills. [Rule 62-204.800(7)(b), F.A.C., and 40 CFR 60 Subpart WWW]
3. Landfill Gas Flow Rate: The owner or operator shall not allow more than 1800 scfm of landfill gas to be directed to each flare. The actual flow rate shall be determined for each flare on a monthly average basis by dividing the measured flow by the hours that each flare was operated each month. Compliance with this limitation shall be by measuring landfill gas flows to each flare and recording flows with a totalizing meter. Records of the totalizing meter values shall be recorded in an operators log monthly, or whenever the meter is reset for any purpose, whichever is more frequent. The owner or operator shall maintain a strip chart recorder to record the flow rate to each flare as a backup device in the event that the totalizer meter is not functioning; the strip chart recorder shall also be used in conjunction with an operators log to document the hours each month that each flare was operated. [Rule 62-4.070(3), F.A.C., and request of the applicant]
4. Pursuant to 40 CFR 60.18 General Control Device Requirements: The owner or operator shall comply with the following requirements for flares. [Note: The numbering of the rule has been preserved in the following condition for ease of reference.]
 - (c) (1) Flares shall be designed for and operated with no visible emissions as determined by the methods specified in paragraph (f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.
 - (2) Flares shall be operated with a flame present at all times, as determined by the methods specified in paragraph (f).

- (3) Flares shall be used only with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted shall be determined by the methods specified in paragraph (f).
- (4) (iii) Nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in paragraph (f)(4), less than the velocity, V_{max} , as determined by the method specified in paragraph (f)(5), and less than 122 m/sec (400 ft/sec) are allowed.
- (d) Owners or operators of flares used to comply with the provisions of this subpart shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.
- (e) Flares used to comply with provisions of this subpart shall be operated at all times when emissions may be vented to them.
- (f) (1) Reference Method 22 shall be used to determine the compliance of flares with the visible emission provisions of this subpart. The observation period is 2 hours and shall be used according to Method 22.
- (2) The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.
- (3) The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$HT = K \sum_{i=1}^n C_i H_i$$

where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25°C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20°C;

K = Constant, 1.740×10^{-7} (1/ppm) (g mole/scm) (MJ/kcal) where the standard temperature for (g mole/scm) is 20°C;

C_i = Concentration of sample component i in ppm on a wet basis, as measured for organics by Reference Method 18 and measured for hydrogen and carbon monoxide by ASTM D1946-77 (Incorporated by reference as specified in 40 CFR 60.17); and

H_i = Net heat of combustion of sample component i , kcal/ g mole at 25°C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382-76 (incorporated by reference as specified in 40 CFR 60.17) if published values are not available or cannot be calculated.

- (4) The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.
- (5) The maximum permitted velocity, V_{max} , for flares complying with paragraph (c)(4)(iii) shall be determined by the following equation.

$$\text{Log}_{10} (V_{max}) = (HT+28.8)/31.7$$

V_{max} = Maximum permitted velocity, M/sec

28.8 = Constant

31.7 = Constant

HT = The net heating value as determined in paragraph (f)(3).

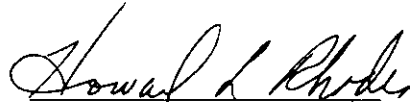
[Rule 62-204.800(7)(b), F.A.C., and 40 CFR 60.18]

5. Reporting Requirements: The owner or operator shall annually determine and report the actual exit velocity of each flare using the methods specified in 40 CFR 60.18. The owner or operator shall annually analyze and report the sulfur content of the landfill gas directed to each flare using ASTM Method D1072-90, or later method. The actual exit velocity and sulfur content shall be reported to the Department as an attachment to the facility's annual operating report. [Rule 62-4.070(3), F.A.C., and requirement of previous PSD FL-108(B), dated February 20, 1996, clerked February 21, 1996]

A copy of this letter shall be filed with the referenced permit and shall become part of the permit. This permit modification is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit modification) has the right to seek judicial review of it under Section 120.68, F.S., 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.



Howard L. Rhodes, Director
Division of Air Resources
Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this permit modification was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5-11-99 to the person(s) listed:

Donald L. Lockhart *
Alex H. Makled, P.E., CDM
Steve Palmer, DEP, Siting Coordination Office
Isidore Goldman, P.E., SED
James Stormer, PBCHD
Gregg Worley, EPA
John Bunyak, NPS

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)

5-11-99
(Date)

Florida Department of
Environmental Protection

Memorandum

TO: Howard L. Rhodes

THRU: Clair Fancy 
Al Linero

FROM: Joe Kahn 

DATE: May 7, 1999

SUBJECT: Solid Waste Authority of Palm Beach County
North County RRF Site, Landfill Gas System Modifications
0990234-002-AC, PSD-FL-108(D)

BAR

Attached for approval and signature is the final permit modification for the PSD permit for the landfill gas systems for the Class I and III landfills. This permitting action will supersede the previous permit modification, PSD-FL-108(B), dated February 20, 1996, clerked February 21, 1996. This permit modification allows for an increase in gas flow to each landfill gas flare (one for each landfill). This modification also clarifies previous conditions and removes a previous condition limiting the sulfur content of the landfill gas. The potential emissions for this modification are less than the PSD significance levels, so this action is not subject to the requirements of PSD, although this permitting action modifies a previous PSD permit. The Public Notice requirements have been met on April 6, 1999 by publishing in The Palm Beach Post. We received no comments about this project.

I recommend your approval and signature.

Attachments

/jk

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit by:

Mr. John D. Booth, Executive Director
Solid Waste Authority of Palm Beach County
7501 North Jog Road
West Palm Beach, Florida 33412-2414

DEP Permit No. 0990234-006-AC and PSD-FL-108F
North County Resource Recovery Site
Biosolids Pelletization Facility
Palm Beach County

Enclosed is the Final Permit Number 0990234-006-AC and PSD-FL-108F for the construction of a Biosolids Pelletization Facility (BPF) at the North County Resource Recovery Facility Site. The site is located at 7501 North Jog Road, West Palm Beach, Palm Beach 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.


for 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 2/3/06 to the person(s) listed:

Mr. John D. Booth, SWA *
jbooth@swa.org

Mr. Alex H. Makled, P.E., CDM
makledah@cdm.com

Mr. Ray Schauer, SWA
rschauer@swa.org

Ms. Jill Grimaldi, CDM
GrimaldiJT@cdm.com

Mr. Kevin C. Leo, P.E., CDM
leokc@cdm.com

Mr. Steve Palmer, DEP, Siting Coordination Office
Steve.Palmer@dep.state.fl.us

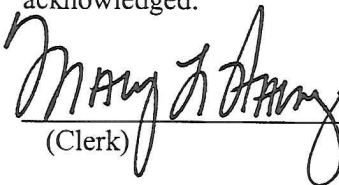
Mr. Darrel Graziani, SED
Darrel.Graziani@dep.state.fl.us

Mr. James Stormer, PBCHD
Mr. John Bunyak, NPS
Mr. Gregg Worley, EPA

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)

2/3/06
(Date)

FINAL

PERMITTEE

Solid Waste Authority of Palm Beach County North County Resource Recovery Facility (NCRRF) 7501 North Jog Road West Palm Beach, Florida 33412-2414	Permit No.: 0950137-006-AC and PSD-FL-108F
	Facility ID No.: 0990234
	Project: Biosolids Pelletization Facility

PROJECT AND LOCATION

This permit authorizes the construction of a 675 wet tons per day of sludge (wtpd, at 20% solids) Biosolids Pelletization Facility (BPF).

The facility, North County Resource Recovery Facility (NCRRF), is located at 7501 North Jog Road, West Palm Beach, Palm Beach County. The UTM coordinates are Zone 17; 585.8 km E; 2960.2 km N.

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 GC - Construction Permit General Conditions

Appendix BD - BACT Determination

Table AP-1 Summary of Air Pollutants

Appendix 40 CFR 61 Subpart A - NESHAP General Provisions (version dated 05/06/04)

Appendix 40 CFR 61 Subpart E - NESHAP for Mercury (version dated 03/20/03)

Appendix SS-1, Stack Sampling Facilities

Effective Date: 2/2/06

Expiration Date: March 31, 2008



Michael G. Cooke, Director
Division of Air Resource Management