



SERVE • CONSERVE

February 12, 1999

MIAMI-DADE WATER AND SEWER DEPARTMENT
4200 Salzedo Street, Coral Gables, Florida 33146 • Tel: 305-669-3700 • Fax: 669-3788

RECEIVED

FEB 18 1999

BUREAU OF
AIR REGULATION

CERTIFIED: Z 427 642 153
RETURN RECEIPT

Mr. Syed Arif, P.E.
Air Quality Engineer
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

RE: Draft Air Construction Permit for Central District WWTP-
Florida DEP File No. 0250476-002-AC, (PSD-FL-240)

Dear Mr. Arif:

Attached, please find a certified proof of publication of the "Public Notice of the Notice of Intent to Issue Air Construction Permit Modifications" for the cogenerators and standby generator sets at the Central District Wastewater Treatment Facility, as required by Section 403.815, Florida Statutes.

Should you have any questions, please call me at (305) 669-5749.

Sincerely,

Richard M. O'Rourke, P.E.
Environmental Permits

ro
Attachment

c: Isidore Goldman, FDEP Southeast District
Patrick Wong, Miami-Dade County DERM
David Lindberg, CH2M Hill, San Diego

EPA
NPS
File

**PUBLIC NOTICE OF INTENT TO ISSUE AIR
CONSTRUCTION PERMIT MODIFICATIONS
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL
PROTECTION
DEP File No. 0250476-002-AC
(PSD-FL-240)
CENTRAL DISTRICT WASTEWATER
TREATMENT PLANT DADE COUNTY**

MIAMI DAILY BUSINESS REVIEW

Published Daily except Saturday, Sunday and
Legal Holidays
Miami, Dade County, Florida.

STATE OF FLORIDA
COUNTY OF DADE:

Before the undersigned authority personally appeared Octelma V. Ferbeyre, who on oath says that she is the Supervisor, Legal Notices of the Miami Daily Business Review f/k/a Miami Review, a daily (except Saturday, Sunday and Legal Holidays) newspaper, published at Miami in Dade County, Florida; that the attached copy of advertisement, being a Legal Advertisement of Notice in the matter of

PUBLIC NOTICE OF INTENT TO ISSUE
AIR CONSTRUCTION PERMIT MODIFICATIONS
STATE OF FLORIDA DEP FILE NO.
0250476-002-AC (PSD-FL-240)
CENTRAL DISTRICT WASTEWATER
TREATMENT PLANT DADE COUNTY

in the Court,
was published in said newspaper in the issues of
Feb 8, 1999

Affiant further says that the said Miami Daily Business Review is a newspaper published at Miami in said Dade County, Florida, and that the said newspaper has heretofore been continuously published in said Dade County, Florida, each day (except Saturday, Sunday and Legal Holidays) and has been entered as second class mail matter at the post office in Miami in said Dade County, Florida, for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, firm or corporation any discount, rebate, commission or refund for the purpose of securing this advertisement for publication in the said newspaper.

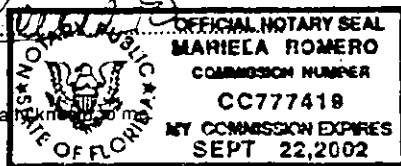
Octelma V. Ferbeyre

Sworn to and subscribed before me this
February 9, 1999

8 day of A.D. 19.....

Octelma V. Ferbeyre
(SEAL)

Octelma V. Ferbeyre personally known to me



The Department of Environmental Protection (Department) gives notice of its intent to issue air construction permit modifications to Miami-Dade Water and Sewer Department for its facility located in Virginia Key, Miami, Dade County. A Best Available Control Technology (BACT) determination was required for this modification pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's name and address are: Miami-Dade Water and Sewer Department (WASD), 4200 Salzedo Street, Coral Gables, Florida 33146-0316.

This existing facility consists of two wastewater treatment trains. WASD plans to increase the hours of operation of the three existing diesel-fired 2.5 megawatt (MW) generators and four existing digester gas-fired 1.2 MW generators. The 2.5 MW diesel generators will burn No. 2 fuel oil with a sulfur content of 0.05 percent or less, by weight and the 1.2 MW generators will burn digester gases only. All diesel generators are allowed to operate continuously at reduced loads and the No. 2 fuel oil usage is limited to 1.8 million gallons per year. Additionally, the hourly and annual emissions of NO_x for the four 1.2 MW each digester gas generator will be reduced to a level more appropriate for clean burn engines.

An air quality impact analysis was conducted. Emissions from the facility will not cause or contribute to a violation of any state or federal ambient air quality standards. The maximum predicted PSD NO₂ increment consumed by all sources, including this project, in the nearest Class I (Everglades National Park) and Class II areas will be as follows:

| Averaging Time And Class | Allowable Increment (µg/m ³) | Increment Consumed (µg/m ³) | Percent Consumed |
|--------------------------|--|---|------------------|
| Annual - Class I | 2.5 | 0.74 | 30 |
| Annual - Class II | 25 | 24.9 | 99 |

The Department will issue the final permit modifications with the attached conditions unless a response received in accordance with the following procedures results in a different decisions or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit Modifications." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit modifications and require, if applicable, another Public Notice.

The Department will issue these permit modifications with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

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 the 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.

following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

| | | |
|---|--|---|
| 3. Article Addressed to: Robert C. Ready, PE Miami-Cade W & S Dept. 4200 Salzedo St. Coral Gables, FL 33146-0316 | | 4a. Article Number Z 333 612 500 |
| 5. Received By: (Print Name) L. DANFIELD | | 4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD |
| 6. Signature: (Addressee or Agent) X <i>L. Danfield</i> | | 7. Date of Delivery 2-1-99 |
| 8. Addressee's Address (Only if requested and fee is paid) | | |

Thank you for using Return Receipt Service.

PS Form 3811, December 1994

102596-97-8-0179

Domestic Return Receipt

Z 333 612 500

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

| | |
|---|--------------------------------------|
| Sent to | Robert Ready |
| Street & Number | Miami-Cade |
| Post Office, State, & ZIP Code | Water & Sewer Miami FL |
| Postage | \$ |
| Certified Fee | |
| Special Delivery Fee | |
| Restricted Delivery Fee | |
| Return Receipt Showing to Whom & Date Delivered | Revised |
| Return Receipt Showing to Whom, Date, & Addressee's Address | |
| TOTAL Postage & Fees | \$ |
| Postmark or Date | 6356476-002-XC 1-28-99 PSD-FI-240 |

PS Form 3800, April 1995

Florida Department of
Environmental Protection

Memorandum

BAR

TO: Howard L. Rhodes
THRU: Clair Fancy *CAF*
Al Linero *Al Linero 3/15*
FROM: Syed Arif *Syed Arif*
DATE: March 15, 1999

RECEIVED

MAR 17 1999

BUREAU OF
AIR REGULATION

SUBJECT: Miami-Dade Water & Sewer Department, 0250476-002-AC,
PSD-FL-240

Attached for approval and signature is a construction permit number 0250476-002-AC, PSD-FL-240 for Miami-Dade Water & Sewer Department's Central District Wastewater Treatment Plant in Virginia Key, Dade County, Florida. The facility plans to increase the hours of operation of the three existing diesel-fired 2.5 megawatt (MW) and four existing digester gas fired 1.2 MW generators. A Technical Evaluation and Preliminary Determination was issued, and the facility was required to do a public notice.

The diesel-fired generators are a source of nitrogen oxide emissions which are controlled by timing retardation and aftercoolers. The hourly and annual emissions of NO_x from the digester gas fired generators will be reduced to a level more appropriate for clean burn engines.

The project modification provides reasonable assurance that all the requirements of the permit and BACT determination will be complied with. I recommend your approval and signature.

PERMITTEE:

Miami-Dade Water and Sewer Department
4200 Salzedo Street
Coral Gables, Florida 33146-0316

Authorized Representative:

Robert C. Ready, P.E.
Assistant Director of Treatment Facility

| | |
|-------------------|-------------------|
| FID No. | 0250476 |
| PSD No. | PSD-FL-240 |
| SIC No. | 4952 |
| Project: | Diesel Generators |
| Permit No. | 0250476-002-AC |
| Expires: | December 31, 1999 |

PROJECT AND LOCATION:

Permit for increasing the hours of operation for the three 2.5 megawatt diesel electric generators and four 1.2 megawatt digester gas electric generators at the Central District Wastewater Treatment Plant, Virginia Key, Miami, Dade County. UTM coordinates are Zone 17; 585.2 km E; 2848.1 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices are made a part of this permit:

| | |
|--------------|---|
| Appendix BD | BACT Determination |
| Appendix GC | Construction Permit General Conditions |
| Appendix CSC | Emission Unit(s) Common Specific Conditions |

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT 0250476-002-AC AND PSD-FL-240

SECTION I. FACILITY INFORMATION

SUBSECTION A. FACILITY DESCRIPTION

The Miami-Dade Water and Sewer Department (WASD) Central District Wastewater Treatment Plant presently consists of three nominal 2.5 Megawatt (MW) diesel engine-driven generators designated as Units 13 and 14 and 15, four nominal ~~1.5~~ 1.2 MW diesel digester gas engine-driven generators (Units 7, 9, 10 and 11), and one wastewater treatment plant (Unit 8). This permit is to increase the hours of operation for the ~~seven~~ three diesel and four digester gas generators (Units 7, 9, 10, 11, 13, 14 and 15) and to limit the potential-to-emit of units 7, 9, 10 and 11.

SUBSECTION B. REGULATORY CLASSIFICATION

The Central District Wastewater Treatment is classified as a Major Source of Air Pollution or Title V Source because it emits or has the potential to emit at least 100 tons per year of nitrogen oxides (NO_x) and carbon monoxide (CO). It is also a Major Facility with respect to preconstruction review because it emits or has the potential to emit at least 250 tons per year of NO_x.

SUBSECTION C. PERMIT SCHEDULE:

- 07-24-97: Date of Receipt of Application
- 10-21-98: Application deemed complete
- 12-xx-98: Intent issued

SUBSECTION D. RELEVANT DOCUMENTS:

The documents listed form the basis of the permit. They are specifically related to this permitting action. These documents are on file with the Department.

- Application received 7-24-97
- Department's letters dated 8-21-97, 3-9-98, and 4-15-98
- Company letters dated 3-16-98, and 10-21-98
- Technical Evaluation and Preliminary Determination dated 12-xx-98
- Best Available Control Technology determination (issued concurrently with permit)

AIR CONSTRUCTION PERMIT 0250476-002-AC AND PSD-FL-240

SECTION II. EMISSION UNIT(S) GENERAL REQUIREMENTS

SUBSECTION A. ADMINISTRATIVE

- A.1 Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department of Environmental Protection, Southeast District Office located at 400 North Congress Avenue, West Palm Beach, Florida 33401, and phone number (561) 681-6600. All applications for permits to construct or modify an emission unit(s) *subject to the Prevention of Significant Deterioration (PSD)* should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP) located at 2600 Blirstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114.
- A.2 General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in *Appendix GC* of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. **[Rule 62-4.160, F.A.C.]**
- A.3 Emission Unit(s) Common Specific Conditions: The owner and operator is subject to and shall operate under the attached Emission Unit(s) Common Specific Conditions listed in *Appendix CSC* of this permit. The Emission Unit(s) Common Specific Conditions are binding and enforceable pursuant to Chapters 62-204 through 62-297 of the Florida Administrative Code.
- A.4 Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
- A.5 Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. **[Rule 62-210.900, F.A.C.]**
- A.6 Expiration: This air construction permit shall expire on **December 31, 1999**. **[Rule 62-210.300(1), F.A.C.]**. The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the permitting authority office of any delays in completion of the project which would affect the startup day by more than 90 days. **[Rule 62-4.090, F.A.C.]**
- A.7 Applicable Regulations: The facility is subject to the following regulations: Florida Administrative Code Chapters 62-4; 62-103; 62-204; 62-210; 62-212, 62-296, and 62-297. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. **[Rule 62-210.300, F.A.C.]**

AIR CONSTRUCTION PERMIT 0250476-002-AC AND PSD-FL-240

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. LISTING OF EMISSIONS UNITS

This permit addresses the following emission units.

| EMISSIONS UNIT NO. | SYSTEM | EMISSIONS UNITS DESCRIPTION |
|---------------------------|---------------|--|
| 007 | Power | 1.2 MW Digester Gas Electric Generator |
| 009 | Power | 1.2 MW Digester Gas Electric Generator |
| 010 | Power | 1.2 MW Digester Gas Electric Generator |
| 011 | Power | 1.2 MW Digester Gas Electric Generator |
| 013 | Power | 2.5 MW Diesel Electric Generator |
| 014 | Power | 2.5 MW Diesel Electric Generator |
| 015 | Power | 2.5 MW Diesel Electric Generator |

SUBSECTION B. SPECIFIC CONDITIONS (UNITS 013, 014 AND 015):

The following Specific Conditions apply to the following emission unit:

| EMISSION UNIT NO. | SYSTEM | EMISSION UNIT DESCRIPTION |
|--------------------------|---------------|----------------------------------|
| 013 | Power | 2.5 MW Diesel Electric Generator |
| 014 | Power | 2.5 MW Diesel Electric Generator |
| 015 | Power | 2.5 MW Diesel Electric Generator |

EMISSION LIMITATIONS

- B.1 The maximum allowable emission rates for NO_x for Units No. 013, 014 and 015 shall not exceed 58 pounds per hour (lb/hr) each and ~~375~~ 267 tons per year (TPY) combined pursuant to the Best Available Control Technology (BACT) Determination. [Rule 62-212.400(6), F.A.C.]
- B.2 Visible emissions shall be less than 20% opacity. [Rule 62-296.320, F.A.C.]
- B.3 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C.]

OPERATIONAL LIMITATIONS

- B.4 The emission unit is allowed to operate continuously (8760 hours/year). [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- B.5 Only No. 2 fuel oil can be fired in the diesel generator. The maximum sulfur content of the No. 2 fuel oil shall not exceed 0.05 percent, by weight. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].
- B.6 The combined maximum heat input rate to Units No. 013, 014 and 015 shall not exceed 81million Btu per hour (MMBtu/hr) at 100 percent load. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit].

AIR CONSTRUCTION PERMIT 0250476-002-AC AND PSD-FL-240

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

- B.7 The maximum No. 2 fuel oil consumption allowed to be burned in Units No. 013, 014 and 015 is ~~2,486,000~~ 1,800,000 gallons per year, which is equivalent to ~~4290~~ 3056 hours per year of operation at full load for each unit. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit]

TEST METHODS AND PROCEDURES

- B.8 Compliance with the allowable emission limiting standards for NO_x in B.1 shall be determined by using EPA Reference Method 7 (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.401, F.A.C.]
- B.9 The fuel shall be monitored for the sulfur content using ASTM D4294 Method (or equivalent), or by maintaining records of fuel sulfur content certifications, as provided by the fuel supplier. [Rule 62-297.440, F.A.C.]
- B.10 The permittee shall maintain daily records of fuel oil consumption for the emission unit. [Rule 62-210.200, F.A.C.]
- B.11 Compliance with the visible emission standard shall be demonstrated with EPA Reference Method 9 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.401, F.A.C.]

RECORDKEEPING AND REPORTING REQUIREMENTS

- B.12 All measurements, records, and other data required to be maintained by this facility shall be retained for at least five (5) years following the data on which such measurements, records, or data are recorded. These data shall be made available to the Department upon request. [Rule 62-4.070(3), F.A.C.]
- B.13 Two copies of the results of the emission tests for the pollutant listed in Condition B.1 for Units No. 13, 14 and 15 shall be submitted within forty-five days of the last sampling run to the Southeast District office in West Palm Beach. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310 (8), F.A.C. [Rule 62-297.310(8), F.A.C.]

AIR CONSTRUCTION PERMIT 0250476-002-AC AND PSD-FL-240

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION C. SPECIFIC CONDITIONS (UNITS 007, 009, 010 AND 011)

The following Specific Conditions apply to the following emission units:

| EMISSIONS UNIT NO. | SYSTEM | EMISSIONS UNITS DESCRIPTION |
|--------------------|--------|--|
| 007 | Power | 1.2 MW Digester Gas Electric Generator |
| 009 | Power | 1.2 MW Digester Gas Electric Generator |
| 010 | Power | 1.2 MW Digester Gas Electric Generator |
| 011 | Power | 1.2 MW Digester Gas Electric Generator |

EMISSION LIMITATIONS

- C.1 The maximum allowable emission rates for NO_x for Units No. 007, 009, 010 and 011 shall not exceed ~~5.3~~ 7.6 pounds per hour (lb/hr) each and ~~93~~ 133 tons per year (TPY) combined. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit.]
- C.2 Visible emissions shall be less than 20% opacity. [Rule 62-296.320, F.A.C.]
- C.3 In order to minimize excess emissions during startup/shutdown/malfunction this emission unit shall adhere to best operational practices. [Rule 62-210.700, F.A.C.]

OPERATIONAL LIMITATIONS

- C.4 The existing Units No. 007, 009, 010 and 011 are allowed to operate continuously (8760 hours per year). [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit]
- C.5 Only digester gas can be fired in the diesel generators 007, 009, 010 and 011. The maximum annual usage rate of the digester gas shall be 656,000,000 cubic feet. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit]

TEST METHODS AND COMPLIANCE PROCEDURES

- ~~C.6 The permittee shall maintain daily records of digester gas consumption for the emission units. [Rule 62-210.200, F.A.C., Definitions: Potential-to-Emit.]~~
- C.7 Compliance with the allowable emission limiting standards for NO_x in C.1 shall be determined by using EPA Reference Method 7 (or equivalent) as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in Rule 62-204.800, F.A.C. [Rule 62-297.401, F.A.C.]
- C.8 Compliance with the visible emission standard shall be demonstrated with EPA Reference Method 9 as described in 40 CFR 60, Appendix A (1996, version) adopted by reference in 62-204.800, F.A.C. [Rule 62-297.310, F.A.C.]

Mr. Syed Arif, P.E.
FDEP
New Source Review Section,
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Twin Towers Office Building
2600 Blair Stone Road, MS 5505
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Mr. Patrick Wong, P.E.
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