Miami-Dade Water and Sewer Department
Alexander Orr, Jr. Water Treatment Plant
Facility ID No.: 0250314
Miami-Dade County

# Title V Air Operation Permit Renewal

FINAL Permit Project No.: 0250314-017-AV

Florida Department of Environmental Protection
Southeast District Office, Air Program
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401
Telephone: 561-681-6600
Fax: 561-681-6790

# Title V Air Operation Permit Renewal

## FINAL Permit No.: 0250314-017-AV

## Table of Contents

**Section** **Page Number**

Placard Page ..... .1

I. Facility Information ..... 2
- A. Facility Description.
- B. Summary of Emissions Unit ID No., and Brief Description.
- C. Relevant Documents.

II. Facility-wide Conditions .....4

III. Emissions Units and Conditions
- A. Rotary Lime Recalcining Kiln.....8
- B. Standby Diesel Engine Generators .....11
- C Pump Room Emergency Diesel Engine Generator .....14

# Florida Department of Environmental Protection

Southeast District Office
400 N. Congress Avenue, Suite 200
West Palm Beach, FL 33401

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

Permittee:
Miami-Dade Water and Sewer Department
PO Box 330316
Miami, FL 33233-0316

FINAL Permit No.: 0250314-017-AV
Facility ID No.: 0250314
SIC No.: 4941
Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V Air Operation Permit. This existing facility is located at 6800 SW 87th Avenue, Miami, Miami-Dade County; UTM Coordinates: Zone 17, 565.92 km East, 2843.33 km North; Latitude: 25° 42' 28" North, Longitude: 80° 20' 11" West.

This Title V Air Operation Permit Renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawings, plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

**Referenced attachments made a part of this permit:**
APPENDIX I-1, List of Insignificant Emission Units and/or Activities
APPENDIX U, List of Unregulated Emission Units and/or Activities
APPENDIX TV-6, TITLE V CONDITIONS version dated 6/23/06
APPENDIX SS-1, STACK SAMPLING FACILITIES version dated 10/07/96

Effective Date: December 26, 2010
Renewal Application Due Date: April 19, 2015
Expiration Date: December 25, 2015

_____ _____
Kevin Claridge Date
Assistant District Director

KC/LA/md

## Section I. Facility Information.

This existing facility consists of a publicly-owned regional water treatment plant that processes up to 241.7 million gallons per day of raw water for public water supply using a lime softening process, which includes softening, recarbonation, disinfection, and filtration. Electrical power necessary for continuous plant operations is provided by a bank of diesel-driven generators. Engine-driven high service pumps convey water to the consumer via the County wide distribution system and provide redundancy and standby capacity to electric motor-driven units.
A rotary kiln recovers the water softening process solids for conversion back to quick lime for process reuse on site. An emergency generator at the kiln and an emergency kiln rotation engine provide redundancy to standby generators for critical functions.

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

Based on the Title V Air Operation Permit Renewal application received June 2, 2010, this facility is not a major source of hazardous air pollutants (HAP).

### Subsection A. Summary of Emissions Units ID No., and Brief Descriptions.

| E.U. ID No. | Brief Description |
|---|---|
| 007 | Rotary Lime Recalcining Kiln, designed to produce 150 TPD of calcium Oxide fire by natural gas |
| 009 | Standby Diesel Engine Generator # 1, EMD Model 20-645F4B |
| 010 | Standby Diesel Engine Generator # 2, EMD Model 20-645F4B |
| 011 | Standby Diesel Engine Generator # 3, EMD Model 20-645F4B |
| 012 | Standby Diesel Engine Generator # 4, EMD Model 20-645F4B |
| 023 | Pump Room Emergency Diesel Engine Generator, CAT Model 3508TA-130, 900kW |
| 024 | Standby Diesel Engine Generator # 5, EMD Model 20-645F4B |

Unregulated Emissions Units and/or Activities

| EU ID No. | Brief Description |
|---|---|
| 005* | Engine driven pump rated at 1,500 hp fired with diesel fuel, or natural gas, unit No.5 |
| 006* | Engine driven pump rated at 2,113 hp fired with diesel fuel, or natural gas, unit No.6 |
| 018 | Natural Gas Engine Driven Pump, Caterpillar Model 3512 LE-130 Pump No. 3 |
| 019 | Natural Gas Engine Driven Pump, Caterpillar Model 3512 LE-130 Pump No. 4 |
| 021 | Backup generator for rotary kiln rated at 250 kW |
| 022 | Railcar lime unloading rack |

*****Unregulated emissions units 005, and 006 these two unregulated emissions units are shut down pending replacement, and subject to a future construction permit.

***Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.***

## Subsection B. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History
Statement of Basis

These documents are on file with the permitting authority:
Initial Title V Permit Application received June 17, 1996
Application for a Title V Air Operation Permit Revision & Renewal received February 04, 2005
FINAL permit issued on January 12, 2006
Application for a Title V permit Revision Received June 2, 2010

## Section II. Facility-wide Conditions.

## The following conditions apply facility-wide:

1. APPENDIX TV-6, TITLE V CONDITIONS, is a part of this permit.

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard.
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Documents on file with USEPA
The Responsible Official has certified that the Risk Management Plan was submitted to the RMP Reporting Center.

5. Prevention of Accidental Releases (Section 112(r) of CAA).
a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
**c.** The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.

Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to:

Department of Community Affairs
Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
Telephone: 850/413-9921, Fax: 850/488-1739

Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, MD 20703-1515
Telephone: 301/429-5018

Any required reports to be sent to the National Response Center, should be sent to:

National Response Center
EPA Office of Solid Waste and Emergency Response

USEPA (5305 W)
401 M Street, SW
Washington, D.C. 20460
Telephone: 1/800/424-8802

Send the required annual registration fee using approved forms made payable to:
Cashier
Department of Community Affairs
State Emergency Response Commission
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

6. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

**7.** Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]

8. Compliance Plan. Based on the application, (an) emissions unit(s) (was/were) not in compliance. Appendix CP-1, Compliance Plan, is a part of this permit.
[Rule 62-213.440(2), F.A.C.]

9. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

10. Emissions of Unconfined Particulate Matter. Pursuant to Rule 62-296.320(4)(c), F.A.C., and the renewal application received June 2, 2010, this facility will comply with the following precautions to control unconfined particulate matter (see Condition 57. of APPENDIX TV-6, TITLE V CONDITIONS, and Attachment C of application).

- Paving and maintenance of roads, parking areas and yards.
- Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
- Landscaping or planting of vegetation.
- Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
- Confining abrasive blasting where possible.
- Enclosure or covering of conveyor systems.

[Rule 62-296.320(4)(c), F.A.C.; and/renewal Title V permit application received June 2, 2010,

11. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.
[Rule 62-213.440, F.A.C.]

12. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

*{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of APPENDIX TV-6, TITLE V CONDITIONS)}*

13**.** The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southeast District Office.

Florida Department of Environmental Protection
Southeast District Office, Air Program
400 North Congress Avenue, Suite 200
West Palm Beach, Florida 33401
Telephone: 561/681-6600
Fax: 561/681-6790

Local Program
Miami-Dade County Department of Environmental
Resources Management
Air Quality Management Division
Overtown Transit Village North,
701 NW 1st Court, Miami, Florida, 33136
Telephone 305/372-6925
Fax 305/372-6954

14. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155; Fax: 404/562-9163

15. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.
[Rule 62-213.420(4), F.A.C.]

16. Test Notification: Unless otherwise specified in this permit, the Department of Environmental Protection, Southeast District Office, Air Program shall be notified in writing of expected compliance test dates at least fifteen (15) days prior to test.

17. Testing at Capacity: Compliance testing shall be conducted with the emission units operating at the permitted capacity (90 to 100% of the maximum permitted operation rate of the emission

units). If an emission unit is not tested at permitted capacity, the emission unit shall not be operated above 110% of the test load until a new test showing compliance is conducted. Operation of the emission unit above 110% of the test load is allowed for no more than fifteen days for the purpose of conducting additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

18. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emission or questionable maintenance of control equipment) to believe that any applicable emission standard in Rules 62-204 through 62-297 or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the emission unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emission unit and to provide a report on the results of said tests to the Department.
[Rule 62-297.310(7)(b), F.A.C.]

19. Compliance Test Reports: Compliance test reports shall be submitted to the Department of Environmental Protection, Southeast District Office, Air Compliance Section, as soon as practical, but no later than 45 days after the last sampling run of each test is completed.
Test reports shall provide sufficient detail on the emission unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. Test reports, other than for an EPA or DEP Method 9 test, shall include the following information and other information as necessary to make a complete report required pursuant to Rule 62-297.310(8)(c), F.A.C.:

1. The type, location, and designation of the emission unit tested.
2. The facility at which the emission unit is located.
3. The owner or operator of the emission unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emission unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals, who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.

18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emissions standard and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted is true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
    [Rule 62-297.310(8)(a) & (b), F.A.C.]

**Section III. Emissions Unit and Conditions.**

**Subsection A. This section addresses the following emissions unit.**

| E.U. ID No. | Brief Description |
|---|---|
| 007 | Rotary Lime Recalcining Kiln, designed to produce 150 TPD of Calcium Oxide (CaO) fired by Natural Gas. |

Calcium carbonate from the plant's water treatment process is fed to the lime kiln where it is converted into lime products and carbon dioxide (CO2). The CO2 is recycled into the recarbonation basins at the water treatment plant where it is used to stabilize the water chemically, after the softening process. A venture scrubber at the feed end of the kiln is used to recover lime solids that would otherwise be lost to the atmosphere and also serves to reduce particulate matter emissions from the exhaust. Lime solids are discharged into an integral tube cooler at the firing end of the kiln.

This emission unit is not subject to Compliance Assurance Monitoring (CAM) because the wet scrubber installed at this emission unit meets the definition of inherent process equipment in accordance with the Subpart 40 CFR 64.1. The primary purpose of this control devise is product recovery. Furthermore, the efficiency at which the control equipment is operated by design for purposes other than compliance with the applicable emission limits is more than sufficient to assure compliance with the emissions limit specified in Rule 62-296.320(4)(a), F.A.C.

*{Permitting note: This emission unit is regulated under Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT) Determination dated August 1, 1980}*

**Essential Potential to Emit (PTE) Parameters**

A.1. Methods of Operation - (i.e., Fuels). The only fuel allowed to be burned is natural gas.
[Rule 62-213.410, F.A.C.]

A.2. This emission unit is allowed to operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

**Emission Limitations and Standards**

A.3. Particulate Matter (PM): PM emissions shall not exceed 0.85 lb. /ton input (dry) and 9.8 pounds per hour.
[BACT Determination dated August 1, 1980]

*{Permitting note: The recalcining kiln input (dry) is indirectly determined by flow measurement and specific gravity of the lime mud feed}*

A.4. Nitrogen Oxides Emissions (NOx): NOx emissions shall not exceed 3.0 lb. /ton product and 18.8 pounds per hour.
[BACT Determination dated August 1, 1980]

*{Permitting note: The tons of product from the recalcining kiln is indirectly determined by the lime mud feed input (dry) divided by 1.785 (the ratio of the molecular weight of $CaCO_3$ and CaO), assuming that the lime mud feed consists entirely of Calcium Carbonate ($CaCO_3$) and is converted entirely to Calcium Oxide (CaO).*

**Test Methods and Procedures**

A.5. PM Testing: Compliance with PM shall be demonstrated each federal fiscal year (Oct. 1-Sept. 30) by using EPA Method 5 as described in 40CFR60, Appendix A.
[BACT Determination dated August 1, 1980]

A.6. Nitrogen Oxide (NOx) Emissions Tests: Compliance with the emissions limits for NOx of this permit shall be demonstrated each federal fiscal year (Oct.1-Sept. 30) by using EPA Method 7 or 7E, as described in 40 CFR 60, Appendix A (1997 version), adopted by reference in Rule 62-204.800, F.A.C., and adopted in Rule 62-297.401, F.A.C.
[BACT Determination dated August 1, 1980]

**Recordkeeping and Reporting Requirements**

A.7. All records shall be prepared no later than fifteen calendar days after the end of each month.
[Rule 62-4.070(3), F.A.C.]

**Subsection B. This section addresses the following emissions units.**

| E.U. ID No. | Brief Description |
|---|---|
| 009 | Standby Diesel Engine Generator # 1, EMD model No. 20-645F4B |
| 010 | Standby Diesel Engine Generator # 2, EMD model No. 20-645F4B |
| 011 | Standby Diesel Engine Generator # 3, EMD model No. 20-645F4B |
| 012 | Standby Diesel Engine Generator # 4, EMD model No. 20-645F4B |
| 024 | Standby Diesel Engine Generator # 5, EMD model No. 20-645F4B |

Standby electrical power for the continuous plant operation is provided from a bank of these diesel-driven generators, all engines are General Motors Electro-Motive Diesel (EMD) model 20-645F4B, each with a nominal base load rating of 2.865 megawatts (MW) driven by a 4,000 bhp prime mover. Each prime mover is a 20 cylinder 2-cycle turbocharged diesel fueled engine. The engines burn transportation grade diesel fuel oil with a sulfur content of 0.05 percent or less, by weight. Fuel oil consumption for these emissions units is limited to 1,415,000 gallons per year. These emissions units are subject to regulation under Rule 62-212.400, F.A.C. Prevention of Significant Deterioration (PSD) and are subject to the requirements of the state rules as indicated in the Tile V operation permit renewal.

Emissions units 009-012, are regulated under Prevention of Significant Deterioration (PSD-FL-249); Rule 62-212.400(6), F.A.C., (dated 2/5/98), and Best Available Control Technology (BACT) Determination, dated May 19, 1998. Emissions Unit 024 is regulated under construction permit 0250314-009-AC

**Performance Restriction**

B.1. Hours of Operation: These emission units may operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200, F.A.C., (PTE)]

B.2. Methods of Operation - (i.e., Fuels): These emission units shall be fired with diesel fuel with a maximum sulfur content of 0.05 percent sulfur by weight. Fuel consumption of all emission units combined shall not exceed 1,415,000 gallons of diesel fuel in any consecutive 12-month period
[Rule 62-210.200, F.A.C.; PSD-FL-249, and Permit 0250314-009-AC]

B.3. Permitted Capacity: The maximum heat input rate for each unit is 27 MMBtu per hour (approximately 197 gallons per hour).

*{Permitting Note: The maximum heat input rate is based on a higher heating value of 19,640 Btu/lb. and density of 7.034 pounds per gallon of diesel}*
[Rule 62-210.200(PTE), F.A.C., and Permit 0250314-009-AC]

B.4. Operational Restrictions (EU 009-012 and 024): No more than four of the five units in the standby generators bank shall operate at any given time except for a brief period, not to exceed 15 minutes per instance, solely for the purpose of replacing a running generator with another unit. In such cases, five units may be in operation while one unit is started up and stabilized and the unit being replaced is shutdown.
[Rule 62-4.070(3), F.A.C. and Permit 0250314-009-AC]

B.5 Operational Restriction (EU 024): The backup standby generator unit # 5(EU 024) shall not be used for peak shaving. The total fuel consumption of this standby generator and standby generator # 6 (EU 025 not installed yet) shall not exceed 660,000 gallons in any consecutive 12-month.
[Rule 62-4.070(3), F.A.C. and Permit 0250314-009-AC]

**Emission Limitations and Standards**

B.6. Visible Emissions: Compliance with the visible emissions shall be demonstrated each federal fiscal year (Oct 1-Sept 30) using EPA Method 9. See condition 2 in Section II, Facility-Wide conditions.
[Rule 62-296.320(4)b, F.A.C.]

B.7. Nitrogen Oxides (NOx) Emissions: Emissions of $NO_x$ shall not exceed 4.12 lb. /MMBtu, as determined by the average of three 1-hour compliance test runs conducted in accordance with EPA, Method 7 or 7E.
[Rule 62-212.400, F.A.C. and BACT Determination for PSD-FL-249]

*{Permitting note: This equivalent to NOx emissions rate of approximately 111 pounds per hour at 100% engine load for each unit. NOx emissions from the bank of five standby generators is limited to 403 tons per year by the conditions of permit No. 0250314-009-AC and PSD-FL-249}.*

**Compliance Monitoring and Testing Requirements**

B.8. Nitrogen Oxide (NOx) Emissions Tests: Compliance with the emissions limits for NOx of this permit shall be demonstrated each federal fiscal year (October 1-September 30), if applicable, by using EPA Method 7 or 7E, as described in 40 CFR 60, Appendix A, adopted by reference in Rule 62-204.800, F.A.C., and adopted in Rule 62-297.401, F.A.C. Sampling of the exhaust gas shall be via a rake probe placed into the engine exhaust outlet.
[Rules 62-4.070(3), 62-204.800, 62-297.310, and 62-297.401, F.A.C.]

B.9. Fuel Sulfur Content Tests: For each load of fuel delivered to the facility, the permittee shall either:

a. Obtain a copy of the fuel analysis from the supplier. Methods for determining the fuel sulfur content of the distillate oil shall be ASTM Method D 129-91, ASTM D 2622-94, ASTM D 4294-98 or comparable Department approved method. Records shall specify the test method used.

b. Collect a fuel sample to be sent for laboratory analysis based on one of the following methods: ASTM Method D 129-91, ASTM D 2622-94, ASTM D 4294-98 or comparable Department approved method.

c. Records from the fuel supplier that indicates the fuel delivered is Low Sulfur No. 2 Diesel fuel oil by ASTM Method 975-98b, or current version. Specification for Diesel Fuel Oils provides for this classification of diesel fuel oils as having no more than 0.05 percent sulfur content by weight.

[Rules 62-4.070(3), 62-297.440, F.A.C. and PSD-FL-249, and Permit 0250314-009-AC]

B.10. Fuel Consumption: The owner or operator shall monitor fuel consumption by metering the fuel between the storage tank and the bank of generators on a daily basis.
[Rule 62-4.070(3), F.A.C.]

B.11. Monitors: The owner or operator shall install, calibrate, operate and maintain monitoring devices to monitor and record the fuel flow and hours of operation
[Rule 62-4.070(3), F.A.C., and Permit 0250314-009-AC]

B.12. Meter Fuel Calibration: Calibration of the fuel meter shall be conducted in accordance with manufacturer's schedule and recommendation.
[Rule 62-4.070(3), F.A.C.]

B.13. Operating Procedures: These emission units shall be properly operated and maintained at all times in a condition to minimize emissions of air pollutants. The owner and operator shall ensure that all facility staff responsible for these emissions units is trained in their operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers.
[Rule 62-4.070(3), F.A.C. and PSD-FL-249]

**Reporting and Recordkeeping Requirements**

B.14. Diesel Fuel Consumption Records: The permittee shall record and maintain fuel usage records for the bank of generators, including operation for repairs or maintenance, on a daily basis. The diesel fuel usage records for the generators shall be based on daily fuel meter readings. Within ten days of the end of each month, the owner or operator shall make records of monthly diesel fuel consumption from the daily records, and shall make records of consecutive 12 month diesel fuel consumption to demonstrate compliance with the fuel consumption limit of specific condition B.2 of this permit.
[Rule 62-4.070(3), F.A.C. and PSD-FL-249, and Permit 0250314-009-AC]

B.15. Fuel Sulfur Content Records: The owner or operator shall maintain records of sulfur content of each delivery of diesel fuel received for these emissions units.
[Rule 62-4.070(3), F.A.C. and PSD-FL-249]

B.16. Records of Maintenance: The owner or operator shall make and maintain records of maintenance activities conducted on these units including periodic tuning, sufficient to demonstrate compliance with the operating procedure requirements in this permit.
[Rule 62-4.070(3), F.A.C. and PSD-FL-249, and Permit 0250314-009-AC]

B.17. AOR Supplemental Information: Annual operating reports shall include the following supplemental information that was recorded in the previous calendar year:

a. The highest consecutive 12 months total diesel fuel usage for the standby generators
b. Records of the fuel meter calibration
c. The highest percent sulfur content (by weight) of diesel fuel received
d. A statement by the permittee that the fuel sulfur limitation was or was not exceeded during the previous calendar year
e. A statement by the permittee whether or not the records of fuel supplier certifications maintained by the permittee represent all fuel oil burned during the previous calendar year

[Rule 62-4.070(3), F.A.C.]

**Subsection C. This section addresses the following emission unit.**

| EU No. | Brief Description |
|---|---|
| 023 | Pump Room Emergency Diesel Engine Generator, Caterpillar Model 3508 TA-130, 900 kW |

{This emissions unit is subject to the Reasonable Available Control Technology (RACT) requirements of Rule 62-296.570(4)(b)7, F.A.C. which limits the emissions of NOx to 4.75 lb/MMBtu from this diesel fired generator. The unit supplies emergency electrical power for the operation of the plant's north pump room in the event of a power loss.}

The following specific conditions apply to the emissions unit listed above:

**Essential Potential to Emit (PTE) Parameters**

C.1. Hours of Operation: The hours of operation for this emission unit shall not exceed 500 hours in any consecutive 12-month period.
[Rule 62-210.200, F.A.C., Definitions-Potential to emit (PTE), 0250314-005-AC, & 0250314-007-AC]

C.2. Fuel: The emissions unit shall be fired with diesel fuel with a maximum sulfur content of 0.05 percent, by weight.
[Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE), 0250314-005-AC, & 0250314-007-AC]

*{Permitting note: At 100% engine load a Model 3508 engine fuel consumption is 66.5 gallons per hour, based on a 35-degree API diesel fuel with a higher heating value of 18,390 Btu/lb. On this basis, the fuel consumption for 500 hours of operation at 100 percent engine load is* approximately 33,250 gallons.}

C.3. Operating Procedures: This emissions unit shall be properly operated and maintained at all times in a condition to minimize emissions of air pollutants. The owner and operator shall ensure that all facility staff responsible for this emissions unit is trained in the operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturer(s).
[0250314-005-AC & 0250314-007-AC]

**Emissions Limitations and Standards**

C.4. Visible Emissions. Visible emissions from this unit are subject to the General Visible Emission Standards. See condition No.3 in Section II, Facility-Wide Conditions.
Excess emissions resulting from startup, shutdown or malfunction shall be permitted providing
(1) best operational practices to minimize emissions are adhered to and
(2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration
[Rules 62-296.320(4)b, 62-210.700(1), F.A.C., 0250314-005-AC, & 0250314-007-AC]

C.5. Nitrogen Oxides (NOx) Emissions: Emissions of NOx shall not exceed 4.75 lb/MMBtu.
[Rule 62-296.570(4)(b)7, F.A.C., 0250314-005-AC, & 0250314-007-AC]

**Compliance Monitoring and testing Requirements**

C.6. Visible Emissions: Compliance with the visible emissions limitation shall be determined each federal fiscal year (Oct. 1-Sept. 30) using EPA Method 9 contained in 40 CFR 60, Appendix A and adopted by referenced in Rule 62-297, F.A.C. The minimum requirements for stationary point sources emission test procedures and reporting shall be in accordance with Rule 62-297, F.A.C. and 40 CFR 60 Appendix A.
[Rule 62-297, F.A.C., 0250314-005-AC, & 0250314-007-AC]

C.7. Nitrogen Oxide (NOx) Emissions Tests: Compliance with the emissions limit for NOx of this permit shall be demonstrated each federal fiscal year (October 1-September 30), if applicable, by using EPA Method 7 or 7E, as described in 40 CFR 60, Appendix A, adopted by reference in Rule 62-204.800, F.A.C., and adopted in Rule 62-297.401, F.A.C. Sampling of the exhaust gas shall be via a rake probe placed into the engine exhaust outlet. Annual compliance testing while firing oil is unnecessary for units operating on oil for less than 400 hours in the current federal fiscal year.
[Rules 62-296.570(4)(a)3, and 62-297.401, F.A.C.]

C.8. Fuel Sulfur Content Tests: The owner or operator shall determine the sulfur content of each delivery of diesel fuel received for this emissions unit using ASTM D 4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products and one of the following test methods for sulfur in petroleum products: ASTM D 129-91, ASTM D 2622-94, or ASTM D 4294-90. These methods are adopted by Rule 62-297.440, F.A.C. The owner or operator may comply with this requirement by receiving records from the fuel supplier that indicate the sulfur content of the fuel delivered complies with the sulfur limit of specific condition C.2.
[Rule 62-297.440, F.A.C., 0250314-005-AC, & 0250314-007-AC]

C.9. Fuel Consumption: The owner or operator shall monitor the hours of operation of the emissions unit with an hour meter.
[0250314-005-AC & 0250314-007-AC]

**Reporting and Recordkeeping Requirements**

C.10. Hour Meter Calibration: Calibration of the hour meter shall be conducted in accordance with manufacturer's schedule and recommendation.
[0250314-005-AC & 0250314-007-AC]

C.11. Fuel Sulfur Content Records: The owner or operator shall maintain records of sulfur content of each delivery of diesel fuel received for the emission unit.
[0250314-005-AC & 0250314-007-AC]

C.12. Records of Maintenance: The owner or operator shall make and maintain records of maintenance sufficient to demonstrate compliance with the operating procedure requirements of specific condition C.3., of this permit.
[0250314-005-AC & 0250314-007-AC]