

Florida Department of
Environmental Protection

Memorandum

TO: ~~Howard L. Rhodes~~ *by aaj*
THRU: Al Linero *aaj* 10/29
FROM: Syed Arif *Syed Arif*
DATE: October 29, 2002
SUBJECT: Miami-Dade Water & Sewer Department
Alexander Orr, Jr. WTP
Three Natural Gas Fueled Engine Driven Pump Sets

Attached for approval and signature is the final construction permit for MDWASD's Alexander Orr, Jr. Water Treatment Plant. The permit is to remove existing pumps and engines numbers 1 and 2, replacing the (pump/generator) capacity of engine number 1 with a diesel fueled engine driven emergency generator set and to replace existing diesel fueled engine driven pump numbers 3, 4 and 5 with three natural gas fueled engine driven pumps.

The existing pump engines are fuel oil fired. The replacement engines have significantly lower air pollutant emissions per unit of work. The replacement emergency generator is restricted to 500 hours of operation annually. This restriction will keep nitrogen oxides emissions below the PSD significance levels. With the exception of carbon monoxide, potential emissions from the new engines are not expected to significantly increase compared to the past actual emissions of the existing engines. Carbon monoxide emissions do not increase above the PSD significance levels. An air quality impact analysis was not required or conducted.

The original permitting was done in 1999. The units proposed in the previous permit were not installed, the emission increment was not consumed and this project replaces the previous one.

The applicant in response to the public notice submitted comments, which were satisfactorily responded to in the final determination.

October 29 is day 62 of the project.

I recommend your approval and signature.

Attachments

/sa

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Mr. Jorge S. Rodriguez, P.E., Asst. Director - Water
Miami-Dade Water & Sewer Department
3071 SW 38th Avenue
Miami, Florida 33146-1520

DEP File No. 0250314-005-AC
Alexander Orr, Jr. WTP
Natural Gas Fueled Engine Driven Pump Sets
Miami-Dade County

Enclosed is Final Permit Number 0250314-005-AC. This permit authorizes Miami-Dade Water & Sewer Department to remove existing pumps and engines numbers 1 and 2, replacing the (pump/generator) capacity of engine number 1 with a diesel fueled engine driven emergency generator set and to replace existing diesel fueled engine driven pump numbers 3, 4 and 5 with three natural gas fueled engine driven pumps at the Alexander Orr, Jr. water treatment plant. 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.



A. A. Linero, P.E.
Bureau of Air Regulation

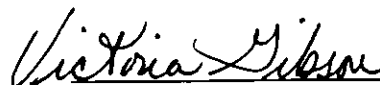
CERTIFICATE OF SERVICE

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 10/30/02 to the person(s) listed:

Mr. Jorge S. Rodriguez, P.E., Miami-Dade WASD*
Mr. Richard O'Rourke, P.E., WASD (via e-mail)
Mr. Tom Tittle, DEP, SED
Mr. Patrick Wong, DERM

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.

 October 30, 2002
(Clerk) (Date)

FINAL DETERMINATION

Miami-Dade Water & Sewer Department Alexander Orr, Jr. Water Treatment Plant DEP File Number 0250314-005-AC

An Intent to Issue an Air Construction Permit Modification to Miami-Dade Water & Sewer Department (WASD) Alexander Orr, Jr. Water Treatment Plant, located at 6800 SW 87 Avenue, Miami, Miami-Dade County, Florida, was distributed on September 30, 2002. The Public Notice of Intent to Issue Air Construction Permit was published in the Miami Daily Business Review on October 2, 2002. Copies of the draft air construction permit were available for public inspection at the Department offices in West Palm Beach, Miami and Tallahassee.

The applicant submitted comments regarding specific conditions for the emergency generator. The comments and Department's responses are as follows:

Comment 1

1. Hours of Operation: WASD requests that this condition be changed to read: "1. Hours of Operation: The hours of operation for this emission unit shall not exceed 500 hours in any consecutive 12-month period."

Department's Response

The Department will change Specific Condition 1 of Emission Unit 023 as follows:

1. Hours of Operation: The hours of operation for this emission unit may operate for shall not exceed 500 hours/year hours in any consecutive 12-month period. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]

Comment 2

2. Fuel: WASD requests that the last two sentences regarding fuel consumption be removed and the condition be revised to read: "2. Fuel: The emission unit shall be fired with diesel fuel with a maximum sulfur content of 0.05 percent, by weight. {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.}"

Department's Response

The Department will change Specific Condition 2 of Emission Unit 023 as follows:

2. Fuel: The emission unit shall be fired with diesel fuel with a maximum sulfur content of 0.05 percent, by weight. ~~Fuel consumption shall not exceed 33,250 gallons of diesel fuel in any consecutive 12-month period. The owner or operator shall keep monthly records of total fuel consumption for the emission unit.~~ [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]

{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.}

Comment 3

9. Fuel Consumption: WASD requests that this condition be changed to: “9. Hours of Operation: The owner or operator shall monitor the hours of operation of the emission units with an hour meter.”

Department’s Response

The Department will change Specific Condition 9 of Emission Unit 023 as follows:

9. ~~Fuel Consumption~~ Hours of Operation: The owner or operator shall monitor ~~fuel consumption by metering the fuel between the storage tank and the emission unit~~ the hours of operation of the emission unit with an hour meter. [Rule 62-4.070(3), F.A.C.]

Comment 4

10. Meter Fuel Calibration: WASD recommends that this condition be removed in its entirety.

Department’s Response

The Department does not agree with the applicant’s request. Since an hour meter is required to keep track of the hours of operation for this emission unit, the Department will require calibration of the hour meter in accordance with the manufacturer’s schedule and recommendation. The Department will change Specific Condition as follows:

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

The final action of the Department is to issue the permit with the changes noted above.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

PERMITTEE

Miami-Dade Water & Sewer Department
Alexander Orr, Jr. WTP

3071 SW 38th Avenue
Miami, Florida 33146-1520

Authorized Representative:

Mr. Jorge S. Rodriguez, P.E.
Assistant Director – Water

Permit No.	0250314-005-AC
Project	Three Natural Gas Fueled Engine Driven Pump Sets
SIC No.	4941
Expires:	December 31, 2003

PROJECT AND LOCATION

The permit authorizes Miami-Dade Water & Sewer Department to remove existing pumps and engines numbers 1 and 2, replacing the (pump/generator) capacity of engine number 1 with a diesel fueled engine driven emergency generator set and to replace existing diesel fueled engine driven pump numbers 3, 4 and 5 with three natural gas fueled engine driven pumps.

This facility is located at the Alexander Orr, Jr. Water Treatment Plant, 6800 SW 87 Avenue, Miami, Miami-Dade County. UTM coordinates are: Zone 17; 566.6 km E and 2843.5 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 perform the construction 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).

APPENDIX

The attached appendix is a part of this permit:

Appendix GC General Permit Conditions


for Howard L. Rhodes, Director
Division of Air Resources
Management

"More Protection, Less Process"

Printed on recycled paper.

SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

This facility consists of a municipally owned water treatment plant providing potable water to the public.

PROJECT DETAILS

This permitting action is to remove existing pumps and engines numbers 1 and 2, replacing the (pump/generator) capacity of engine number 1 with a diesel fueled engine driven emergency generator set and to replace existing diesel fueled engine driven pump numbers 3, 4 and 5 with three natural gas fueled engine driven pumps. Emissions units that will be removed are 001 (engine and pump #1), 002 (engine and pump #2 which were previously removed from service), 003 (engine and pump #3), 004 (engine and pump #4), and 005 (engine and pump #5). Emissions units addressed by this permit are:

Emissions Unit No.	Emissions Unit Description
023 ¹	1332 brake hp diesel fired Caterpillar Model 3508 TA-130, a 4-cycle turbocharged diesel internal combustion (IC) engine driving an electric generator prime rating 900 kW. Maximum heat input rate is 9.2 mmBtu/hr.
018 ²	810 brake hp natural gas fired Caterpillar Model G3512 LE-130 engine for pump 3. Maximum heat input rate is 6.00 mmBtu/hr. Pump has a designed 20 million gallons per day (MGD) water pumping capacity.
019 ²	810 brake hp natural gas fired Caterpillar Model G3512 LE-130 engine for pump 4. Maximum heat input rate is 6.00 mmBtu/hr. Pump has a designed 20 MGD water pumping capacity.
020 ²	2090 brake hp natural gas fired Caterpillar Model G3608 LE engine for pump 5. Maximum heat input rate is 13.70 mmBtu/hr. Pump has a designed 40 MGD water pumping capacity.

1 – New Emission Unit

2 – Previously Permitted Emission Units

REGULATORY CLASSIFICATION

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 250 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD).

This project is exempt from the requirements of Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) as discussed in the Technical Evaluation and Preliminary Determination dated September 25, 2002.

The emission unit 023 in this project is subject to the Reasonable Available Control Technology (RACT) requirements of 62-296.570(4)(b)7 which limits the emissions of NO_x to 4.75 lb/MMBtu from oil fired diesel generator.

SECTION I. FACILITY INFORMATION

The emissions units (18, 19 and 20) included in this project are not subject to any unit-specific emission limiting standard (considered "unregulated" for purposes of Title V permitting).

PERMIT SCHEDULE

- 05/13/02 Received application for construction permit
- 08/05/02 Permit application deemed complete
- 09/30/02 Distributed Notice of Intent to Issue permit
- 10/02/02 Notice of Intent published in Miami Daily Business Review

RELEVANT DOCUMENTS

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

- Application received at the Bureau of Air Regulation on May 13, 2002
- Department's letter dated June 10, 2002
- Applicant's response received August 5, 2002
- Department's Technical Evaluation and Preliminary Determination dated September 25, 2002
- Department's Intent to Issue and public notice information dated September 30, 2002
- Applicant's comments (e-mail letter) in response to the draft permit dated October 15, 2002

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's Southeast District office at PO Box 15425, West Palm Beach, Florida, 33416-5425, and phone number 561/681-6600. Copies of all documents should be sent also to the Air Quality Management Division, Miami-Dade County Department of Environmental Resources Management, Suite 900 33 SW Second Avenue, Miami, Florida 33130-1540.
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.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. 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. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on **December 31, 2003**. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]
7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for and receive a Title V operation permit prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Southeast District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

EMISSION LIMITING STANDARDS

9. 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% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]

10. General Pollutant Emission Limiting Standards: [Rule 62-296.320(2), F.A.C.]

No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Note: An objectionable odor is defined in Rule 62-210.200(198), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

OPERATIONAL REQUIREMENTS

11. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's district office and, if applicable, appropriate local program. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

12. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

13. Excess Emissions:

(a) Excess emissions resulting from start-up, shutdown or malfunction of any emissions units 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. [Rule 62-210.700(1), F.A.C.]

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

- (b) Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

14. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20 percent below the allowable emission limiting standards. [Rule 62-297.310(1), F.A.C.]
15. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emission shall be conducted with the emission unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emission unit may be tested at less than the minimum permitted capacity; in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
16. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule.
17. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]
18. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]
19. Determination of Process Variables.
- (a) Required Equipment. The owner or operator of an emission unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

variables, such as process weight input or heat input, when such data are needed in conjunction with emission data to determine the compliance of the emission unit with applicable emission limiting standards.

- (b) Accuracy of Equipment: Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value. [Rule 62-297.310(5), F.A.C.]
20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. See Appendix SS-1, Stack Sampling Facilities. [Rule 62-297.310(6), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

21. Test Notification: The owner or operator shall notify the Department's Southeast District office, Air Program and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
22. Duration of Record Keeping: 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. 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 this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
23. Test Reports: The owner or operator of an emission unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report 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. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
24. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. [Rule 62-4.130, F.A.C.]

25. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department or the appropriate local program in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]
26. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Southeast District office and, if applicable, the appropriate local program by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions apply to the following emission unit after construction:

Emissions Unit No.	Emissions Unit Description
023	1332 brake hp diesel fired Caterpillar Model 3508 TA-130, a 4-cycle turbocharged diesel internal combustion (IC) engine driving an electric generator prime rating 900 kW. Maximum heat input rate is 9.2 mmBtu/hr.

[Note: This emission unit is subject to the NO_x RACT requirements of 62-296.570, F.A.C.]

OPERATIONAL REQUIREMENTS

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)]
2. Fuel: The emission 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)]
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.
3. Operating Procedures: The emission 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 the emission unit is trained in the operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers. [Rule 62-4.070(3), F.A.C.]

EMISSION LIMITATIONS AND STANDARDS

4. Visible Emission: These emission units are subject to the General Visible Emission Standards. See condition 9 in Section II, Facility-Wide Specific Conditions. [Rule 62-296.320(4)(b), F.A.C.]
5. Nitrogen Oxides (NO_x) Emission: Emission of NO_x shall not exceed 4.75 lb/MMBtu. [Rule 62-296.570(4)(b)7, F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

6. Visible Emission: Compliance with the visible emission 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 reference 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.]
7. Nitrogen Oxide (NO_x) Emission Tests: Compliance with the emission limits for NO_x of this permit shall be demonstrated each federal fiscal year (Oct.1-Sept. 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.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

8. Fuel Sulfur Content Tests: The owner or operator shall determine the sulfur content of each delivery of diesel fuel received for these emission units 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 2. [Rules 62-4.070(3), 62-297.440, F.A.C.]
9. Fuel Consumption: The owner or operator shall monitor the hours of operation of the emission unit with an hour meter. [Rule 62-4.070(3), F.A.C.]

REPORTING AND RECORDKEEPING REQUIREMENTS

10. Hour Meter Calibration: Calibration of the hour meter shall be conducted in accordance with manufacturer's schedule and recommendation. [Rule 62-4.070(3), F.A.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. [Rule 62-4.070(3), F.A.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 3 of this permit. [Rule 62-4.070(3), F.A.C.]

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions apply to the following emissions units after construction:

Emissions Unit No.	Emissions Unit Description
018	810 brake hp natural gas fired Caterpillar Model G3512 LE-130 engine for pump 3. Maximum heat input rate is 6.00 mmBtu/hr. Pump has a designed 20 million gallons per day (MGD) water pumping capacity.
019	810 brake hp natural gas fired Caterpillar Model G3512 LE-130 engine for pump 4. Maximum heat input rate is 6.00 mmBtu/hr. Pump has a designed 20 MGD water pumping capacity.
020	2090 brake hp natural gas fired Caterpillar Model G3608 LE engine for pump 5. Maximum heat input rate is 13.70 mmBtu/hr. Pump has a designed 40 MGD water pumping capacity.

Note: These emissions units are not subject to any unit-specific applicable requirements. They are subject to the requirements of Section II, Facility-Wide Specific Conditions, of this permit. This permit was written to authorize removal of emissions units 003 through 005 and installation of these emissions units. The Waukesha units permitted in 1999 (0250314-003-AC) were not installed and are being replaced by the Caterpillar units. However, uncontrolled potential emissions are not significantly greater than past actual emissions for purposes of PSD. The Department is requiring initial tests for NO_x emissions on both Unit No. 18 or 19 and Unit No. 20 for demonstration purposes only.

OPERATIONAL REQUIREMENTS

- 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)]
- Fuel:** The emission unit shall be fired with natural gas. Fuel consumption shall not exceed 88 million standard cubic feet (MMscf) in any consecutive 12-month period for Units 018 and 019 combined. Annual fuel consumption shall not exceed 111 MMscf in any consecutive 12-month period for Unit 020. The owner or operator shall keep monthly records of total fuel consumption for these emissions units. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]
- Operating Procedures:** The emission 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 the emission unit is trained in the operation and maintenance in accordance with the guidelines and procedures as established by the equipment manufacturers. [Rule 62-4.070(3), F.A.C.]
- Nitrogen Oxide (NO_x) Initial Emission Tests:** Initial NO_x emissions tests shall be conducted on either Unit No. 18 or 19 and Unit No. 20. NO_x emissions from Unit No. 18 or 19 shall not exceed 4.4 lb/hr. NO_x emissions from Unit No. 20 shall not exceed 3.2 lb/hr. NO_x emissions shall be demonstrated 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. Test report shall be submitted to the Bureau of Air Regulation in Tallahassee. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- (a) Have access to and copy and records that must be kept under the conditions of the permit;
 - (b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - (c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- (a) A description of and cause of non-compliance; and
 - (b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

APPENDIX GC
GENERAL PERMIT CONDITIONS [RULE 62-4.160, F.A.C.]

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- (a) Determination of Best Available Control Technology ();
 - (b) Determination of Prevention of Significant Deterioration (); and
 - (c) Compliance with New Source Performance Standards ().
- G.14 The permittee shall comply with the following:
- (a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - (b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - (c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Jorge S. Rodriguez, P.E.
 Assistant Director - Water
 Miami-Dade Water & Sewer Department
 3071 SW 38th Avenue
 Miami, FL 33146-1520

COMPLETE THIS SECTION ON DELIVERY

A. Received by (Please Print Clearly) B. Date of Delivery

11/4/02

C. Signature

X *Jorge S. Rodriguez* Agent AddresseeD. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

- Certified Mail Express Mail
 Registered Return Receipt for Merchandise
 Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

2. 7001 0320 0001 3692 7720

PS Form 3811, July 1999

Domestic Return Receipt

102595-00-M-0952

U.S. Postal Service**CERTIFIED MAIL RECEIPT**

(Domestic Mail Only; No Insurance Coverage Provided)

7001 0320 0001 3692 7720

0320 0001 3692 7720

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

Postmark
Here

Send To: **Jorge S. Rodriguez**
 Street, Apt. No.,
 or PO Box No. **3071 SW 38th Ave.**
 City, State, ZIP+4
Miami, FL 33146-1520

PS Form 3800, January 2001

See Reverse for Instructions