FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST DISTRICT OFFICE
400 NORTH CONGRESS AVENUE 3RD FLOOR
WEST PALM BEACH, FLORIDA 33401-2913

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

FEDERALLY ENFORCEABLE STATE AIR OPERATION PERMIT

Sent by Electronic Mail – Received Receipt Requested
bshields@pbcwater.com

ISSUED TO:

Palm Beach County Water Utilities Department
8100 Forest Hill Boulevard
West Palm Beach, FL 33413

Authorized Representative
Mr. Brian Shields, P.E., Deputy Director

ARMS No.: 0990347
Permit No: 0990347-008-AF
Issued:
Expires:
A renewal application must be submitted by:

LOCATED AT: 12751 Hagen Ranch Road, Boynton Beach, FL 33437

PROJECT DESCRIPTION: FESOP Renewal for the Palm Beach County Southern Region Water Reclamation Facility

SIC: Wastewater Treatment Plant (SIC # 4952)

UTM/ Lat-Long: Zone 17; 581.85 Km. E; 2929.65 Km. N ″ Lat. 26° 29' 11" N Long 80° 10' 14" W

STATEMENT OF BASIS:

The Department of Environmental Protection Southeast District Office issues this permit under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Rules 62-4, and 62-204 through 62-297, and in conformance with all existing regulations of the Florida Department of Environmental Protection. The above named owner or operator is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents attached hereto or on file with the Department, in accordance with the terms and conditions of this permit.

Sincerely,

_____ _____
Jill S. Creech, P.E. Date
Southeast District Director

JSC/JL/st/lh

SECTION I -- SUMMARY INFORMATION

PERMIT HISTORY

- February 25, 2013 Application for air operation permit renewal received

PERMIT CONTENT

- Section I: Summary Information
- Section II: Facility-Wide Specific Conditions
- Section III: Emissions Unit Specific Conditions
- Section IV: Appendices
    - *Appendix A*: Abbreviations, Acronyms, Citations and Identification Numbers
    - *Appendix B*: General Permit Conditions

REGULATORY CLASSIFICATIONS

Title III:	The facility is not a major source of hazardous air pollutants (HAP)
Title IV:	The facility does not operate any units subject to the acid rain provisions of the Clean Air Act.
Title V:	The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.
PSD:	The facility is not a PSD major source in accordance with Rule 62-212.400 F.A.C.
RACT:	The facility is not subject to any RACT requirements.
NSPS:	The facility is not subject to requirements of 40 CFR Part 60.
NESHAP:	The facility is subject to requirements of 40 CFR Part 63.

EMISSIONS UNIT SUMMARY

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Liquid Process Units and Solid Handling Process
002	Four 1360 KW Emergency Generators (Three Kohler and one Caterpillar engines)
003	Four Anaerobic Digester Boilers
004	Flare

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

Conditions in this part generally apply to all emission units and activities covered under this permit.

Administrative Requirements

1.1 Regulating Agencies: All applications, tests, reports, notifications, or other submittals required by this permit shall be submitted to the Florida Department of Environmental Protection, Southeast District Office, street address 400 North Congress Avenue, 3rd Floor, West Palm Beach, Florida, 33401-2913, (phone 561-681-6600 Fax 561/681-6755).

1.2 Citation Format: In this permit, references to F.A.C. Rule 62-xxx refer to rules promulgated under Title 62 of the Florida Administrative Code; references (if any) to 40 CFR 60.xx (or 61.xx or 63.xx) refer to regulations codified under Part 60 (or 61 or 63) of Title 40 of the Code of Federal Regulations.

1.3 Specific and General Conditions: The owner or operator shall be subject to the specific conditions of this permit and the owner or operator shall be aware of, and operate under, the attached General Conditions, attached as Appendix A of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]

1.4 Applicable Regulations: This facility is subject to regulation of Florida Administrative Code (F.A.C.) Rules 62-4 and 62-204 through 62-297, 40 CFR 60 Subpart I, and 40 CFR 63, Subpart ZZZZ. Issuance of this permit does not relieve the facility owner or operator from compliance with any other applicable federal, state or local permitting requirements or other regulations.

1.5 Other Permits: This air pollution permit does not preclude the owner or operator from obtaining any other types of required permits, licenses or certifications from this Department or other departments or agencies.

1.6 Renewal of This Permit Required: An application for renewal of this operation permit must be submitted to the Department of Environmental Protection, Southeast District Office, Air Program at least 60 days prior to the expiration date of this permit. To apply for an operation permit, the applicant shall submit the appropriate application form in quadruplicate, the appropriate application fee, all required compliance test results, and such additional information as the Department may by law require. [Rules 62-4.030, 62-4.050, and 62-4.220, F.A.C.]

General Pollutant Emission Limiting Standards

2.1 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.]

{Permitting note: Objectionable odor is defined 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}.

2.2 General Visible Emissions Standard: Unless otherwise specified by permit or rule, 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 20 percent opacity. [Rule 62-296.320(4)(b), F.A.C.]

2.3 Volatile Organic Compounds/Organic Solvents Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]

Such controls include the following:

- Tightly cover or close all VOC containers when they are not in use.
- Tightly cover all open tanks that contain VOCs when they are not in use.
- Maintain all pipes, valves, fittings, etc., which handle VOCs in good operating condition.

- Confine rags used with VOCs to tightly closed, fireproof containers when not in use.
- Immediately confine and clean up VOC spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

2.4 Unconfined Emissions of Particulate Matter: No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. [Rule 62-296.320(4)(c), F.A.C.]

Reasonable precautions include the following:

a. Paving and maintenance of roads, parking areas and yards.

b. Application of water or other dust suppressants to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.

c. Application of asphalt, water, or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.

d. 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.

e. Landscaping or planting of vegetation.

f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.

g. Confining abrasive blasting where possible.

h. Enclosure or covering of conveyor systems.

Operation Requirements

3.1 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.]

3.2 Excess Emissions Requirements [Rule 62-210.700, F.A.C.]

a. Excess emissions resulting from start-up, shutdown or malfunction of these 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 Health Department for longer duration. [Rule 62-210.700(1), F.A.C.]

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, are prohibited. [Rule 62-210.700(4), F.A.C.]

c. In case of excess emissions resulting from malfunctions, the owner or operator shall notify the Air Pollution Control Section of the Palm Beach County Health Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the problem; and the corrective actions being taken to prevent recurrence. [Rule 62-210.700(6), F.A.C.]

Compliance Testing Requirements

4.0 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 emissions 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 emissions unit above 110% of the test load is allowed for no more than 15 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.]

4.1 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 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 emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

Reporting and Record Keeping Requirements

5.1 Report Excess Emissions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department in accordance with Rule 62-4.130, F.A.C. (condition 5.2 below). 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.]

5.2 Report Plant Operation Problems: If the owner or operator is 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 owner or operator shall immediately notify the Department. 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 owner or operator from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

5.3 Retain Records: All records required by this permit shall be kept by the owner or operator and made available for Department inspection for a minimum of three (3) years from the date of such records. [Rule 62-4.070(3), F.A.C.]

5.4 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 emissions 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 297.310(8)(c), F.A.C.:

a. 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.

b. 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.

c. The type of air pollution control devices installed on the emissions 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.

d. All measured and calculated data required to be determined by each applicable test procedure for each run.

e. The detailed calculations for one run that relate the collected data to the calculated emission rate.

f. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.

[Rules 62-297.310(8)(a) &(b), F.A.C.]

5.5 Annual Report Required: On or before April 1st of each calendar year, a completed DEP Form 62-210.900(5), Annual Operating Report (AOR) Form for Air Pollutant Emitting Facility shall be submitted to the Department of Environmental Protection Southeast District Office, if the report is submitted using the Department's electronic annual operating report software, there is no requirement to submit a hard copy to the district office. [Rule 62-210.370(3)(c), F.A.C.]

Section III-A – Emissions Unit 001

This part of this permit addresses the following emission unit:

EU No.	Emissions Unit Description
001	Liquid Process Units and Solids Handling Process

The liquid process includes headwork, aeration tanks, secondary clarifiers, and chlorine contact basins. The solid process includes grit handling, odor control scrubbers, sludge concentration tanks, and primary and secondary anaerobic digesters.

This emissions unit has a maximum production rate of 35 million gallons per day (three month average daily flow). The odor control device consists of a Heil 730 counter-current scrubber vertical packed tower. The scrubbers are made of fiberglass reinforced polyester.

There are no specific emissions limiting standards for this Emissions Unit.

This emissions unit may operate continuously.

Section III-B – Emissions Unit 002

The specific conditions in this section apply to the following emissions units:

E.U. ID No.	Brief Description
002	Four Engine Emergency Diesel Engines Used to Support Plant Operation • Three Kohler Generators, 1696 HP each Model 1500ROZD • One Caterpillar Generator 1360 HP Model 3516

Emissions Unit 002 consists of four diesel engine-driven emergency generators unit used to provide emergency backup power for the plant in the event of loss of power from FPL. These engines fire low sulfur diesel fuel less than 0.05 percent.

The following table provides important details for these emissions units:

Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement Liters/cylinder	Model No.
1696	5/24/97	1997	Diesel	Emergency	2.44	Kohler 1500ROZD
1467	9/17/1999	1999	Diesel	Emergency	4.32	Cat 3516 Prime Power

{Permitting Note: These emissions units, compression ignition (CI) engines, are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. This RICE is for emergency engines. This permit section addresses "existing" stationary CI RICE more than 500 HP that are located at an Area source of HAP and that has not been modified or reconstructed after 6/12/2006.

The permittee shall comply with the following emissions and operating limitations no later than May 3, 2013.

Essential Potential to Emit (PTE) Parameters

B.1. Engine Startup. During periods of startup the owner or operator must minimize the engine's time spent at idle and minimize the engine's startup time to a period needed for the appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6625(h)]

B.2. Fuel Consumption Limits: Consumption of diesel fuel for the generators is limited to not more than 176,000 gallons in any consecutive 12 month period. [Requested by Permittee]

Emission Limitations and Operating Requirements

B.3. Work or Management Practice Standards.

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a) & Table 2d4.a.]

b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first. [40 CFR 63.6603(a) & Table 2d4.b.]

c. *Hoses and Belts*. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6603(a) & Table 2d4.of Subpart ZZZZ.]

d. *Operation and Maintenance*. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution, control practice for minimizing emissions. [40 CFR 63.6625(e), 63.6640(a) & Table 6.9.a.]

e. *Oil Analysis*. The owner or operator has the option of using oil analysis to extend the change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in B.3.a. The analysis program must at a minimum analyze the following three parameters: Total

Base Number, viscosity, and percent of water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent of water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

Compliance

B.4 Continuous Compliance. At all times, this unit:

a. Must be in compliance with the operating limitations in this section.
b. Must be operated and maintained in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[40 CFR 63.6605]

Recordkeeping Requirements

B.5. Maintenance Records. The owner or operator must keep records of the maintenance conducted on this unit in order to demonstrate that it is operated and maintained according to their own maintenance plan. [40 CFR 63.6655(e)]

B.6. Record Retention.

a. The owner or operator must keep records in a suitable and readily available form for expeditious reviews.
b. The owner or operator must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

B.7. The permittee shall keep records of the amount of fuel consumed by the generators on a monthly basis. The permittee shall follow the frequency of maintaining the fuel consumption records as required in the specific condition B.2. of this permit. [Rule 62-4.070(3), F.A.C.]

General Provisions

B.8. 40 CFR 63 Subpart A, General Provisions: These engines shall comply with all applicable requirements of 40 CFR 63 Subpart A, General Provisions, which have been adopted by reference in Rule 62-204.800(11)(d)1., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. This engine shall comply with the applicable portions of Appendix 40 NESHAP Subpart A included with this permit, as specified below.

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction

General Provisions Citation	Subject of Citation
§63.6(a)	Applicability
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting
§63.10(b)(1)	Record retention
§63.10(b)(2)(vi)–(xi)	Records
§63.10(b)(2)(xii)	Record when under waiver
§63.10(b)(2)(xiv)	Records of supporting documentation
§63.10(b)(3)	Records of applicability determination
§63.10(d)(1)	General reporting requirements
§63.10(d)(4)	Progress Reports
§63.10(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations
§63.13	Addresses
§63.14	Incorporation by reference
§63.15	Availability of information

[40 CFR 63.6665]

Section III - C– Emissions Units 003-004

This part of this permit addresses the following emissions units:

Emissions Unit No.	Emissions Unit Description
003	Four Anaerobic Digester Boilers
004	Flare

Emissions Limiting Standards and Operation Restrictions

C.1 Visible Emissions: Opacity standards for the boilers are as follows:

Emissions Unit	Standard	Exception	Rule Reference
Boilers (diesel fuel oil)	Twenty Percent Opacity	One six-minute period per hour during which opacity shall not exceed 27 percent.	62-296.406(1)

C.2 Hours of Operation: The boilers may operate continuously. [Rule 62-4.070(3), F.A.C.]

C.3 Allowable Fuels: Fuel consumption limits and sulfur content limitations are specified below.

Emissions Unit	Allowable Fuel	Consumption Limits	Sulfur Limit by Weight	Rule Reference
Boilers*	Digester Gas	No limit	No limit	62-210.200(203), PTE
	Diesel	No limit	0.05 Percent	62-296.406; [BACT]
Flare**	Digester Gas	No limit	No limit	62-210.200(203), PTE

{Permitting Note: The design capacity for each boiler is 1.675 MM Btu/hr., and the Capacity of the flare is 22,250 scfm/hr.}

Compliance Monitoring and Testing Requirements

C.4 Compliance Testing: The Permittee shall conduct compliance testing for the boilers in accordance with the following methods and frequency.

Emissions Unit	Parameter	Test Method	Frequency	Duration of the Test	Rule Reference
Boilers	VE	EPA Method 9	Within one year prior to Renew of this permit	One Hour	62-297.310(4) &(7)

C.5 Hours of Operation: The owner or operator shall monitor the hours of operation of the referenced emissions units with an hour meter. [Rule 62-4.070(3), F.A.C.]

C.6 Frequency of Testing: Compliance test is not required if the boilers burned diesel fuel for a total of no more than 400 hours during the year prior to renewal of this permit. [Rule 62-297.310(7)(a)2., F.A.C.]

C.7 Fuel Consumption: The owner or operator shall monitor fuel consumption by the referenced emissions units by metering the fuel. [Rule 62-4.070(3), F.A.C.]

Reporting and Record Keeping Requirements

C.8 AOR Supplemental Information: Annual operation reports required in Part II of this permit shall include the following supplemental information that was recorded in the previous calendar year:

a. The highest percent sulfur content (by weight) of diesel fuel received.

b. The amount of diesel fuel consumed by the generators and the boilers.

C.9 Hours of Operation: The owner or operator shall maintain records and report hours of operation of the referenced emissions units on a monthly basis. [Rule 62-4.070(3), F.A.C.]

C.10 Allowable Fuels: The owner or operator shall maintain records and report the types of fuel burned. The owner or operator shall maintain records to demonstrate that:

a. The diesel fuel burned by the boilers has 0.05 percent or less (by weight) of sulfur and,

b. The diesel fuel burned by the generators has 0.05 percent or less (by weight) of sulfur, and, the sulfur content was determined by ASTM methods ASTM D4057-88 and ASTM D129-91, ASTM D2622-94 or ASTM D4294-90, or latest edition, adopted and incorporated by reference in Rule 62-297.440(1). Certifications from the fuel supplier in accordance with the above requirement shall be satisfactory records. These records shall be used to demonstrate compliance with sulfur content in Specific Condition number B.3. [Rule 62-4.070(3), F.A.C.]

C.11 Boilers & Flare:

The owner or operator shall maintain records and report the fuel oil and digester gas consumption of boilers and flare on a monthly basis.

C.12 The hours of operation records shall be used to demonstrate whether or not testing for visible emissions is required per Specific Condition **C.1**. [Rule 62-4.070(3), F.A.C.]