FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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PERMITTEE

South Florida Water Management District
3301 Gun Club Road, Dept. 5500
West Palm Beach, Florida 33406
Authorized Representative:
Mr. Michael Gallagher,
Bureau Chief, Field Operations South

Air Permit No. 0110351-006-AC
Permit Expires:
Minor Air Construction Permit

Pump Stations S-8 & G-404
Construction Permit for G-404 Emergency Generator

PROJECT

This is the final air construction permit, which authorizes the installation of a 5 kW Emergency Generator. The proposed work will be conducted at the existing G-404 Pump Station co-located with the S-8 Pump Station, which is a pump station categorized under Standard Industrial Classification No. 9511. This existing facility is located at the junction of canals L-5, L-4, and L-23, 15 miles west of Hwy. 27 along Palm Beach/Broward County line. The UTM coordinates are: Zone 17, 522.3 km East and 2912.2 km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); and Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, 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 30 days after this order is filed with the clerk of the Department.

Executed in West Palm Beach, Florida

_____ _____

Jennifer K. Smith Date
Southeast District Assistant Director

JKS/dmp/lch/sdt

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Air Permit package was sent by electronic mail, or a link to these documents made available electronically on a publicly accessible server, with received receipt requested before the close of business on the date indicated below to the following persons.

Mr. Michael Gallagher, SFWMD: mgallagh@sfwmd.gov
Mr. Jeffrey Smith, SFWMD: jesmith@sfwmd.gov
Mr. Barry Westmark, ECT: bwestmark@ectinc.com
Mr.Laxmana Tallam: Laxmana.Tallam@flhealth.gov
Ms. Barbara Friday, DEP BAR: barbara.friday@dep.state.fl.us (for posting with U.S. EPA, Region 4)
Ms. Kathleen Lusky, EPA Region 4: lusky.kathleen@epa.gov
Ms. Heather Ceron, US EPA Region 4: ceron.heather@epa.gov

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.
(Electronic Signature)

FACILITY DESCRIPTION

The existing facility consists of the following emissions units.

Facility ID No. 0110351	
ID No.	**Emission Unit Description**
001	Four (4) internal combustion diesel-fired pump engines rated at 800 hp each @ S-8 fitted with Diesel Oxidation Catalyst pollution controls.
002	Three (3) internal combustion diesel fired pumps engine rated at 440 hp each. @ G-404 fitted with Diesel Oxidation Catalyst pollution controls.
003	Two (2) internal combustion diesel fired 380 hp engines each driving a 250 kw generator at S-8.
004	One (1) 45 hp diesel engine powering one standby air compressor at S-8.

PROPOSED PROJECT

The proposed project is the installation of a diesel powered 5 kW emergency generator at the G-404 Pump Station.

This project will add the following emissions unit.

Facility ID No. 0110351	
ID No.	**Emission Unit Description**
005	One (1) 11.1 hp (max) diesel engine driving a 5 kW emergency generator at G-404.

FACILITY REGULATORY CLASSIFICATION

- The facility is a minor source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a synthetic minor stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Southeast District Air Program in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Southeast District Air Program mailing address is 3301 Gun Club Road; MSC 7210-1, West Palm Beach, Florida 33406; sed.air@dep.state.fl.us.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southeast District Air Program at: 3301 Gun Club Road; MSC 7210-1, West Palm Beach, Florida 33406; sed.air@dep.state.fl.us. .

3. Appendices: The following Appendices are attached as a part of this permit and the permittee must comply with the requirements of the appendices:

Appendix A	Identification of General Provisions - NSPS 40 CFR 60, Subpart A;
Appendix A1	General Provisions - NESHAP 40 CFR 63, Subpart A;
Appendix CC	Common Conditions;
Appendix CF	Citation Formats and Glossary of Common Terms;
Appendix CTR	Common Testing Requirements;
Appendix GC	General Conditions;
Appendix IIII	NSPS, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines; and,
Appendix ZZZZ	NESHAP, Subpart ZZZZ -- National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units 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 Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: 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. Modifications: The permittee shall notify the Compliance Authority upon commencement of construction. No new emissions unit shall be constructed and no existing emissions unit shall be modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]

7. Construction and Expiration. The expiration date shown on the first page of this permit provides time to complete the physical construction activities authorized by this permit, complete any necessary compliance testing, and obtain an operation permit. Notwithstanding this expiration date, all specific emissions limitations and operating requirements established by this permit shall remain in effect until the facility or emissions unit is permanently shut down. For good cause, the permittee may request that that a permit be extended. Pursuant to Rule 62-4.080(3), F.A.C., such a request shall be submitted to the Permitting Authority in writing before the permit expires. [Rules 62-4.070(4), 62-4.080 & 62-210.300(1), F.A.C.]

8. Source Obligation:

   (a) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours

of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

(b) At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by exceeding its projected actual emissions, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

[Rule 62-212.400(12), F.A.C.]

A. EU005 G-404 5 kw Emergency Generator

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
005	One (1) diesel engine driving a 5 kW emergency generator at G-404 Cummins Onan Model QD 5000 or equal.

The following table provides important details for this emissions unit:

E.U. ID No.	Engine Brake HP	Date of Construction	Model Year	Primary Fuel	Type of Engine	Displacement liters/cylinder (l/c)	Model No.
005	11.1	2014-2015	2014-2015	Diesel	4 cycle	0.240	QD 5000

{Permitting Note: This emissions unit, compression ignition (CI) engine, is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE adopted in Rule 62.204.800(11)(b), F.A.C. and 40 CFR 60, Subpart IIII, NSPS. This RICE is not used for fire pumps. This permit section addresses "new" stationary CI RICE less than 37 kW (50 hp) with a displacement less than 10 liters per cylinder, that is located at an area source of HAP and that have been modified, reconstructed or commenced construction on or after 6/12/2006 and have a post-2007 (2014) model year. As a new RICE located at an area source, in order to meet the requirements of 40 CFR 63, Subpart ZZZZ, the emissions unit shall meet the requirements of 40 CFR Part 60, Subpart IIII.}

EQUIPMENT

1. G-404 Emergency Generator: The permittee is authorized to install One (1) diesel engine driving a 5 kW emergency generator at G-404. The generator will be a Cummins Onan Model QD 5000 or equal which has a maximum rated brake hp of 11.1 and will be certified by the manufacturer to meet U.S. EPA Tier IV emissions requirements. [Application No. 0110351-006-AC]

2. Certified Engine: To meet the emission standards of 40 CFR 60, Subpart IIII, the emission unit must be certified to the emission standards in 40 CFR 60.4205(b) as applicable, for the same model year and engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications. [40 CFR 60.4211(c)]

3. The Engine will be installed with a non-resettable hour meter. [Rule 62-4.070(4), F.A.C.]

PERFORMANCE RESTRICTIONS

4. Permitted Capacity: The generator is permitted to have a 5 kw design capacity powered by a 11.1 hp diesel engine. [Rule 62-210.200(PTE), F.A.C.]

5. Authorized Fuel: The Emission Unit is authorized to burn only Ultra Low Sulfur Distillate (Diesel) Fuel.

   a. Sulfur Content. The sulfur content shall not exceed 0.0015% by weight for Non-Road fuel.

   b. Cetane and Aromatic. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

   [40 CFR 60.4207(b), 80.510(b) and Application No. 0110351-006-AC]

6. Hours of Operation: The hours of emergency operation are not limited (8760 hours per year). However, this emission unit is included with EU002 in the 250,000 gallons/year fuel cap for Pump Station G-404. The

emergency generator may operate up to 100 hours per year for maintenance and testing purposes, which includes up to 50 hours per year in non-emergency situations. [Application No. 0110351-006-AC and Rules 62-4.070(3), 62-210.200(PTE), F.A.C., and 40 CFR 60.4211(f)]

7. Other Situations: Each RICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 60.4219]

EMISSIONS STANDARDS

8. Emissions Standards & Limits: The stationary diesel engine shall comply with the following emission standards & limits and demonstrate compliance in accordance with the procedures given in NSPS 40 CFR 60, Subpart IIII. Manufacturer certification can be provided to the Department in lieu of actual stack testing.

Emergency Generator/Engine (< 10 liters/cylinder)	**CO** (g/kW-hr)[1]	**CO** (g/hp-hr)[1]	**PM** (g/kW-hr)	**PM** (g/hp-hr)	**SO_2**[3] (% S)	**NMHC**[4] **+ NOx** (g/kW-hr)	**NMHC**[4] **+ NOx** (g/hp-hr)
Subpart IIII Table 2 (2008 and later)	6.6	4.9	0.40	0.30	0.0015	7.5	5.6

[1] g/kW-hr means grams per kilowatt-hour.
[2] Equivalent lb/hr.
[3] SO_2 emission standard will be met by using ULSD fuel oil in the emergency generator with fuel sulfur (S) content of 0.0015% by weight.
[4] NMHC means non-methane hydrocarbons.

[40 CFR 60.4205(b) & Table 2 to Subpart IIII of Part 60]

9. Operation and Maintenance. The stationary CI internal combustion engine and control device (if applicable) must be maintained and operated according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. The owner or operator must meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply. [40 CFR 60.4211(a)]

10. If the stationary CI internal combustion engine and control device (if applicable) is not installed, configured, operated, and maintained according to the manufacturer's emission-related written instructions, or if changes are made to the emission-related settings in a way that is not permitted by the manufacturer, compliance shall be demonstrated by keeping a maintenance plan and records of conducted maintenance and the engine must, to the extent practicable, be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. In addition, if the engine and control device is not installed and configured according to the manufacturer's emission-related written instructions, or changes are made to the emission-related settings in a way that is not permitted by the manufacturer, an initial performance test to demonstrate compliance with the applicable emission standards shall be conducted within 1 year of such action. [40 CFR 60.4211(g)]

TESTING REQUIREMENTS

11. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(7)(a)9, F.A.C.]

12. Test Methods: Required tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
5	Method for Determining Particulate Matter Emissions
6C	Method for Determining SO_2 Emissions (Instrumental)
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
19	Determination of Sulfur Dioxide Removal Efficiency and Particulate Matter, Sulfur Dioxide, and Nitrogen Oxides Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1-4.)
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

The above methods are described in Appendix A of 40 CFR 60 and are adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [Rules 62-204.800 and 62-297.100, F.A.C.; and Appendix A of 40 CFR 60]

MONITORING REQUIREMENTS

13. The permittee shall monitor and maintain records of:

    a. Emergency and non-emergency operating time.

    b. Fuel Usage.

    c. Maintenance.

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

RECORDS AND REPORTS

14. Notification, Recordkeeping and Reporting Requirements: The permittee shall adhere to the compliance testing and certification requirements listed in 40 CFR 60.4211 and maintain records demonstrating fuel usage. [40 CFR 60.4211.]

15. Test Reports: The permittee shall prepare and submit reports for all required tests, if any, in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(8), F.A.C.]

16. Operational Data: If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached. [40 CFR 60.4214(c)].