



Florida Department of Environmental Protection

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PERMITTEE

South Florida Water Management District
3301 Gun Club Road, Department 5822
West Palm Beach, Florida, 33406

Authorized Representative:
Ernie Marks, Executive Director

Air Permit No. 0990349-011-AC
Permit Expires: December 31, 2023
Minor Air Construction Permit
Pump Station S-5A
Reconstruction of Six Pump Engines

PROJECT

This is the final air construction permit, which authorizes the reconstruction of Pump Engines Nos. 1 to 6 (emission units (EU) 004 to 009) along with the installation of four 800 horsepower (Hp) temporary emergency engines at the referenced facility. The proposed work will be conducted at the existing Pump Station S-5A, which is an Air and Water Resource and Solid Waste Management facility categorized under Standard Industrial Classification No. 9511. The existing facility is in Palm Beach County at 20700 State Road 80 in Loxahatchee, Florida. The UTM coordinates of the existing facility are Zone 17, 562.86 kilometers (km) East, and 2951.577 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 Tallahassee, Florida

For:

Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Construction 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.

Ernie Marks, SFWMD: (emarks@sfwmd.gov)

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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.

SECTION 1. GENERAL INFORMATION

FACILITY DESCRIPTION

Pump Station S-5A consists of a reinforced concrete structure with a concrete superstructure. The main engines used to run the pumps are housed within this structure. In addition to the six main engines, the Pump Station includes two existing 535 Hp Cummins® emergency generators, and the SFWMD plans to install two new 762 Hp Caterpillar® emergency generators. The Florida Department of Health, Palm Beach County, issued an air construction permit on January 26, 2017 authorizing installation of these new emergency generators, which the SFWMD has ordered but not yet installed.

The existing facility consists of the following emissions units (EU).

EU ID No.	Brief Description
002	Four 25,000-gallon aboveground storage tanks (AST's).
003	Sixteen aboveground storage tanks less than 40 cubic meters in capacity
004	Pump Engine No. 1: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
005	Pump Engine No. 2: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
006	Pump Engine No. 3: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
007	Pump Engine No.4: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
008	Pump Engine No.5: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
009	Pump Engine No.6: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
010	Two 535 Hp Cummins Onan Emergency Generators, Model NTA-855-G3
011	Two Emergency Generators each with a 762 Hp Caterpillar Engines
012	Regulated Gasoline Dispensing facility/One gas pump dispenser

PROPOSED PROJECT

The SFWMD plans to reconstruct Pump Engines Nos. 1 to 6 (EU 004 to 009). These engines were manufactured in approximately 1954. The engines are identical 1,600 Hp, 10-cylinder opposed piston Fairbanks Morse Engine® (FME) Model 38D8-1/8 2-stroke compression ignition (CI) internal combustion engines (ICE) with a per-cylinder displacement of 17 liters. In addition, the SFWMD is seeking authorization to temporarily install four new 800 Hp emergency pump engines (EU 013). These emergency pump engines will only be used at this site for the duration of the pump engine reconstruction project (~6 years). Finally, the SFWMD seeks reclassification of the two existing 535 Hp Cummins® Onan emergency generators (EU 010) as existing institutional emergency stationary reciprocating internal combustion engines (RICE) located at an area source of hazardous air pollutant (HAP) emissions. If so classified, the Cummins Onan® emergency generators would be exempt from the requirements of Title 40 Code of Federal regulation (CFR) Part 63, Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

This project will add and/or modify the following emissions units.

EU No.	Emission Unit Description
<i>Units that will be modified</i>	
004	Pump Engine No. 1: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
005	Pump Engine No. 2: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
006	Pump Engine No. 3: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
007	Pump Engine No.4: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
008	Pump Engine No.5: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
009	Pump Engine No.6: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine
003	Two new 8,000-gallon fuel oil tanks, two new 2,000-gallon tanks each for raw lube oil and waste lube oil and other miscellaneous tanks will be added to EU 003 to support the 4 temporary emergency engines.

SECTION 1. GENERAL INFORMATION

<i>Units that will be added</i>	
013	Four Emergency 800 Hp Caterpillar® Pump Engines

FACILITY REGULATORY CLASSIFICATION

- The facility is not a major source of hazardous air pollutants (HAP).
- The facility does not operate units subject to the acid rain provisions of the Clean Air Act.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is not a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility operates units that are subject to the New Source Performance Standards (NSPS) at 40 CFR 60, and the National Emissions Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR 63.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400. All documents related to applications for permits to operate an emissions unit shall be submitted to the Palm Beach County, Florida Department of Health at: 800 Clematis Street, Fourth Floor West Palm Beach, FL 33401, P.O. Box 29 West Palm Beach, Florida 33402-0029.
2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Palm Beach County, Florida Department of Health at: 800 Clematis Street, Fourth Floor West Palm Beach, FL 33401, P.O. Box 29 West Palm Beach, Florida 33402-0029.
3. Appendices: The following Appendices are attached as a part of this permit: Appendix A (Citation Formats and Glossary of Common Terms); Appendix B (General Conditions); Appendix C (Common Conditions); Appendix D (Common Testing Requirements); Appendix E (NSPS Subpart A – General Provisions); and Appendix F (NSPS Subpart III).
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 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(3) & (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.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

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

9. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, **but no later than 180 days after the first main pump engine is reconstructed and it is returned to service.** This air construction permit shall be attached to the Title V permit to act as a compliance plan for subsequent reconstructed main pump engines. The permittee must notify the Permitting Authority and Compliance Authority each time a main pump engine is returned to service after being overhauled. After the last main pump engine is reconstructed and returned to the site, the applicant must apply for a Title V permit at least 90 days prior to expiration of this permit, **but no later than 180 days after the last main pump engine is reconstructed and it is returned to service.** 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 appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050 and Chapter 62-213, F.A.C.]
10. Annual Heat Input Limitation: The annual heat input to all engines at the Pump Station S-5A shall not exceed 161,401 million British thermal units (MMBtu) on a 12-month rolled monthly basis. This heat input limitation replaces the previous diesel fuel oil limitation of 1,064,900 gallons in any consecutive 12 months, rolling total.
{Permitting Note: Based on the above heat input limitation, facility-wide nitrogen oxide (NO_x) emissions are limited to 225 tons per year (TPY) which is less than the PSD threshold of 250 TPY.}
[Air Construction Permit 0990349-011-AC; Rules 62-210.200(PTE) and 62-4.070, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Sixteen Aboveground Storage (EU 003)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
003	Sixteen aboveground storage tanks less than 40 cubic meters in capacity. Day tank inventory consists of six for main engines, two for existing 535 Hp Cummins generators and two for the 762 Hp Caterpillar authorized generators. Four above ground tanks for raw lube oil and waste lube oil. Two new above ground tanks for four emergency pump engines.

{Permitting Note: In the current Title V Air Operation Permit No. 0990349-010-AV, this emission unit is list as an insignificant unit and is exempt pursuant to Rules 62-213.430(6), and 62-4.040(1)(b), F.A.C. and are considered to emit insignificant amounts of air pollution.}

EQUIPMENT

1. New Tanks: The permittee is authorized to add, operate and maintain two new 8,000-gallon fuel oil tanks to support the four temporary emergency pump engines (EU 013, [Link to EU 013](#)) and two new 2,000-gallon tanks each for raw lube oil and waste lube oil to support the six main engines (EU 004 to EU 009). [Application No. 0990349-011-AC; Rules 62-210.200(PTE) and 62-4.070, F.A.C.] [Application No. 0990349-011-AC; Rules 62-210.200(PTE) and 62-4.070, F.A.C.]
2. Existing Tanks: The permittee is authorized to operate and maintain one 500-gallon waste oil tank and one 25-gallon waste fuel tank to support the six main engines (EU 004 to EU 009). [Application No. 0990349-011-AC; Rules 62-210.200(PTE) and 62-4.070, F.A.C.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Main Pump Engines Nos. 1 to 6 (EU 004 to 009)

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
004	Pump Engine No. 1: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine, Diesel Fuel consumption is approximately 87.7 gallons per hour (~12.0 MMBtu/hr) burning ultra-low distillate fuel oil (0.0015% S by wt.). Engine Installed ~1954. Serial No. 968030
005	Pump Engine No. 2: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine, Diesel Fuel consumption is approximately 87.7 gallons per hour (~12.0 MMBtu/hr) burning ultra-low distillate fuel oil (0.0015% S by wt.). Engine Installed ~1954. Serial No. 967932
006	Pump Engine No. 3: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine, Diesel Fuel consumption is approximately 87.7 gallons per hour (~12.0 MMBtu/hr) burning ultra-low distillate fuel oil (0.0015% S by wt.). Engine Installed ~1954. Serial No. 967911
007	Pump Engine No.4: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine, Diesel Fuel consumption is approximately 87.7 gallons per hour (~12.0 MMBtu/hr) burning ultra-low distillate fuel oil (0.0015% S by wt.). Engine Installed ~1954. Serial No. 967940
008	Pump Engine No.5: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine, Diesel Fuel consumption is approximately 87.7 gallons per hour (~12.0 MMBtu/hr) burning ultra-low distillate fuel oil (0.0015% S by wt.). Engine Installed ~1954. Serial No. 968000
009	Pump Engine No.6: 1600 Hp, 10-cylinder 2 cycle opposed piston Fairbanks Morse Model 38D-1/8 engine, Diesel Fuel consumption is approximately 87.7 gallons per hour (~12.0 MMBtu/hr) burning ultra-low distillate fuel oil (0.0015% S by wt.). Engine Installed ~1954. Serial No. 967962

This section addresses reconstructed stationary non-emergency RICE that are used to pump water as need for flood control or other water management needs. After reconstruction, these CI RICE will be dual fuel-fired water pump engines, although they will remain capable of firing 100% diesel fuel oil at full or partial load. In the dual-fuel mode, the engines will typically be started on 100% ultra-low sulfur fuel oil (ULSFO) until the proper operating temperature is achieved, which is usually 5 to 10 minutes. As soon as the proper temperature is reached, the engines are then switched over to a dual fuel firing mode, which under typical operation conditions is a blend of approximately 95 percent (%) natural gas and 5% (ULSFO).

Each of these existing engines will be reconstructed but their useful life is not extended. The cost of this "reconstruction" is expected to exceed 50%, but not more than 75%, of the cost of a similar new engine. If the overhaul cost is more than 50% of the cost of a similar new engine, the project constitutes a "reconstruction" under 40 CFR 60 Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (see **Specific Condition 2** below for more information). The existing engines are currently subject to regulation pursuant to 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Following completion of the reconstruction, an engine will no longer be subject to any requirements under 40 CFR 63 Subpart ZZZZ and will become subject to regulation pursuant to 40 CFR 60, Subpart IIII.

PREVIOUS APPLICABLE REQUIREMENTS

1. Other Permits: Except as noted below, the conditions of this subsection come into force for each main pump engine once it is reconstructed and returned to Pump Station S-5A. All other pumps engines that have not been reconstructed will continue to operate under previously applicable permits. [Rule 62-4.070, F.A.C.]

EQUIPMENT

2. Engine Reconstruction: The permittee is authorized to remove one or more pump engines at a time from the site for the purpose of reconstruction at a remote repair facility. Because the cost of this reconstruction is expected to exceed 50% of the cost of a similar new engine, the reconstructed engines will become subject to the requirements of 40 CFR 60, Subpart IIII, as specified in this permit. If the cost of the "reconstruction" for an individual engine exceeds more than 75% of the cost of a similar new engine, as determined under the applicable provisions of 40 CFR 60 and associated guidance, the engine will be required to be assigned a new

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Main Pump Engines Nos. 1 to 6 (EU 004 to 009)

date of manufacture and appropriately labeled as a “new” engine. In this case, the engine will become subject to the applicable Tier 4 emissions standards and requirements for non-emergency engines specified in 40 CFR 1042.101, 1042.107, 1042.110, 1042.115, 1042.120, and 1042.145. Pursuant to 40 CFR 60.4201(g), the engine manufacturer is not required to certify the reconstructed engine, but elect to do so. If the reconstructed engine is not certified by the person or company performing the reconstruction to meet the applicable limits, then the owner or operator must conduct a performance test to demonstrate initial compliance with the emission standards according to the requirements specified in 40 CFR 60.4212 or 60.4213, as appropriate. The test must be conducted within 60 days after the engine commences operation after the modification or reconstruction. [40 CFR 60.4204(e), 60.4204(b), 60.4201(e)(2), 60.4219 (reconstruction), 40 CFR 1042; and Application No. 0990349-011-AC]

{Permitting Note: The expected duration of the entire engine reconstruction project is approximately six years.}

NSPS APPLICABILITY

3. NSPS Subpart IIII: After reconstruction of an engine, it will become subject to regulation pursuant to 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and no longer subject to 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Because Subpart ZZZZ no longer applies, the overhauled engines will not be subject to carbon monoxide emission limits nor will they be required to install, maintain, and operate oxidation catalysts or meet a 70 percent reduction requirement. The District may continue to use the existing oxidation catalysts on a voluntary basis. The reconstructed emergency pump engines must meet all applicable requirements contained in Appendix E (NSPS Subpart A – General Provisions) and Appendix F (NSPS Subpart IIII).

[Application No. 0990349-011-AC and §60.4200]

PERFORMANCE RESTRICTIONS

4. Methods of Operation. The authorized fuels that can be burned in these units are:
- Dual Fuel Firing Mode*. These units may co-fire a blend of approximately 95% natural gas and 5% ULSFO. In this mode, the units will fire ULSFO during startup until the proper operating temperature is achieved. As soon as the proper temperature is reached, the engines shall be switched over to a dual fuel firing mode
 - Fuel Oil*. Units may fire 100% ULSFO.
 - Sulfur Content*. The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
 - Cetane and Aromatic*. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

[Application No. 0990349-011-AC and 40 CFR 60.4207(b), 80.510(b)]

5. Hours of Operation. The hours of operation for these engines, including engines that have not been reconstructed, are not limited (8,760 hours per year). [62-210.200(PTE), F.A.C.]

*{Permitting Note: The hours of operation of individual engines are not limited. However, the total hours of operation for all engines combined is limited by the pump station heat input limitation given in **Specific Condition 10** of Section 2.}*

EMISSIONS STANDARDS

6. NO_x Emissions Standard: The owner or operator must not exceed the following NO_x emissions limit: 12.07 grams per kilowatt hour (g/kW-hr).

[Application No. 0990349-011-AC and 40 CFR 60.4205(a) and 40 CFR 94.8(a)(1)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Main Pump Engines Nos. 1 to 6 (EU 004 to 009)

TESTING AND COMPLIANCE REQUIREMENTS

7. Operation and Maintenance. Upon overhaul and completion of the initial performance test, each pump engine must be maintained and operated to meet the emissions limits in **Specific Condition 6** of this subsection over the entire life of the engine. [40 CFR 60.4206 & 4211(b)]
8. Initial Performance Test and Renewal Compliance Tests Requirements. The owner or operator must demonstrate compliance with the emissions standard given in **Specific Condition 6** of this subsection by conducting an initial performance test as specified in **Specific Condition 2** of this subsection for both dual fuel and 100% ULSFO firing. The initial performance test can be conducted at an Fairbanks Morse Engine facility in Houston or another appropriate facility. Subsequent permit renewal compliance tests of each pump engine for both dual fuel and 100% ULSFO firing shall be in done in accordance with **Specific Condition 8**, “Frequency of Emissions Tests” of Appendix D (Common Testing Requirements) of this permit. Renewal compliance tests at the pump station shall be conducted at conditions that allow the engine to reach the highest capacity as is practicable at the time of the scheduled test. The initial performance test only shall be done according to the requirements of “a” and “b” below:
 - a. *Testing Procedures*. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1042, Subpart F. [Link to 40 CFR 1042, Subpart F](#)
 - b. *NTE Standards*. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Condition A.3.**, determined from the following equation:
$$\text{NTE Requirement For Each Pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Alternatively, the owner or operator may follow the testing procedures specified in 40 CFR 60.4213, as appropriate. [Link to 40 CFR 60.4213](#)
 - c. *Subsequent Testing*. Subsequent testing shall be conducted pursuant to **Specific Condition 8(b)**, “Emissions Testing Prior to Obtaining an Air Operation Permit” of Appendix D using EPA Method 7E and shall be based on three one-hour runs.
[Rule 62-297.310(8)(a)4., F.A.C.: and, 40 CFR 60.4212(a) & (d)]
{*Permitting Note: the requirement of **Specific Condition 8** of this subsection to test each pump engine at the pump station at the “highest capacity as is practicable”, supersedes **Specific Condition 3**, “Operating Conditions during Emissions Testing” of Appendix D (Common Testing Requirements).*}
9. Test Requirements: The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required tests. Unless otherwise specified, tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(9), F.A.C.]

RECORDS AND REPORTS

10. Initial Testing Notification: The owner or operator must submit an initial notification as required in 40 CFR 60.7(a)(1). The notification must include:
 - a. Name and address of the owner or operator;
 - b. The address of the affected source;
 - c. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;
 - d. Emission control equipment; and
 - e. Fuel used.[40 CFR 60.4214(a)(1)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

A. Main Pump Engines Nos. 1 to 6 (EU 004 to 009)

11. Test Reports: The permittee shall prepare and submit reports for all required tests in accordance with the requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(10), F.A.C.]
12. Compliance Records. The owner or operator must keep the following records:
- All notifications submitted to comply with 40 CFR 60, Subpart IIII and all documentation supporting any notification.
 - Maintenance conducted on the engine.
 - Documentation that the engine meets the emission standards.
- [40 CFR 60.4214(a)(2)]
13. Other Reporting Requirements. See Appendix B, General Conditions and Appendix C, Common Conditions, for additional reporting requirements. [Rule 62-4.070, F.A.C.]

GENERAL PROVISIONS

14. 40 CFR 60, Subpart A - General Provisions. The owner or operator shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below. [Link to 40 CFR 60, Subpart A - General Provisions](#).

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.7	Notification and Recordkeeping, but only as specified in § 60.4214(a)
§ 60.8	Performance Tests
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Two 535 Hp Cummins Onan Emergency Generators (EU 010)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
010	Two 535 Hp Cummins Onan Emergency Generators, Model NTA-855-G3, fuel consumption of 24.4 gallons per hour (~3.34 MMBtu/hr), Manufacture Date June 1993. Serial Nos. 30341287 & 30341494

40 CFR 63.6585(f)(3) exempts institutional emergency RICE. EPA's "Guidance Regarding Definition of Residential, Commercial, and Institutional Emergency Stationary RICE in the NESHAP for Stationary RICE" ([guidance](#)) provides that pump stations like the SFWMD Pump Station S-5A that fall under North American Industrial Classification System (NAICS) code (924110) are considered "institutional" for purposes of Subpart ZZZZ. The two existing 535 Hp emergency generators (EU 010), therefore, meet the definition of emergency institutional and the criteria that exempts the generators from the 40 CFR 63 Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

NESHAP REQUIREMENTS

1. Institutional Emergency RICE: These emission units are classified as Institutional Emergency RICE so long as they only operate for 100 hours under emergency conditions and for no more than 100 hours per calendar year for maintenance and testing of which 50 hours of operation may be in non-emergency situations but are counted as part of the 100 hours total hours. As such these emission units are not subject to the requirements of 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. [Application No. 0990349-001-AC and §63.6585(f)(3), §63.6640(f)(2) and §63.6640(f)(4)]

PREVIOUS PERMITS

2. Obsolete Permit Conditions: Conditions of previous permits that regulated this emission unit under the requirements of NESHAP Subpart ZZZZ are obsolete. [Application No. 0990349-001-AC and §63.6585(f)(3), §63.6640(f)(2) and §63.6640(f)(4)]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Four Emergency 800 Hp Caterpillar® Pump Engines (EU 013)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
013	Four Emergency 800 Hp Caterpillar® Pump Engines. Diesel fuel consumption of approximately 39.4 gallons per hour (~5.40MMBtu/hr), Manufacture year: 2017. [Subject to 40 CFR 63 Subpart ZZZZ as new engines; and subject to 40 CFR 60 Subpart IIII, Tier II Standards, Table 1 - 40 CFR 89.112]

EQUIPMENT

1. **Emergency Pump Engines:** The permittee is authorized to install four 800 Hp caterpillar® emergency pump engines meeting Tier 2 emission requirements. These engines shall only be used to power pumps to aid in meeting the purpose of Pump Station S-5A during emergency situations. These engines may only be in operation during an emergency and when one of the main pump engines is not available for service.

[Application No. 0990349-011-AC; Rules 62-210.200(PTE) and 62-4.070, F.A.C.]

{Permitting Note: These emergency pump engines will only be operated during emergency situations, such as when flood conditions require pumping beyond the capacity of the operable engines to provide the pump stations full capacity of 4,800 cubic feet per second (cfs) of water flow. An emergency would be defined as an event during the main engine reconstruction project when the existing engine-pumping units remaining in service are functioning but not capable of maintaining water levels at the pump station intake canal below flood stage. In that event, these four engine-pumping units would be operated to replace the 800 cfs capacity lost due a main pump engine being unavailable.}

NSPS APPLICABILITY

2. **NSPS Subpart IIII:** Each emergency pump engine is subject to regulation pursuant to 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. The emergency pump engines must meet all applicable requirements contained in Appendix E (NSPS Subpart A – General Provisions) and Appendix F (NSPS Subpart IIII).

[Application No. 0990349-011-AC and §60.4200]

{Permitting Note: By meeting the requirements of NSPS Subpart IIII, the emergency pump engines meet the requirements 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.}

PERFORMANCE RESTRICTIONS

3. **Authorized Fuel.** This Stationary Internal Combustion Engines (ICE) must use diesel fuel that meets the following requirements for non-road diesel fuel:
 - c. **Sulfur Content.** The sulfur content shall not exceed = 15 ppm = 0.0015% by weight (ultra-low sulfur) for non-road fuel.
 - d. **Cetane and Aromatic.** The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
4. **Restricted Hours of Operation.** The owner or operator must comply with the following limitations for this emergency engine. If you do not operate the engine according to the requirements in paragraphs a. through c. of this condition, the engine will not be considered an emergency engine under 40 CFR 60, Subpart IIII and must meet all requirements for non-emergency engines.
 - a. **Emergency Situations.** There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR 60.4211(f)(1)]
 - b. **Maintenance and Testing.** This emergency stationary ICE is authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state or

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Four Emergency 800 Hp Caterpillar® Pump Engines (EU 013)

local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 60.4211(f)(2)(i)]

- c. *Non-emergency Situations.* This emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph b., above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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 60.4211(f)(3)]

EMISSIONS STANDARDS

5. NMHC + NOX Emissions. Emissions of non-methane hydrocarbons plus nitrogen oxide shall not exceed 6.4 grams per kilowatt-hour (g/KW-hr). [40 CFR 89.112 Tier 2 Table 1]
6. CO Emissions. Emissions of carbon monoxide shall not exceed 3.5 g/KW-hr. [40 CFR 89.112 Tier 2 Table 1]
7. PM emissions. Emissions of particulate matter shall not exceed 0.20 g/KW-hr. [40 CFR 89.112 Tier 2 Table 1]

TESTING REQUIREMENTS

8. Operation and Maintenance. The owner or operator must operate and maintain this engine according to the manufacturer's written instructions. In addition, owners and operators may only change those settings that are permitted by the manufacturer. These RICE must be maintained and operated to meet the emissions limits in **Specific Conditions 5 to 7** over the entire life of the engine. [40 CFR 60.4206 & 4211(a)]
9. Compliance Requirements Due to Loss of Certification: If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must demonstrate compliance as follows: you must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions; and in addition, if you do not install and configure the engine and control device according to the manufacturer's emission-related written instructions, or you change the emission-related settings in a way that is not permitted by the manufacturer, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of such action.
[40 CFR 60.4211(g)]
10. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition 9**, the following requirements shall be met:
 - a. *Testing Procedures.* The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F. [Link to 40 CFR 1039, Subpart F](#)
 - b. *NTE Standards.* Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Conditions 5 to 7**, determined from the following equation:
NTE Requirement For Each Pollutant = (1.25) x (STD) (Eq. 1)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS

B. Four Emergency 800 Hp Caterpillar® Pump Engines (EU 013)

[40 CFR 60.4212(a) & (c)]

11. Common Testing Requirements. If required per **Specific Condition 9** and unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix D, Common Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

MONITORING REQUIREMENTS

12. Hour Meter: The owner or operator must install a non-resettable hour meter on each engine if one is not already installed. [40 CFR 60.4209(a)]

RECORDS AND REPORTS

13. Testing Notification. At such time that the requirements of **Specific Condition 9** become applicable, the owner or operator shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1), F.A.C.]
14. Hours of Operation Records. The owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner or operator must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]
15. Maintenance Records. To demonstrate conformance with the manufacturer's written instructions for maintaining the certified engine and to document when compliance testing must be performed pursuant to **Specific Conditions 9** and **10**, the owner or operator must keep the following records:
- a. Engine manufacturer data indicating compliance with the standards.
 - b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engine.
 - c. A written maintenance log detailing the date and type of maintenance performed on the engine, as well as any deviations from the manufacturer's written instructions.
- [Rule 62-213.440(1), F.A.C.; and, 40 CFR 60.4211(g)]

TEMPORARY EMERGENCY PUMP ENGINE DEACTIVATION

16. Removal from Site: When the last of the six main pump engines is reconstructed and returned to the pump station site and its shakedown is complete, these emission units shall no longer be used at this site and shall be disconnected from a fuel oil supply. [Rules 62-210.200(PTE) and 62-4.070, F.A.C.]