FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
BOB MARTINEZ CENTER
2600 BLAIRSTONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

RICK SCOTT
GOVERNOR

CARLOS LOPEZ-CANTERA
LT. GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE

Florida Power & Light Company (FPL)
700 Universe Boulevard, JES/JB
Juno Beach, FL 33408

Authorized Representative:
Mr. Randall R. LaBauve, Vice President,
Environmental Services

Air Permit No. 0110037-011-AC
(PSD-FL-423)
Lauderdale Plant
Peaking Unit Replacement Project
Expires: December 31, 2018

FACILITY AND LOCATION

This is the final air construction permit, which authorizes the replacement of 24 existing gas turbines (GTs) peaking units' (GT1 to GT24) generation capacity at the FPL Lauderdale Plant. The 24 GTs are composed of two banks of 12 GTs each with each bank having a nominal capacity of 504 megawatts (MW). In addition, one bank of 12 existing GT peaking units (GT1 through GT12) at the FPL Port Everglades Plant which also generates 504 MW will be retired as a result of this project. The 36 GT units' generation capacity will be replaced with five nominal 200 MW combustion turbines (CTs) at the Lauderdale Plant to provide equivalent peaking resources while reducing emissions and providing better efficiency. The new CTs will be designated Units 6A through 6E at the Lauderdale Plant. The Lauderdale Plant is an electric utilities plant categorized under Standard Industrial Classification No. 4911. The Lauderdale Plant is located within the City of Dania Beach in Broward County, Florida. The facility can be accessed from Southwest 42nd Avenue and Griffin Road. The UTM coordinates are Zone 17, 580.2 kilometers (km) East, and 2883.3km North.

This final permit is organized into the following sections: Section 1 (General Information); Section 2 (Administrative Requirements); Section 3 (Emissions Unit Specific Conditions); Section 4 (Appendices). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix CF 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 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.

Executed in Tallahassee, Florida

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for: Jeffery F. Koerner, Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this final air permit package (including the Final Determination and Final Permit with Appendices) 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.

Randall R. LaBauve, FPL: Randall.R.LaBauve@FPL.com
John Hampp, FPL: john.hampp@fpl.com
Kennard F. Kosky, P.E. Golder Associates Inc.: Ken_Kosky@golder.com
Gary Maier, DEP SD: Gary.Maier@dep.state.fl.us
Ms. Alisa Coe, Earth Justice: acoe@earthjustice.org
Kathleen Forney, EPA Region 4: forney.kathleen@epa.gov
Heather Ceron, US EPA Region 4: ceron.heather@epa.gov
Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us
Ms. Barbara Friday, DEP OPC: barbara.friday@dep.state.fl.us

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.

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FACILITY DESCRIPTION

At the Lauderdale Plant, GT Units 1 through 12 began operation in August 1970 while GT Units 13 through 24 began operation in August 1972. The 12 GT at the Port Everglades Plant began operation in August 1971. The Port Everglades Plant is approximately 4.7 miles to the east of the Lauderdale Plant. Both the Lauderdale and Port Everglades Plants are in Broward County.

In addition to units GT1 through GT24, the Lauderdale Plant consists of two combined-cycle generating units (Unit 4 and Unit 5) and five fuel storage tanks. Each combined-cycle unit consists of two CTs which each exhaust through a separate heat recovery steam generator (HRSG). Each HRSG converts the heat from the CT exhaust into steam. The steam produced from the two HRSG units drives one steam turbine electrical generator (STEG). Each combined-cycle unit has a net summer continuous capability of 430 MW.

PROPOSED PROJECT

The generation capacity of the 36 existing peaking GTs will be replaced with five nominal 200 MW CTs to provide equivalent peaking resources to reduce emissions while providing far superior emission profiles and efficiency. The new CTs will be designated Units 6A through 6E at the Lauderdale Plant. No new CTs will be installed at the Port Everglades Plant. In addition, four nominal 3,100 kilowatt (kW) emergency generators firing ultra-low sulfur distillate (ULSD) fuel oil would be added to provide black start capability, i.e., these emergency generators will be used when electric power is not available to start the CTs. Alternatively, two existing GTs may be retained for the purposes of black start capability. The Lauderdale project will add a 300 horsepower (hp) fire pump engine using ULSD oil. Finally, the Lauderdale project will also use two 3-million gallon ULSD fuel oil storage tanks.

A summary of the regulated existing emission units and corresponding emissions unit identification number (E.U. ID No.) within the Department's Air Resource Management System (ARMS) at the Lauderdale Plant is given below.

EU ID No.	Brief Description
035	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4A)
036	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 4B)
037	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5A)
038	Combined-Cycle Combustion Turbine with Heat Recovery Steam Generator (CT 5B)
003	Bank of 12 Combustion Turbines (Nos. 1 to 12)*
015	Bank of 12 Combustion Turbines (Nos. 13 to 24)*
027	Fuel Oil Storage Tank #2 (80,000 barrel (bbl), Light Distillate Fuel Oil)
028	Fuel Oil Storage Tank #3 (150,000 bbl, Light Distillate Fuel Oil)
029	Fuel Oil Storage Tank #5 (75,000 bbl, Light Distillate Fuel Oil)
030	2 Fuel Oil Dump Tanks (2,500 gallon and 110 gallon)
039	Site Solvent Usage
042	Auxiliary Boiler used to provide steam to the turbine shaft seals during a cold start of the plant. Maximum designed heat input rate is 15.5 million British Thermal Units per hour (MMBtu/hr).
044	Emergency Diesel Fire Pump Engine

* Once all of the new CTs covered by this construction permit become commercially operational, these existing emission units will no longer be used to supply generation to FPL's system. Two of the existing GTs from EU003 may be retained for black start capability in lieu of four nominal 3,100 kW emergency generators.

The new emission units resulting from this project will be assigned the following E.U. ID No. within the Department's ARMS:

New EU ID No.	Description

New EU ID No.	Description
045	Simple cycle combustion turbine-electrical generator (Unit 6A)
046	Simple cycle combustion turbine-electrical generator (Unit 6B)
047	Simple cycle combustion turbine-electrical generator (Unit 6C)
048	Simple cycle combustion turbine-electrical generator (Unit 6D)
049	Simple cycle combustion turbine-electrical generator (Unit 6E)
050	Four nominal 3,100 kW emergency generators (FPL requested as an option to retain two existing GT units)
051	300 hp Emergency diesel fire pump engine
052	Two 3-million gallon ultra-low sulfur distillate (ULSD) fuel oil storage tanks

REGULATORY CLASSIFICATION

The following federal regulations apply to the Lauderdale Plant and this project.

- The existing facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality and Rule 62-210.200 (Definitions), F.A.C.
- This project (as discussed below) **does** trigger a PSD review and a requirement to conduct Best Available Control Technology (BACT) determinations pursuant to Department Rule 62-212.400, F.A.C.
- The existing facility is a major source of hazardous air pollutants (HAP).
- The existing facility has units regulated under Clean Air Act, Title IV, Acid Rain provisions, Phase II.
- The existing facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The proposed project includes units subject to Clean Air Interstate Rule (CAIR).
- The proposed project includes units subject to the New Source Performance Standards (NSPS) of 40 CFR 60.
- The proposed project includes units subject to the National Emission Standards of Hazardous Air Pollutants NESHAP of 40 CFR 63.

RELEVANT DOCUMENTS:

The permit application and additional information received to make it complete are not a part of this permit. However this information can be accessed at the following Webpage.

FPL Lauderdale Peaker Unit Replacement Project

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GENERAL REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Office of Permitting and Compliance (OPC) in the Division of Air Resource Management of the Department. The mailing address for the OPC 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 OPC Section.

2. Compliance Authority: All documents related to compliance activities such as reports, tests and notifications shall be submitted to the Southeast District Office. The mailing address and phone number of the Southeast District Office is: 400 North Congress Avenue, 3rd Floor, West Palm Beach, Florida 3340, (561) 681-6600.

3. Appendices: The following Appendices are attached as part of this permit:
   a. Appendix A. Citation Formats and Glossary of Common Terms;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions;
   d. Appendix D. Common Testing Requirements;
   e. Appendix Subpart A. NSPS Subpart A and NESHAP Subpart A - Identification of General Provisions;
   f. Appendix KKKK. NSPS Subpart KKKK Requirements for Gas Turbines and Duct Burners;
   g. Appendix XS. Semiannual NSPS Excess Emissions Report;
   h. Appendix ZZZZ. NESHAP Requirements for Reciprocating Internal Combustion Engines from 40 CFR 63, Subpart ZZZZ;
   i. Appendix IIII. NSPS Subpart IIII Requirements for Stationary Compression Ignition Internal Combustion Engines; and
   j. Appendix YYYY. NESHAP Subpart YYYY Requirements for Stationary Combustion Turbines.

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 permit expiration date includes sufficient time to complete construction, perform required testing, submit test reports, and submit an application for a Title V operation permit to the Department. For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Office of Permitting and Compliance at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]

8. Source Obligation:
   a. Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between

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construction of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit.

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 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.

c. 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.]

9. Application for Title IV Permit: At least 24 months before the date on which the new unit begins serving an electrical generator greater than 25 MW, the permittee shall submit an application for a Title IV Acid Rain Permit to the Department's Office of Permitting and Compliance Section in Tallahassee and a copy to the Region 4 office of the U.S. Environmental Protection Agency (EPA) in Atlanta, Georgia. [40 CFR 72]

10. Title V Permit: This permit authorizes specific modifications and/or new construction on the affected emissions units as well as initial operation to determine compliance with conditions of this permit. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after completing the required work and commencing operation. 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 each Compliance Authority.
[Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

11. Annual Operating Report (AOR): The owner or operator shall submit an AOR for the Air Pollutant Emitting Facility (DEP Form No. 62-210.900(5)) to the Department annually pursuant to subsection 62-210.370(3), F.A.C.

12. Shutdown of Existing GT Units: Upon commercial operation of Units 6A through 6E (EU045 through 049), the existing GT units (EU003 and 015) shall no longer be used to provide peaking generation to FPL's system. Two existing GTs from EU003 may be kept for black start capability at the facility. The Title V permit revision required by **Condition 10** of this section shall contain the designation of those GTs that will remain as black start capability and those GTs that no longer will be in service. The two existing CTs used for black start capability will be limited to 100 hours of operation for testing and maintenance proposes per year. If four emergency generators are installed (EU050), then the Title V revision required by **Condition 10** must contain the required information for the four emergency generators. [Application 0110037-011-AC; Rules 62-210.200 (Potential to emit) and 62-212.400 (BACT), F.A.C.]

PRE-CONSTRUCTION AMBIENT MONITORING

13. Nitrogen Oxide (NO_X), Nitrogen Dioxide (NO_2) and Ozone (O_3) Monitoring Station: The owner or operator shall install, maintain and operate ambient monitoring station(s) for NO_X, NO_2, and O_3 at location(s) on or near the property boundary of the Lauderdale Plant site. The monitoring station(s) and the collocated weather station(s) described in **Condition 14** of this section, shall be installed and in operation no later than 120 days after this permit becomes final. The owner or operator shall monitor for up to 12-months. Prior to the monitoring period, the owner or operator shall provide, for concurrence by the Department, the proposed

monitoring station location(s). The owner or operator shall operate the monitor(s) such that a minimum of 75% of the hourly concentration values are collected over the monitoring period. If four (4) exceedances of the 1-hour NO_2 standard are recorded during a six month interval during the 12-month monitoring period, the owner or operator shall discontinue monitoring and shall be required to implement the project contemplated by this air construction permit or propose an alternative project to DEP which will reduce NO_2 emissions sufficient to meet the new 1-hour NO_2 standard. Access to the monitoring site(s) and instruments must be provided to the Department. The monitoring station(s) shall be those designated as EPA reference or equivalent methods and shall be operated in accordance with Department approved quality assured policies and procedures.

14. Weather Station: In addition to the $NO_X/NO_2/O_3$ monitoring station, the owner or operator shall also install a weather station at a location that conforms to the EPA's Quality Assurance Handbook for Air Pollution Measurement Systems: Volume IV Meteorological Measurements and that at a minimum records wind speed and direction along with the ambient temperature. The weather station(s) shall be installed and operated in accordance with the manufacturer's requirements and procedures. The weather station(s) shall be in operation continuously during the time that the ambient monitoring station(s) is in operation.
15. Quality Assurance: Ambient monitoring activities required by this permit for $NO_X/NO_2/O_3$ shall be conducted in such a manner so as to meet the Department's minimum quality assurance requirements as delineated in 40 CFR Parts 50 and 58.14; Part 58, Appendices A, C, D and E; and the Department's *State-Wide Quality Assurance Air Program Plan (Plan).* Changes to the *Plan* will be distributed by Department to the owner or operator. The owner or operator shall comply with *Plan* changes as soon as practicable.
16. SOP for Monitoring/Weather Station(s): The owner or operator shall, within 60 days from the effective date of this permit, submit to the Department for review and approval standard operating procedures for the monitoring station(s) and weather station(s).
17. Monitoring Data: The owner or operator shall submit the verified monitoring data and quality assurance results to the Department within 15 days after the end of each calendar month in an electronic medium and format:, either Aerometric Information Retrieval System (AIRS) or other EP acceptable electronic format for the monitoring data, and the Precision and Accuracy Data (PA Data) or other EPA acceptable electronic format for the quality assurance data, as specified by the Department. The monitoring data report shall include the operation of the GTs during the monitoring period to include: the date of the GT operation of each GT; each hour during the day when each GT was in operation; the operational load of each GT during each hour of operation; and the NO_X emissions while each GT was in operation.
18. Accuracy Audits: The owner or operator shall allow the Department, with a minimum of seven days prior notification, to access to the monitoring/weather station location for the purpose of the performance of accuracy audits which may be completed in lieu of, or in addition to, the owner or operator's accuracy audits as specified in 40 CFR, Part 58, Appendix A, 3.2 and 3.4. The owner or operator shall also submit to a 6 month system audit utilizing the requirements in 40 CFR Part 58, Appendix A, 2.5. The systems audit, which reviews the quality assurance and monitoring effort for the preceding 6 months, shall be conducted at the conclusion of the 6 month auditing period in which the audited data were produced. In addition, the Department staff shall be allowed access to the monitoring locations, with a minimum of seven (7) days prior notification, for the purpose of determining compliance with the siting requirements as specified, in 40 CFR Part 58, Appendix E.

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A. Simple Cycle CT (EU ID No. 045 to 049)

This section of the permit addresses the following emissions units.

EU ID No.	Emission Unit Description
045	Nominal 200 MW Combustion turbine-electric generator (Unit 6A)
046	Nominal 200 MW Combustion turbine-electric generator (Unit 6B)
047	Nominal 200 MW Combustion turbine-electric generator (Unit 6C)
048	Nominal 200 MW Combustion turbine-electric generator (Unit 6D)
049	Nominal 200 MW Combustion turbine-electric generator (Unit 6E)

The CT being evaluated for the Project include the General Electric (GE) 7FA.05 and 7FA.04 models and the Siemens Power Generation, Inc. (Siemens) SGT6-5000F(5) model, i.e., F5, or other vendor equivalents. Each CT may utilize inlet air cooling that may consist of evaporative cooling or an alternative system.

Nominal Design Heat Input Ratings ***(Note: vendor equivalents will fall within the same range)***

- GE 7FA.05 CT: 1,990.3 MMBtu/hr when firing natural gas and 2,121.3 MMBtu/hr when firing fuel oil, based on a compressor inlet air temperature of 35 Fahrenheit (°F), 60 percent (%) relative humidity, 14.7 pounds per square inch (psi) pressure, the lower heating value (LHV) of each fuel and 100% load. This GE CT model represents the worst case scenario with regard to heat input and emissions.
- SGT6-5000F(5) CT: 2,022.0 MMBtu/hr when firing natural gas and 2,077.0 MMBtu/hr when firing fuel oil, based on a compressor inlet air temperature of 35 °F, 60% relative humidity, 14.7 psi pressure, the LHV of each fuel and 100% load.

{Note: Actual heat input rate will vary depending upon gas turbine characteristics, ambient conditions and inlet air cooling.}

APPLICABLE STANDARDS AND REGULATIONS

1. BACT Determinations: Determinations of the Best Available Control Technology (BACT) were conducted for nitrogen oxides (NO_X), carbon monoxide (CO), particulate matter ($PM/PM_{10}/PM_{2.5}$) and volatile organic compounds (VOC). [Rule 62-210.200 (BACT), F.A.C.]

2. NSPS Requirements: These units shall comply with the applicable NSPS in 40 CFR 60, including: Subpart A (General Provisions) and Subpart KKKK (Standards of Performance for Stationary Gas Turbines). See Appendices Subpart A and KKKK of this permit. The BACT emissions standards for NO_X and the fuel sulfur specifications are as stringent as, or more stringent than the NO_X and sulfur dioxide (SO_2) limits imposed by the applicable NSPS provisions. Some separate reporting and monitoring may be required by the individual subparts. [Rule 62-204.800(7)(b), F.A.C.; and NSPS 40 CFR 60, Subparts A and KKKK]

3. NESHAP Requirements: These units shall comply with the applicable NESHAP in 40 CFR 63, including: Subpart A (General Provisions) and Subpart YYYY (National Emission Standard for Hazardous Air Pollutants for Stationary Combustion Turbines). See Appendices Subpart A and YYYY of this permit. This NESHAP provision has a maximum achievable control technology (MACT) limit of 91 parts per billion by volume dry (ppbvd) corrected to 15% oxygen (O_2), i.e., 91 ppmvd @15% O_2, for formaldehyde (CH_2O). This emission limit of Subpart YYYY shall apply if the facility exceeds 1,000 turbine fired hours cumulatively in any one year. Some separate reporting and monitoring may be required by the individual subparts. [Rule 62-204.800(7)(b), F.A.C.; and NESHAP 40 CFR 63, Subparts A and YYYY]

EQUIPMENT DESCRIPTION

4. Combustion Turbines: The permittee is authorized to install, tune, operate, and maintain five GE 7FA.05, GE 7FA.04, Siemens F5 or other vendor equivalents CT with a nominal generating capacity of 200 MW/each and an inlet air filtration system with inlet air cooling (such as evaporative coolers). The CT will be designed for operation in simple cycle mode and will have dual-fuel capability (natural gas and ULSD fuel oil). [Application 0110037-011-AC; Design]

CONTROL TECHNOLOGY

5. Combustion Technology: The permittee shall install, operate and maintain the dry-low NO_X (DLN) combustion system or its equivalent with a start-up NO_X technology on each CT to control NO_X emissions from the CT when firing natural gas. Prior to the initial emissions performance tests required for the CT, the DLN combustors or its equivalent and automated gas turbine control system shall be tuned to achieve the permitted levels for NO_X. Thereafter, the system shall be maintained and tuned in accordance with the manufacturer's recommendations or determined best practices.
[Design; Rule 62-212.400(10)(BACT), F.A.C.]

6. Wet Injection: The permittee shall install, operate, and maintain a water injection system with combustion control technology to reduce NO_X emissions (including startup emissions) from the CT when firing ULSD fuel oil. Prior to the initial emissions performance tests, the water injection system shall be tuned to achieve sufficiently low NO_X values to meet the NO_X limits of this permit. Thereafter, the system shall be maintained and tuned in accordance with the manufacturer's recommendations or determined best practices.
[Rule 62-212.400(10)(BACT), F.A.C.]

PERFORMANCE REQUIREMENTS

7. Authorized Fuels: The combustion turbines shall fire natural gas as the primary fuel, which shall contain no more than 2 grains of sulfur per 100 standard cubic feet (gr. sulfur/100 SCF) of natural gas. As a restricted alternate fuel, the combustion turbines may fire ULSD fuel oil containing no more than 0.0015% sulfur by weight. [Rules 62-210.200 (Potential to emit, and BACT) and 62-212.400, F.A.C.]

8. Hours of Operation:
   a. *Natural Gas Operation:* The five CTs may operate an average of no more than a total of 3,300 hours per turbine in any consecutive 12 month period.
   b. *ULSD Fuel Oil Operation:* Of the overall average 3,300 operational hours, each CT may operate on average no more than 500 hours in any consecutive 12 month period on ULSD fuel oil.

   [Rules 62-210.200(PTE, and BACT) and 62-212.400 (PSD), F.A.C.]

9. Performance Curves: The permittee shall provide manufacturer's performance curves (or equations) that correct combustion turbine design heat input rating and operation for site conditions to the Permitting and Compliance Authorities within 45 days of completing the initial compliance testing. Operating data may be adjusted for the appropriate site conditions in accordance with the performance curves and/or equations on file with the Department. [Rule 62-210.200(PTE), F.A.C.]

10. Simple Cycle, Intermittent Operation: The turbines shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by this permit. This restriction is based on the permittee's request, which formed the basis of the PSD applicability and BACT determination and resulted in the emission standards specified in this permit. For any request to convert this unit to combined cycle operation by installing/connecting to heat recovery steam generators, including changes to the fuel quality or quantity related to combined cycle conversion which may cause an increase in short or long-term emissions, the permittee may be required to submit a full PSD permit application complete with a new proposal of the BACT as if the unit had never been built. [Rules 62-212.400(12) and 62-212.400(BACT), F.A.C.]

EMISSIONS AND TESTING REQUIREMENTS

11. Emission Standards: Emissions from the CT shall not exceed the following standards

Pollutant		Emission Standard [a,b]	Basis	Compliance Method [c]	Averaging Time
NO_X	Gas	15.0 ppmvd @15% O_2	NSPS KKKK	CEMS	4-hr rolling avg.
		9.0 ppmvd @15% O_2	BACT		24-hr block avg.
		77.0 lb/hour [d]			One 24-hr block [d]
	Oil	42.0 ppmvd @15% O_2	NSPS KKKK, BACT		4-hr rolling avg.

A. Simple Cycle CT (EU ID No. 045 to 049)

Pollutant		Emission Standard [a,b]	Basis	Compliance Method [c]	Averaging Time
		378.0 lb/hour [d]	BACT		One 24-hr block [d]
CO	Gas	4.0 ppmvd @15% O_2	BACT	Initial and Annual Stack Tests	three 1-hr runs
		21.0 lb/hour			
	Oil	9 ppmvd @15% O_2			
		49.0 lb/hour			
$PM/PM_{10}/PM_{2.5}$ [e]		2.0 gr. sulfur/100 SCF natural gas 0.0015% sulfur fuel oil	BACT	Fuel Record Keeping	N/A
		10 percent opacity		Visible Emissions Annual Test [f]	6-minute block
SO_2 [e]		2.0 gr. sulfur/100 SCF natural gas 0.0015% sulfur fuel oil	Reasonable Assurance	Fuel Record Keeping	N/A
VOC	Gas	3.77 lb/hour	BACT	Initial and Annual Stack Tests	three 1-hr runs
	Oil	8.0 lb/hour			

a. NO_X concentration emission standards are expressed in parts per million by volume, dry, corrected to 15 percent oxygen, abbreviated as ppmvd @15% O_2; CO concentration emission standards are expressed as ppmvd (uncorrected).
b. The mass emission rate standards in pounds per hour (lb/hour) are based on a turbine inlet condition of 35 °F and using the higher heating value (HHV) of the fuel. Mass emission rate shall be adjusted to actual test conditions in accordance with the performance curves and/or equations provided to the Department pursuant to **Specific Condition 9** above.
c. CEMS means continuous emissions monitoring system.
d. One time initial compliance demonstration by CEMS. Subject to the notification requirements in 62-297.310(7)(a)9., F.A.C. The demonstration period shall include all valid hours within the designated 24-hour block and not less than three valid hours during the block. Pound/hour NO_X values reported as NO_2 equivalent of nitrous oxide (NO) plus nitrogen dioxide (NO_2). Subsequent annual testing is not required.
e. The fuel sulfur specifications combined with the efficient combustion design and operation of the combustion turbines represent BACT for $PM/PM_{10}/PM_{2.5}$ and SO_2 emissions. Compliance with the fuel specifications, CO standards, and visible emissions (opacity) limit shall serve as indicators of good combustion.
f. Compliance with the 10% opacity standard shall be demonstrated by conducting 30-minute tests in accordance with EPA Method 9 - Visual Determination of Opacity.

[[Rules 62-4.070(3), 62-210.200, 62-212.400, 62-297; and 40 CFR 60, Subpart KKKK]

12. Unconfined Particulate Emissions: During the construction period, unconfined PM emissions shall be minimized by dust suppressing techniques such as covering, confining, or applying water or chemicals to the affected areas, as necessary. [Rule 62-296.320(4)(c), F.A.C.]

13. Test Methods: Required initial and annual compliance stack tests shall be performed in accordance with the following reference methods.

Method	Description of Method and Comments
7E	Determination of NO_X Emissions - Instrumental
9	Visual Determination of Opacity
10	Determination of Carbon Monoxide Emissions from Stationary Sources
20	Determination of NO_X, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
320	Vapor Phase Organic & Inorganic Emissions by Extractive FTIR

The methods are described in 40 CFR 60 and 63, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used for compliance testing unless prior written approval is received from the administrator of the Department's Office of Permitting and Compliance Section in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C. [Rules 62-204.800, F.A.C.; 40 CFR 60, Appendix A]

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14. Testing Requirements: Initial and annual tests shall be conducted at 90% or greater of the design heat input ratings provided in emissions unit description above and corrected as described therein. If it is impracticable to test within the described range, the combustion turbine may be tested at less than the described range. In such case, the reported mass emission rates (corrected as described in **Specific Condition 11** above) shall be further corrected by dividing the result by the percent of the design heat rating at which the test was conducted and multiplying by 100%. For example, if tested at 85% capacity and the measured actual mass emission rate was 50 lb/hour, the adjusted mass emission rate (ER_{adj}) would be:

15. Initial Compliance Demonstration: Initial compliance stack tests while *firing natural gas* shall be conducted within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. Initial testing *on fuel oil* shall be conducted within 60 days of any fuel oil firing in the CT. In accordance with the test methods specified in this permit, the CT shall be tested to demonstrate initial compliance with the mass emission rate standards for NO_X, CO, VOC and with the visible emissions standard. The permittee shall provide the Compliance Authority with any other initial emissions performance tests conducted to satisfy vendor guarantees including CO, VOC and particulate tests. [Rules 62-4.070, 62-297.310(7)(a), F.A.C. and 40 CFR 60.8]

16. Subsequent Compliance Testing: The annual compliance test for VOC, CO and visible emissions shall be conducted during each federal fiscal year (October 1st to September 30th) while firing natural gas. A VOC, CO and visible emissions test shall also be performed while firing fuel oil, on each combustion turbine that is fired with fuel oil, for more than 400 hours during the federal fiscal year. [Rules 62-4.070, 62-210.200(BACT), and 62-297.310(7)(a)4, F.A.C.]

17. Continuous Compliance: Continuous compliance with the permit standard for emissions of NO_X shall be demonstrated with data collected from the required CEMS. [Rules 62-4.070, and 62-210.200(BACT), 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 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.]

EXCESS EMISSIONS

*{Permitting Note: The following conditions apply only to the State Implementation Plan (SIP)-based emissions standards in **Specific Condition No. 11** of this subsection. Rule 62-210.700, F.A.C. (Excess Emissions) cannot vary or supersede any federal provision of the NSPS, NESHAP, or Acid Rain programs.}*

19. Definitions:
    a. *Startup* is defined as the commencement of operation of any emissions unit which has shut down or ceased operation for a period of time sufficient to cause temperature, pressure, chemical or pollution control device imbalances, which result in excess emissions.
    b. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
    c. *Malfunction* is defined as any unavoidable mechanical and/or electrical failure of air pollution control equipment or process equipment or of a process resulting in operation in an abnormal or unusual manner.

    [Rule 62-210.200(165, 242, and 258), F.A.C.]

20. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. All such preventable emissions shall be included in any compliance determinations based on CEMS data. [Rule 62-210.700(4), F.A.C.]

21. Data Exclusion Procedures for SIP Compliance: As per the procedures in this condition, limited amounts of CEMS emissions data per **Specific Condition No. 22** may be excluded from the corresponding SIP-based compliance demonstration, provided that best operational practices to minimize emissions are adhered to, the duration of data excluded is minimized, and the procedures for data exclusion listed below are followed. As provided by the Department's authority in Rule 62-210.700(5), F.A.C., the following provisions and those given in **Specific Condition No. 22** are adjustments to maximum and minimum factors in Rule 62-210.700(1), F.A.C.

    a. Limiting Data Exclusion. If the compliance calculation using all valid CEMS emission data indicates that the emission unit is in compliance, then no CEMS data shall be excluded from the compliance demonstration.

    b. Event Driven Exclusion. There must be an underlying event (startup, shutdown, malfunction, or fuel switching) in order to exclude data. If there is no underlying event, then no data may be excluded.

    c. Continuous Exclusion. Data shall be excluded on a continuous basis. Data from discontinuous periods shall not be excluded for the same underlying event.

    [Rule 62-210.700, F.A.C.]

22. Allowable Data Exclusions: The following data may be excluded from the corresponding SIP-based compliance demonstration for each of the events listed below in accordance with the Data Exclusion Procedures of Condition 210:

    a. *Startup and Shutdown:* Up to 60 minutes of CEMS data may be excluded for each combustion turbine startup and shutdown cycle. For startups and shutdowns of less than 60 minutes in duration, only those minutes attributable to startup and shutdown may be excluded.

    b. *Malfunction*: Up 120 minutes (in any operating day) of CEMS data may be excluded due to a documented malfunction. A "documented malfunction" means a malfunction that is documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic email.

    c. *DLN Tuning*: CEMS data collected during initial or other DLN tuning sessions may be excluded from the compliance demonstrations provided the tuning session is performed in accordance with the manufacturer's specifications or determined best practices. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be by telephone, facsimile transmittal, or electronic mail. [Design; Rule 62-4.070(3), F.A.C.]

    d. *Fuel Switching*: Up to 60 minutes of CEMS data may be excluded for each fuel switch. For fuel switches of less than 60 minutes in duration, only those minutes attributable to fuel switching may be excluded.

    All valid emissions data (including data collected during startup, shutdown, malfunction, DLN tuning, and fuel switching) shall be used to report emissions for the Annual Operating Report.

    [Rules 62-210.200(BACT), 62-210.370, and 62-210.700, F.A.C.]

23. Notification Requirements: The owner or operator shall notify the Compliance Authority within one working day of discovering any emissions that demonstrate non-compliance for a given averaging period. [Rule 62-4.070, F.A.C.]

CONTINUOUS MONITORING REQUIREMENTS

24. CEMS: Subject to the following, the permittee shall install, calibrate, operate, and maintain a CEMS to measure and record the emissions of NO_X from the combustion turbines in terms of the applicable standards.

The monitoring system shall be installed, and functioning within the required performance specifications by the time of the initial compliance demonstration.

a. *NO_X Monitor:* Each NO_X monitor shall be certified pursuant to the specifications of 40 CFR 75. Quality assurance procedures shall conform to the requirements of 40 CFR 75. The annual and required RATA tests required for the NO_X monitor shall be performed using EPA Method 20 or 7E in Appendix A of 40 CFR 60.

b. *Diluent Monitor:* The oxygen (O_2) or carbon dioxide (CO_2) content of the flue gas shall be monitored at the location where NO_X is monitored to correct the measured emissions rates to 15% O_2. If a CO_2 monitor is installed, the O_2 content of the flue gas shall be calculated using F-factors that are appropriate for the fuel fired. Each monitor shall comply with the performance and quality assurance requirements of 40 CFR 75.

[Rules 62-4.070(3), 62-210.200(BACT), F.A.C., and 40 CFR Part 75]

25. Continuous Monitoring System (CMS): If after three years of operation any CT whose installation is authorized by the permit meets of the definition of a "Peaking Unit" per §72.2 – Definitions:

(1) A unit that has:

(i) An average capacity factor of no more than 10.0 percent during the previous three calendar years and

(ii) *A capacity factor of no more than 20.0 percent in each of those calendar years.*

FPL may request that the Department allow the NO_X emission rate methodology in Appendix E to 40 CFR Part 75 Appendix E – Optional NO_X Emissions Estimation Protocol for Gas-Fired Peaking Units and Oil-Fired Peaking Units to be used in lieu of the CEMS requirements specified in this permit.

After approval by the Department, Equation F-6 (40 CFR Part 75, Appendix F) shall be used in conjunction with Appendix E of 40 CFR Part 75 to correct the NO_X emissions rate to 15% O_2.

[Rules 62-4.070(3), 62-210.200(BACT), F.A.C., and 40 CFR Part 75 Appendices E and F]

26. Moisture Correction: If necessary, the owner or operator shall determine the moisture content of the exhaust gas and develop an algorithm to enable correction of the monitoring results to a dry basis (0% moisture). [Rules 62-4.070(3), 62-210.200(BACT), F.A.C]

27. CEMS Data Requirements for BACT Standards:

{Permitting Note: The following conditions apply only to the SIP-based NO_X emissions standards in ***Specific Condition No. 11*** *of this section. These requirements cannot vary or supersede any federal provision of the NSPS, or Acid Rain programs. Additional reporting and monitoring may be required by the individual subparts.}*

a. *Data Collection*: Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, emissions shall be monitored and recorded during all operation including startup, shutdown, and malfunction.

b. *Operating Hours and Operating Days*: An hour is the 60-minute period beginning at the top of each hour. Any hour during which an emissions unit is in operation for more than 15 minutes is an operating hour for that emission unit. A day is the 24-hour period from midnight to midnight. Any day with at least one operating hour for an emissions unit is an operating day for that emission unit.

c. *Valid Hour*: Each CEMS shall be designed and operated to sample, analyze, and record data evenly spaced over the hour at a minimum of one measurement per minute. All valid measurements collected during an hour shall be used to calculate a 1-hour block average that begins at the top of each hour.

(1) Hours that are **not operating** hours are **not valid** hours.

(2) For each operating hour, the 1-hour block average shall be computed from at least two data points separated by a minimum of 15 minutes. If less than two such data points are available, there is insufficient data and the 1-hour block average is not valid.

(3) During fuel switching an hour in which fuel oil is fired is attributed towards compliance with the permit standards for oil firing.

d. *24-hour Block Averages*: A 24-hour block shall begin at midnight of each operating day and shall be calculated from 24 consecutive valid hourly average concentration values. If a unit operates less than 24 hours during the block, or there are less than 24 valid hourly averages available, the 24-hour block average shall be the average of all available valid hourly average concentration values for the 24-hour block. *{Permitting Note: For purposes of determining compliance with the 24-hour CEMS standards, the missing data substitution methodology of 40 CFR Part 75, Subpart D, shall not be utilized. Instead, the 24-hour block average shall be determined using the remaining hourly data in the 24-hour block and periods of missing CEMS data are to be reported as monitor downtime in the excess emissions and monitoring performance reports. For example, the "24-hr block average" may consist of only 6 valid operating hours for the day.}*

e. *4-hour Rolling Averages:* A 4-hour rolling average is the arithmetic average of the average emission concentration measured by the CEMS for a given hour and the three unit operating hour average concentrations immediately preceding that unit operating hour.

f. *Data Exclusion:* Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown, malfunction, DLN tuning, and fuel switches. Some of the CEMS emissions data recorded during these episodes may be excluded from the corresponding CEMS compliance demonstration subject to the provisions of **Conditions 21 and 221** of this subsection.

g. *Availability*: The quarterly excess emissions report shall identify monitor availability for each quarter in which the unit operated.

[Rules 62-4.070(3) and 62-210.200(BACT), F.A.C.]

CEMS REQUIREMENTS FOR ANNUAL EMISSIONS

28. CEMS Annual Emissions Requirement: The owner or operator shall use data from the NO_X CEMS when calculating annual emissions for purposes of computing actual emissions, baseline actual emissions, and net emissions increase, as defined at Rule 62-210.200, F.A.C., and for purposes of computing emissions pursuant to the reporting requirements of Rule 62-210.370(3), F.A.C. In computing the emissions of a pollutant, the owner or operator shall account for the emissions during periods of startup and shutdown of the emissions unit. [Rules 62-210.200, and 62-210.370(3), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

29. Monitoring of Operations: The permittee shall monitor and record the operating rate of the CT on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown, malfunction, DLN tuning or its equivalent, and fuel switching). Such monitoring shall be made by monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-210.200(BACT), F.A.C.]

30. Monthly Operations Summary: By the 15th calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for the combustion turbines for the previous month of operation: fuel consumption, hours of operation on each fuel, and the updated calendar year totals for each. Information recorded and stored as an electronic file shall be available for inspection and printing within at least three days of a request by the Department. The fuel consumption shall be monitored in accordance with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-210.200(BACT), F.A.C.]

31. Fuel Sulfur Records: The permittee shall demonstrate compliance with the fuel sulfur limits specified in this permit by maintaining the following records of the sulfur contents.

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a. *Natural Gas Sulfur Limit*: Compliance with the fuel sulfur limit for natural gas shall be demonstrated by keeping reports obtained from the vendor indicating the average sulfur content of the natural gas being supplied from the pipeline for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D4468-85, D5504-01, D6228-98 and D6667-01, D3246-81 or more recent versions.

b. *ULSD Fuel Oil Sulfur Limit*: Compliance with the ULSD fuel oil sulfur limit shall be demonstrated by taking a sample, analyzing the sample for fuel sulfur, and reporting the results to each Compliance Authority before initial startup. Sampling the fuel oil sulfur content shall be conducted in accordance with ASTM D4057-88, Standard Practice for Manual Sampling of Petroleum and Petroleum Products, and one of the following test methods for sulfur in petroleum products: ASTM methods D5453-00, D129-91, D1552-90, D2622-94, or D4294-90. More recent versions of these methods may be used. For each subsequent fuel delivery, the permittee shall maintain a permanent file of the certified fuel sulfur analysis from the fuel vendor. At the request of the Compliance Authority, the permittee shall perform additional sampling and analysis for the fuel sulfur content.

The above methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D. [Rules 62-4.070(3) and 62-4.160(15), F.A.C.]

32. Emissions Performance Test Reports: A report indicating the results of any required emissions performance test shall be submitted to the Compliance Authority no later than 45 days after completion of the last test run. The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. and in Appendix D of this permit. [Rule 62-297.310(8), F.A.C.].

33. Excess Emissions Reporting:

a. *Malfunction Notification:* If emissions in excess of a standard (subject to the specified averaging period) occur due to malfunction, the permittee shall notify the Compliance Authority within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident.

b. *SIP Quarterly Report*: Within 30 days following the end of each calendar-quarter, the permittee shall submit a report to the Compliance Authority summarizing periods of NO_X emissions in excess of the BACT permit standard following the NSPS format in 40 CFR 60.7(c), Subpart A. A summary of data excluded from SIP compliance calculations should also be provided. In addition, the report shall summarize the NO_X CEMS system monitor availability for the previous quarter.

[Rules 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C., and 40 CFR 60.7 and 60.4375]

34. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating hours and emissions from this facility in accordance with Rule 62-210.370. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(2), F.A.C.]

35. NESHAP 40 CFR 63 Requirements - Subpart YYYY: Except as otherwise provided in this permit, these emissions units shall comply with all applicable requirements of 40 CFR 63, Subpart YYYY, National Emissions Standards for Hazardous Air Pollutants for Stationary Combustion Turbines, which have been adopted by reference in Rule 62-204.800(11)(b)81., F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.6170(c)(1) through (5). These emissions units shall comply with Appendix 40 CFR 63 Subpart YYYY included with this permit. [NESHAP 40 CFR 63, Subpart YYYY.]

{Permitting Note: The requirements of NESHAP 40 CFR 63 Subpart YYYY emission limitations for oil-fired Stationary Combustion Turbines shall apply if the facility exceeds 1,000 turbine fired hours cumulatively in any one year.}

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B. For Nominal 3,100 kW Emergency Generators (EU ID No. 050)

This section of the permit addresses the following emissions unit.

EU D No.	Emission Unit Description
050	Four Nominal 3,100 kW Black Start Emergency Generators (model year 2011 or later)

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS, Subpart IIII Applicability: The black start emergency generators are Stationary Compression Ignition Internal Combustion Engines (Stationary ICE) and are subject to 40 CFR 60, Subpart IIII. The applicant shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emission unit and its operations (e.g. non-road, emergency, displacement, capacity and model year selected).

   [40 CFR 60, subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and Rule 62-204.800(8)(b)79., F.A.C.]

2. NESHAP, Subpart ZZZZ Applicability: The emergency generators are Stationary Reciprocating Internal Combustion engines located at an major source of hazardous air pollutants emissions and are subject to 40 CFR 63, Subpart ZZZZ. Because the emergency generators are subject to regulation under 40 CFR 60, Subpart IIII, Subpart ZZZZ only requires that the emergency generator meet the requirements of 40 CFR 60, Subpart IIII. No further requirements of Subpart ZZZZ apply to the emergency generators.

   [40 CFR 63, subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, section 63.6590(c) and Rule 62-204.800(11)(b)82., F.A.C.]

EQUIPMENT SPECIFICATIONS

3. Equipment: The permittee is authorized to install, operate, and maintain four nominal 3,100 kW ULSD fuel oil fired emergency generators. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

4. Fuel Specifications: The generator shall burn ULSD fuel oil with a sulfur content of 15 ppm or less. [Applicant Request; Rule 62-210.200(PTE), F.A.C.; NSPS Subpart IIII, §60.4207]
5. Hours of Operation: The hours of operation shall not exceed 100 hours per year except as otherwise provided in this condition. Other requirements and limitations are:
   a. There is no time limit on the use of emergency stationary ICE in emergency situations.
   b. You may operate your emergency stationary ICE for any combination of the purposes specified in "i" to "iii" below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed "c." below counts as part of the 100 hours per calendar year.
      i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 ICE beyond 100 hours per calendar year.
      ii. Emergency stationary ICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 60.17), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.
      iii. Emergency stationary ICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.
   c. 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

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per calendar year for maintenance and testing and emergency demand response provided in paragraph "b." above. Except as provided in paragraph "d." below, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

d. The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

i. The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

ii. The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

iii. The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

iv. The power is provided only to the facility itself or to support the local transmission and distribution system.

v. The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[Applicant Request; Rule 62-210.200(PTE), F.A.C.; NSPS Subpart IIII, §60.4211(f)]

6. Emergency Generator BACT Emission Limits:

Emergency Generator (> 560 kilowatts)	**CO** (g/kW-hr)[1]	**PM** (g/kW-hr)	**NMHC[2]+NO_X** (g/kW-hr)	**Diesel Fuel[3]** (sulfur)
2011 and later	3.5	0.20	6.4	15 ppm

1. g/kW-hr means grams per kilowatt-hour.
2. NMHC means Non-Methane Hydrocarbons.
3. Nonroad diesel specification of 15 ppm is from 40 CFR part 80, subpart I – Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel.

[Applicant Request; 62-212.400(BACT), F.A.C.; NSPS Subpart IIII, §60.4205]

7. Emergency Generators Testing Requirements: Each unit shall be stack tested to demonstrate initial compliance with the emission standards for CO and NO_X. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup of each unit. As an alternative, an EPA certification of emissions characteristics of the purchased model that are at least as stringent as the BACT (NSPS Subpart IIII) values and the use of ULSD fuel oil with a sulfur content of 15 ppm or less can be used to fulfill this requirement.
[Rule 62-297.310(7)(a)1, F.A.C.; 40 CFR 60.8 and NSPS Subpart IIII, §60.4210 and §60.4211]

8. Test Methods: Any required tests shall be performed in accordance with the following reference methods.

Method	**Description of Method and Comments**
7E	Determination of Nitrogen Oxides Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources

[NSPS Subpart IIII, §60.4212]

NOTIFICATION, REPORTING AND RECORDKEEPING

9. Notifications Reporting and Recordkeeping: Notifications reporting and recordkeeping are required pursuant to 40 CFR 60.7, 40 CFR 63.9, and NSPS Subpart IIII, §60.4214(b) and §60.4214(d) for the four 3,100 kW emergency generators.

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10. Additional Reporting: The permittee shall maintain records of the amount of liquid fuel used. These records shall be submitted to the Compliance Authority on an annual basis or upon request. [Rule 62-4.070(3), F.A.C.]

TWO EXISTING GT AS BLACK START EMERGENCY GENERATORS

Two existing GTs from EU003 may be kept for black start capability at the facility. If FPL elects to use this option in lieu of the four nominal 3,100 kW Emergency Generators (EU ID No. 050), the two existing GT units at the Fort Myers plant shall meet the following requirements.

11. Emission Limits and other Requirements: The GT must meet the emission limits and compliance, recordkeeping and testing requirements for these units that are in the current Fort Myers Title V Air Operation Permit No. 0710002-018-AV. [Applicant Request; 62-212.400(BACT), F.A.C.]

12. Hour of Operation: Each GT black start unit will be limited to of 100 hours per year for testing and maintenance purposes. [Applicant Request; 62-212.400(BACT), F.A.C.]

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C. One Nominal 300hp Emergency Fie Pump Engine (EU ID No. 051)

This section of the permit addresses the following emissions unit.

EU D No.	Emission Unit Description
051	One Nominal 300 hp Emergency Fire Pump Engine (model year 2006 or later)

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS, Subpart IIII Applicability: The emergency fire pump engine is a Stationary Compression Ignition Internal Combustion Engine (Stationary ICE) and is subject to 40 CFR 60, Subpart IIII. The applicant shall comply with 40 CFR 60, Subpart IIII only to the extent that the regulations apply to the emission unit and its operations (e.g. non-road, emergency, displacement, capacity and model year selected).

   [40 CFR 60, subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and Rule 62-204.800(8)(b)79., F.A.C.]

2. NESHAP, Subpart ZZZZ Applicability: The emergency fire pump engine is Stationary Reciprocating Internal Combustion engine located at an area major source of hazardous air pollutants emissions and is subject to 40 CFR 63, Subpart ZZZZ. Because the emergency fire pump engine is subject to regulation under 40 CFR 60, Subpart IIII, Subpart ZZZZ only requires that the emergency fire pump engine meet the requirements of 40 CFR 60, Subpart IIII. No further requirements of Subpart ZZZZ apply to the emergency fire pump engine.

   [40 CFR 63, subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, section 63.6590(c) and Rule 62-204.800(11)(b)82., F.A.C.]

EQUIPMENT SPECIFICATIONS

3. Equipment: The permittee is authorized to install, operate, and maintain one nominal 300 hp ULSD fuel oil fired emergency fire pump engine. [Applicant Request; Rule 62-210.200(PTE), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

4. Fuel Specifications: The emergency fire pump engine shall burn ULSD fuel oil with a sulfur content of 15 ppm or less. [Applicant Request; Rule 62-210.200(PTE), F.A.C.; NSPS Subpart IIII, §60.4207]
5. Hours of Operation: The hours of operation shall not exceed 100 hours per year except as otherwise provided in this condition. Other requirements and limitations are:
   a. There is no time limit on the use of emergency stationary ICE in emergency situations.
   b. You may operate your emergency stationary ICE for any combination of the purposes specified in "i" below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed "c." below counts as part of the 100 hours per calendar year.
      i. Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 ICE beyond 100 hours per calendar year.
   c. 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.

   [Applicant Request; Rule 62-210.200(PTE), F.A.C.; NSPS Subpart IIII, §60.4211(f)]

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C. One Nominal 300hp Emergency Fie Pump Engine (EU ID No. 051)

6. Emergency Fire Pump Engine BACT Emission Limits:

Fire Pump Engine (300≤HP<600)	**CO** (g/kW-hr) [1]	**PM** (g/kW-hr)	**NMHC [2]+NO_X** (g/kW-hr)	**Diesel Fuel [3]** (sulfur)
2006 and later	3.5	0.20	4.0	15 ppm

1. g/kW-hr means grams per kilowatt-hour.
2. NMHC means Non-Methane Hydrocarbons.
3. Nonroad diesel specification from 40 CFR part 80, subpart I – Motor Vehicle Diesel Fuel; Nonroad, Locomotive, and Marine Diesel Fuel; and ECA Marine Fuel. Link to Non-Road Diesel Spec

[Applicant Request; 62-212.400(BACT), F.A.C.; NSPS Subpart IIII, §60.4205]

7. Emergency Fire Pump Engine Testing Requirements: The unit shall be stack tested to demonstrate initial compliance with the emission standards for CO and NO_X. The tests shall be conducted within 60 days after achieving the maximum production rate at which the unit will be operated, but not later than 180 days after the initial startup of each unit. As an alternative, an EPA certification of emissions characteristics of the purchased model that are at least as stringent as the BACT (NSPS Subpart IIII) values and the use of ULSD fuel oil with a sulfur content of 15 ppm or less can be used to fulfill this requirement.
[Rule 62-297.310(7)(a)1, F.A.C.; 40 CFR 60.8 and NSPS Subpart IIII, §60.4210 and §60.4211]

8. Test Methods: Any required tests shall be performed in accordance with the following reference methods.

Method	**Description of Method and Comments**
7E	Determination of Nitrogen Oxides Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources

[NSPS Subpart IIII, §60.4212]

NOTIFICATION, REPORTING AND RECORDKEEPING

9. Notifications Reporting and Recordkeeping: Notifications reporting and recordkeeping are required pursuant to 40 CFR 60.7, 40 CFR 63.9, and NSPS Subpart IIII, §60.4214(b) and §60.4214(d) for the four 3,100 kW emergency generators.

10. Additional Reporting: The permittee shall maintain records of the amount of liquid fuel used. These records shall be submitted to the Compliance Authority on an annual basis or upon request. [Rule 62-4.070(3), F.A.C.]

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D. Two 3-Million Gallon ULSD Fuel Oil Storage Tanks (EU ID No. 052)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
052	Two 3-million gallon Ultralow Sulfur Distillate Fuel Oil Storage Tanks

NSPS APPLICABILITY

1. NSPS, Subpart Kb Applicability: Based on the true vapor pressure of ultralow sulfur distillate fuel (< 3.5 kilopascals), the storage tanks **are not** subject to 40 CFR 60, Subpart Kb - Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984. [Application; 40 CFR 60.110b(b)]

EQUIPMENT SPECIFICATIONS

2. Equipment: The permittee is authorized to construct, operate, and maintain two 3-million gallon distillate fuel oil storage tanks to provide fuel oil emission units resulting from this project or to other units on the site. [Application]

EMISSIONS AND PERFORMANCE REQUIREMENTS

3. Hours of Operation: The hours of operation are not restricted (8,760 hours per year). [Application]

NOTIFICATION, REPORTING AND RECORDS

4. ULSD Fuel Oil Records: The permittee shall keep readily accessible records showing the maximum true vapor pressure of the stored liquid. Compliance with this condition may be demonstrated by using the information from the respective manufacturers safety data sheets (MSDS) for the fuel oil stored in the tanks. [Rule 62-4.070(3) F.A.C.; avoidance of 40 CFR 60, Subpart Kb]

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