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PERMITTEE

Duke Energy Florida, Inc. (DEF)
299 First Avenue North, FL-903
St. Petersburg, FL 33701-3308

Authorized Representative:
Mr. Brian V. Powers, Station Manager

Air Permit No. 1210003-008-AC
(PSD-FL-428)
Suwannee River Power Plant
Peaker Unit Project
Expires: December 31, 2018

FACILITY AND LOCATION

This is the final air construction permit, which authorizes the installation of two nominal 178 megawatt (MW) simple cycle combustion turbines (CT) at the DEFD Suwannee River Power Plant to provide additional peaking resources at the facility. The new CT will be designated Units P4 and P5 with corresponding emission unit (EU) Nos. 007 and 008. The Suwannee River Power Plant is an electric utilities plant categorized under Standard Industrial Classification No. 4911. The Suwannee River Power Plant is located within the city of Live Oak in Suwannee County, Florida. The facility can be accessed from River Road south of Route 90. The UTM coordinates are Zone 17, 290.466 kilometers (km) East, and 3362.521 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); 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.

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

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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.

Brian V. Powers, DEF: Brian.Powers@duke-energy.com
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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.

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FACILITY DESCRIPTION

Duke Energy Florida, Inc. (DEF) operates the existing Suwannee River Power Plant which is located within the city of Live Oak in Suwannee County, Florida. The facility is a nominal 345 megawatt (MW) electrical generation facility comprised of three fossil fuel fired steam generators (Boiler Nos. 1, 2, and 3) and three combustion turbine peaking units (CTP Unit Nos. 1, 2, and 3). Boiler Nos. 1, 2, and 3 began operation in 1953, 1954, and 1956 respectively while CTP Units Nos. 1, 2 and 3 began operation in October 1980. The current CTP units generate 189 MW with the boilers contributing 156 MW.

PROPOSED PROJECT

DEF proposes to construct two nominal 178 MW natural gas-fueled General Electric (GE) 7FA.03 model simple cycle combustion turbines (CT) and ancillary equipment. The ancillary equipment will include: two new natural gas-fired fuel gas heaters, a new emergency diesel fire pump, a new 2.5 million gallon double-wall fuel oil storage tank, as well as four new circuit breakers and miscellaneous natural gas piping components. The fuel for these two CT will be natural gas with 2 grains sulfur per 100 standard cubic feet (2 g S/100 scf) as the primary fuel and ultra-low sulfur distillate (ULSD) fuel oil with 0.0015% sulfur as a limited backup fuel. Natural gas will be delivered to the site by the existing pipeline; however, new piping components will be installed to deliver the fuel to the specific area where the new CT will be located. ULSD fuel oil delivery will be by truck.

The project includes the permanent shutdown of fossil fuel steam Boiler No. 3. Its shutdown date will be commensurate with the commercial operation of the new units. During the initial startup and shakedown of the CT peaking Units P4 and P5, the existing Boiler No. 3 may continue to operate.

A summary of the existing emission units and the corresponding emissions unit identification numbers (E.U. ID No.) within the Department's Air Resource Management System (ARMS) at the Suwannee River Power Plant is given below. The emission unit that is involved in this project is highlighted in turquoise in the table.

EU ID No.	Brief Description
001	Boiler No. 1
002	Boiler No. 2
003	Boiler No. 3 – **to be shutdown**
004	CTEG Peaking No. 1
005	CTEG Peaking No. 2
006	CTEG Peaking No. 3
007	Petroleum Product Storage -#2,6 oil, waste oil, unleaded gas
008	Unloading stations (3 No.2 , 9 No.6 high S & 4 No.6 low S)
009	Emergency Diesel Generator
010	Emergency Diesel Fire Pump Engine

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
011	Simple cycle combustion turbine-electrical generator (Unit P4)
012	Simple cycle combustion turbine-electrical generator (Unit P5)
013	2.5 million gallon ULSD fuel oil storage tank
014	Two 4.79 million British thermal units per hour (MMBtu/hr) natural gas heaters
015	160 horsepower (hp) Emergency diesel fire pump engine
016	New circuit breakers (emit Sulfur hexafluoride (SF_6) a greenhouse gas)

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New EU ID No.	Description
	Currently four circuit breakers are expected to be used.
017	Natural gas piping components (emits Methane (CH_4), a greenhouse gas)

REGULATORY CLASSIFICATION

The following federal regulations apply to the Suwannee River Power 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 Cross-State Air Pollution Rule (CSAPR).
- 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.

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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 Northeast District Office. The mailing address and phone number of the Northeast District Office is: 8800 Baymeadows Way West, Suite 100, Jacksonville, FL 32256-7590, (904) 256-1700.

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 IIII. NSPS Subpart IIII Requirements for Stationary Compression Ignition Internal Combustion Engines;
   g. Appendix KKKK. NSPS Subpart KKKK Requirements for Gas Turbines and Duct Burners;
   h. Appendix XS. Semiannual NSPS Excess Emissions Report;
   i. Appendix YYYY. NESHAP Subpart YYYY Requirements for Stationary Combustion Turbines; and
   j. Appendix ZZZZ. NESHAP Requirements for Reciprocating Internal Combustion Engines from 40 CFR 63, Subpart ZZZZ.

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

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completed within a reasonable time. This provision does not apply to the time period between 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 Boiler No. 3: Once commercial operation of the CT peaking Units P4 and P5 (EU 007 and 008) commences, the existing Boiler No. 3 (EU 003) shall be permanently shut down. During the initial startup and shakedown of the CT peaking Units P4 and P5, the existing Boiler No. 3 may continue to operate. [Application 1210003-008-AC; Rules 62-210.200 (Potential to emit) and 62-212.400 (BACT), F.A.C.]

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A. Simple Cycle CT (EU ID No. 011 to 012)

This section of the permit addresses the following emissions units.

EU ID No.	Emission Unit Description
011	Nominal 178 MW Combustion turbine-electric generator (Unit P4)
012	Nominal 178 MW Combustion turbine-electric generator (Unit P5)

The CT being used for the Project is the General Electric (GE) 7FA.03 model. Each CT may utilize inlet air cooling that may consist of evaporative cooling or an alternative system.

Nominal Design Heat Input Rating: 1,794 million British thermal unit per hour on a higher heating value basis (MMBtu/hr (HHV)) when firing natural gas and 1,977 MMBtu/hr (HHV) when firing fuel oil, based on a compressor inlet air temperature of 59 Fahrenheit (°F), 60 percent (%) relative humidity, 14.67 pounds per square inch (psi) pressure, 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 particulate matter ($PM/PM_{10}/PM_{2.5}$) and greenhouse gases (GHG). [Rules 62-210.200 (BACT) and 62-212.400 (PSD), 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. 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 oil-fired turbine 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 two GE 7FA.03, CT with a nominal generating capacity of 178 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 1210003-008-AC; Design]

CONTROL TECHNOLOGY

5. Combustion Technology: The permittee shall install, operate and maintain the dry-low NO_X (DLN) combustion system 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; Rules 62-210.200 (BACT) and 62-212.400 (PSD), 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

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

8. Hours of Operation:
   a. *Natural Gas Operation:* The two CT may operate no more than a combined total of 8,000 hours in any consecutive 12 month period.
   b. *ULSD Fuel Oil Operation:* The CT may operate a combined 1,000 hours in any consecutive 12 month period on ULSD fuel oil.

   [Rules 62-210.200 (PTE), 62-210.200 (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 CT shall operate only in simple cycle mode not to exceed the permitted hours of operation allowed by **Specific Condition 3.A.8** of 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 these units 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 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), 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.
		96 ppmvd (<75% peak load)			
	Oil	42.0 ppmvd @15% O_2	NSPS KKKK		
		96 ppmvd (<75% peak load)			
CO [d]	Gas	4.0 ppmvd @15% O_2	Application Avoids PSD	Initial and Annual Stack Tests	three 1-hr runs
		17.3 lb/hour			
	Oil	8 ppmvd @15% O_2			
		41.9 lb/hour			
$PM/PM_{10}/PM_{2.5}$ [e]		2.0 gr. sulfur/100 SCF natural gas 0.0015% sulfur fuel oil	BACT for $PM_{10}/PM_{2.5}$	Fuel Record Keeping	N/A
		10 percent opacity		Visible Emissions [f]	6-minute block

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A. Simple Cycle CT (EU ID No. 011 to 012)

Pollutant		Emission Standard [a,b]	Basis	Compliance Method [c]	Averaging Time
SO_2 [e]		2.0 gr. sulfur/100 SCF natural gas 0.0015% sulfur fuel oil	Application Avoids PSD	Fuel Record Keeping	N/A
VOC [d]	Gas	1.4 ppmvd @15% O_2	Application Avoids PSD	Initial Stack Test	Three 1-hr runs
		3.5 lb/hour			
	Oil	3.5 ppmvd @15% O_2			
		10.4 lb/hour			
GHG [g]	Gas	1,409 lb CO_2e/MW-hr	BACT	Monitoring of Fuel Consumption, Gross Power Output and Emission Factors	Gross Power Output, 12-month Rolling Average Basis at ISO Conditions
	Oil	1,973 lb CO_2e/MW-hr			

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.
b. The mass emission rate standards in pounds per hour (lb/hour) are based on a turbine inlet condition of 59 °F at 100% load 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. The Department has determined that an initial stack test is sufficient to demonstrate compliance with the CO and VOC mass and concentration emissions standards. Thereafter an annual stack test to demonstrate compliance with the CO concentration limit will suffice to provide reasonable assurance of compliance with all CO and VOC standards
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 ensures BACT is not triggered for 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.
g. Greenhouse gas carbon dioxide equivalents (CO2e) emission rate on a gross power output basis.

[Rules 62-4.070(3), 62-210.200(BACT), 62-212.400(PSD), 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
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
20	Determination of NO_X, Sulfur Dioxide, and Diluent Emissions from Stationary Gas Turbines
25	Determination of Total Gaseous Nonmethane Organic Emissions as Carbon
25A	Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer
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

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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]

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 3.A.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:

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

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 CO and 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 PM 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 CO (concentration limit) and visible emissions shall be conducted during each federal fiscal year (October 1st to September 30th) while firing natural gas. A CO (concentration limit) 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 (PTE), 62-210.200 (BACT), 62-212.400 (PSD), F.A.C., 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, 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), 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 3.A.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.

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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 3.A.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 3.A.22** are adjustments to the excess emission allowed 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 shut down 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.]

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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 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.., and 40 CFR Part 75]

25. 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) and 62-210.200(BACT), F.A.C]

26. 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. 3.A.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 partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required QA & maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NOx emission rate for the hour.
        (3) During fuel switching an hour in which fuel oil is fired is attributed towards compliance with the permit standards for oil firing.

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d. *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.

e. *Rolling12-month average, rolled monthly:* Compliance shall be determined after each operating month by calculating the arithmetic average of all the valid hourly averages from that operating month and the prior 11 operating months.

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 A.3.21 and 3.A.22** 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), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

27. Fuel Flow Monitors: Permittee shall install, certify, operate, and maintain fuel flow monitoring on each CT in accordance with the applicable requirements of 40 CFR Part 75, Appendix D, which shall constitute the "compliance monitoring system" for this permit. Consistent with §75.4(b), all applicable certification tests shall be completed within 180 calendar days after the date the unit commences commercial operation (as defined in 40 CFR 72.2). Following initial certification, the fuel flow continuous monitoring system shall be quality assured in accordance with the applicable requirements of 40 CFR Part 75. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C., and 40 CFR Part 72.2 and Part 75]

28. GHG Emission Calculations: Data from the fuel flow continuous monitoring system and the procedure provided in 40 CFR 75.10(a)(3)(ii) along with the Global Warming Potential (GWP) factors as listed in 40 CFR Part 98 Subpart A, Table A-1 amended on November 29, 2013 [78 FR 71948] shall be used to calculate the hourly mass CO_2e emissions in tons per hour (tons/hr). The permittee shall calculate CO_2 emissions using the Equation G-4 from 40 CFR 75 Appendix G and the CH_4 and N_2O emissions using Equation C-8 from 40 CFR 98 Subpart C. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

CEMS REQUIREMENTS FOR ANNUAL EMISSIONS

29. 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

30. 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.]

31. 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

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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.]

32. 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.

    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. In lieu of the fuel sampling and analysis, a certified fuel sulfur analysis from the fuel vendor may be used 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.]

33. 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.].

34. 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]

35. 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.]

36. GHG Emissions Reporting and Recordkeeping: Permittee shall calculate and record, for each CT, the following on a 12-month rolling average basis, in each case corrected to ISO conditions:

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a. *Mass rate*. The 12-month rolling average CO_2e mass emission rate (lbs CO_2e/12-month rolling total) (for each fuel combusted in the previous 12 months) shall be calculated based on the total fuel fired during the prior 12 calendar months using the GWP factors as listed in 40 CFR Part 98 Subpart A, Table A-1 amended on November 29, 2013 [78 FR 71948].

b. *Power Output Rate*. The 12-month rolling gross power output (MWh) (for each fuel combusted in the previous 12 months) shall be calculated based on the total fuel fired, at all times other than startup and shutdown, during the prior 12 calendar.

c. *Rolling Total*. The 12-month rolling total CO_2e mass emission rate shall be divided by the 12-month rolling gross power output rate to determine the lb/MWh rolling average.

[Rules 62-4.070(3), 62-212.400(BACT), F.A.C]

37. GHG Demonstration of Compliance: For demonstrating compliance with the limits specified in **Specific Condition 3.A.11** of this subsection, the permittee shall use the procedures set forth in 40 CFR parts 75 and 98 to determine resulting GHG emissions (as CO_2e) using the GWP factors as listed in 40 CFR Part 98 Subpart A, Table A-1 amended on November 29, 2013 [78 FR 71948]. The permittee shall keep adequate records of these GHG emission calculations. [Rules 62-4.070(3), 62-212.400(BACT), F.A.C]

38. 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 oil-fired turbine hours cumulatively in any one year.}

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B. 2.5 Million Gallon ULSD Fuel Oil Storage Tank (EU ID No. 013)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
013	One 2.5-million gallon Ultralow Sulfur Distillate Fuel Oil Storage Tank

NSPS APPLICABILITY

1. NSPS, Subpart Kb Applicability: Based on the true vapor pressure of ultralow sulfur distillate fuel (< 3.5 kilopascals), the storage tank **is 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 one 2.5-million gallon distillate fuel oil storage tank 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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C. Two 4.79 million MMBtu/hr Natural Gas Heaters (EU ID No. 014)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
014	Two 4.79 MMBtu/hour Natural Gas Heaters

EQUIPMENT

1. Natural Gas Heaters: The permittee is authorized to install, operate, and maintain two natural gas heaters for the purpose of heating the natural gas supply to the combustion turbines. [Application]

PERFORMANCE RESTRICTIONS

2. Authorized Fuel: The natural gas heaters shall fire only natural gas with a maximum fuel sulfur content of 2.0 grains/100 scf. [Application; Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

3. Natural Gas Usage: The combined natural gas usage in the heaters is limited to 56.8 million standard cubic feet of gas per year. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

REGULATORY APPLICABILITY

4. Small Boiler BACT: The natural gas heaters are subject to the requirements of Rule 62-296.406, F.A.C., which includes a determination of the Best Available Control Technology (BACT) for PM and SO_2 emissions. For this project, BACT for PM and SO_2 emissions is determine to be the firing of natural gas with a maximum fuel sulfur content of 2.0 grains/100 scf as the only authorized fuel. [Rule 62-296.406, F.A.C.]

5. NSPS Subpart Dc Applicability: The gas heaters are not subject to NSPS 40 CFR 60, Subpart Dc which applies to Small Industrial, Commercial or Institutional Boilers because they do not meet the 10 MMBtu/hour heat input threshold. [NSPS-Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units].

6. NESHAP Subpart DDDDD Applicability: The facility is considered a major source of HAP, and therefore, the fuel heaters are subject to 40 CFR Part 63 DDDDD. 40 CFR 63.7500 states that if a unit is designed to only burn gas 1 fuels, such as natural gas, it is not subject to emission limits set in Tables 1 and 2, or 11 through 13, or the operating limits in Table 4 of the subpart. However, as described in 40 CFR 63.7540 the units are subject to 5-year tune-up requirements as outlined in Table 3 of Subpart DDDDD. [NESHAP-Subpart DDDDD - National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters]

EMISSIONS STANDARDS

7. BACT Determination: The determination $PM_{10}/PM_{2.5}$ BACT determination for this emissions unit is the requirement that the heaters only fire natural gas with a maximum fuel sulfur content of 2.0 grains/100 scf. Compliance shall be shown by fuel monitoring or vendor certification with regard to the fuel sulfur content. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

8. GHG BACT Determination: The use of highly efficient (>=75%) fuel heaters using good combustion practices and clean burning natural gas is the GHG BACT for the natural gas heaters. In addition, a combined 3,191 TPY CO_2e emissions limit for both heaters, based on a 12-month rolling average, is set as BACT. Compliance with the natural gas usage limit given in **Specific Condition 3.C.3** of this subsection and the combined 3,191 TPY CO_2e heater emissions limit shall be shown by monitoring the monthly fuel flow to each heater and using GWP factors as listed in 40 CFR Part 98 Subpart A, Table A-1 amended on

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November 29, 2013 [78 FR 71948] to determine CO_2e emissions. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

GHG MONITORING AND COMPLIANCE

9. Flow Meter: Permittee shall install, operate, and maintain an operational non-resettable totalizing mass or volumetric flow meter in the fuel line to each natural gas heater to measure fuel use to be recorded monthly and totaled every month for the previous 12 months. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

10. Timer: Permittee shall install, operate, and maintain an operational non-resettable elapsed time meter on the natural gas heaters to record the monthly operational hours and the totaled every month operational hours for the previous 12 months. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

11. Thermal Efficiency: Permittee shall calculate and record the thermal efficiency of each natural gas heater on a monthly basis. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

12. Annual Tune-Ups: To ensure that the natural gas heaters operate at a high efficiency, the Permittee shall perform annual tune-ups as follows:
    a. Inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shut down, but you must inspect each burner at least once every 18 months).
    b. Inspect the flame pattern, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications.
    c. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly

    [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

13. GHG Emissions Calculations: On a monthly basis, the permittee shall use the annual heat input as calculated using the natural gas consumption and elapsed time required by **Specific Conditions 3.C.9 and 3.C.10** of this subsection and data from 40 CFR Part 98, Table C-1 to calculate and record CO_2e emissions from the natural gas heaters on a 12-month rolling average using the Global Warming Potential factors as listed in 40 CFR Part 98 Subpart A, Table A-1 amended on November 29, 2013 [78 FR 71948] and effective on January 1 ,2014. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

NOTIFICATIONS, RECORDS AND REPORTS

14. Notification: Initial notification is required for the natural gas heaters. [40 CFR 60.7]

15. Reporting and Recordkeeping: The permittee shall maintain records of the amount of natural gas used monthly in each heater, the monthly hours of operation of each heater, the calculated monthly thermal efficiency of each heater along with the fuel monitoring or vendor certification records for the sulfur content of the natural gas. Records of the 12-month rolling average of CO_2e emission shall also be maintained. 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. One Nominal 160 hp Emergency Fire Pump Engine (EU ID No. 015)

This section of the permit addresses the following emissions unit.

EU D No.	Emission Unit Description
015	One Nominal 160 hp Emergency Fire Pump Engine (model year 2009 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. DEF 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 (RICE) and is subject to 40 CFR 63, Subpart ZZZZ which apples to RICE located at major or area sources of HAP emissions. 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 160 hp ULSD fuel oil fired emergency fire pump engine. [Applicant Request; Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), 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; Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), 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 in "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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6. Emergency Fire Pump Engine BACT Emission Limits:

Fire Pump Engine (100≤HP<175)	CO (g/kW-hr) [1]	PM (g/kW-hr)	NMHC [2]+NO_X (g/kW-hr)	Diesel Fuel [3] (sulfur)
2009 and later	5.0	0.30	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; Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.; NSPS Subpart IIII, §60.4205]

7. GHG BACT: Following the manufacturer's work practices to maintain engine efficiency is set as BACT for the emergency fire pump engine along with limiting the operating hours to 100 per year, except during emergencies and burning a clean fuel. [Applicant Request and Rules 62-4.130, 62-204.800, 62-210.700(6) and 62-212.400(BACT), F.A.C.]

8. 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]

9. 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]

NSPS AND GHG MONITORING AND COMPLIANCE

10. Timer: Permittee shall install, operate, and maintain an operational non-resettable elapsed time meter on the emergency fire pump engine to recorded monthly operational hours and totaled operational hours for every month for the previous 12 months. [Rules 62-296.406; 62-4.070(3) and 62-210.200(BACT), F.A.C.]

NOTIFICATION, REPORTING AND RECORDKEEPING

11. Notifications Reporting and Recordkeeping: Notifications of 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 160 hp emergency fire pump engine.

12. Additional Reporting: The permittee shall maintain records of the amount of liquid fuel used and the monthly operational hours and totaled operational hours for every month for the previous 12 months. These records shall be submitted to the Compliance Authority on an annual basis or upon request. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

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E. Four FS_6 Circuit Breakers (EU ID No. 016)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
016	Four Circuit Breakers (emit Sulfur hexafluoride (SF_6) a greenhouse gas)

EQUIPMENT

1. Circuit Breakers: The permittee is authorized to install, operate, and maintain four SF_6 circuit breakers for the purpose of electrical system safety. [Application]

EMISSIONS STANDARDS

2. GHG BACT Determination: BACT is set as the use of modern, totally enclosed circuit breakers with leak detection alarms having a threshold of 10%, along with good operational practices. [Rules 62-4.070(3), 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

GHG MONITORING AND COMPLIANCE

3. Requirements:
   a. Continuously monitor and record circuit breakers pressure;
   b. Visually inspect, in accordance with manufacturer's standards, circuit breakers and components on a daily basis ;and
   c. Provide periodic maintenance to the circuit breaks and its components.

   [Rules 62-296.406; 62-4.070(3) and 62-210.200(BACT), F.A.C.]

NOTIFICATION, REPORTING AND RECORDKEEPING

4. Additional Reporting: The permittee shall maintain records of circuit breakers pressure, results of visual inspections and maintenance actions. In addition, records shall be kept of detected leaks to include the cause, duration and corrective actions. These records shall be submitted to the Compliance Authority on an annual basis or upon request. [Rules 62-4.070(3), 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

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F. Natural Gas Piping Components – Fugitive Emissions (EU ID No. 017)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
017	Natural Gas Piping Components – Fugitive GHG Emissions

EQUIPMENT

1. Natural Gas Pipeline Components: The permittee is authorized to install, operate, and maintain natural gas pipeline components to provide fuel to the new peaking CT units. [Application]

EMISSIONS STANDARDS

2. GHG BACT Determination: BACT to minimize GHG fugitive emissions from on-site pipeline and natural gas supply is through a monitoring and repairing program. Additionally, natural gas will be treated with mercaptan for human detection of any odor from leaks. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

GHG MONITORING AND COMPLIANCE

3. Requirements: The pipeline system will be continuously monitored for pressure against alarm set points to identify leaks. Any detected leaks shall be repaired immediately. [Rules 62-4.070(3), 62-210.200 (PTE), 62-210.200 (BACT) and 62-212.400 (PSD), F.A.C.]

NOTIFICATION, REPORTING AND RECORDKEEPING

4. Additional Reporting: The permittee shall maintain records of records of inspections, detected leaks, and repairs (including action taken and duration). These records shall be submitted to the Compliance Authority on an annual basis or upon request. [Rules 62-4.070(3) and 62-212.400(BACT), F.A.C.]

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