Florida Department of Environmental Protection

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PERMITTEE

Florida Power & Light Company (FPL)
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Authorized Representative:
Mr. Randall R. LaBauve, Vice President,
Environmental Services

Air Permit No. 0930117-001-AC
(PSD-FL-434)
Okeechobee Clean Energy Center
Construction of Combined Cycle Unit 1
Expires: December 31, 2020

FACILITY AND LOCATION

This is the final air construction permit, which authorizes construction of Unit 1 of the FPL Okeechobee Clean Energy Center (OCEC). Unit 1 will consist of three natural gas-fired combustion turbine (CT) generator sets and one steam turbine generator, in a combined-cycle configuration. Each of the CTs will have a nominal generating capacity of 350 megawatts (MW), and Unit 1 as a whole will have a nominal net generating capacity of 1,600 MW. Ultra-low-sulfur diesel (ULSD) will be used only as a backup fuel. An auxiliary boiler and several other ancillary pieces of equipment are also included in this project. The OCEC is an electric utilities plant categorized under Standard Industrial Classification No. 4911. The proposed facility is located in the northeastern corner of Okeechobee County, less than a mile from the border with Indian River County. The site can be accessed from Florida Route 60 and 226th Court in Indian River County, by following 226th Court south to the Okeechobee County line. The Universal Transverse Mercator (UTM) coordinates are Zone 17, 520.6 kilometers (km) East, and 3056.7 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 A of Section 4 of this permit. As noted in the Final Determination provided with this final permit, only minor changes and clarifications were made to the draft permit.

STATEMENT OF BASIS

This air pollution construction permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) and by filing a copy of the notice of appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The notice must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Tallahassee, Florida

For:

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

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this final air 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.

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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.

FACILITY DESCRIPTION

The Okeechobee Clean Energy Center (OCEC) is a planned power plant, in Okeechobee County. OCEC Unit 1 will consist of three combustion turbines (CTs) connected to one steam turbine, in a "3-on-1" configuration. Each of the CTs will have a nominal generating capacity of 350 megawatts (MW), and Unit 1 as a whole will have a nominal net generating capacity of 1,600 MW. Ultra-low-sulfur diesel (ULSD) will be used only as a backup fuel. An auxiliary boiler and several other ancillary pieces of equipment are also included in this project.

PROPOSED PROJECT

This project entails the initial construction of OCEC Unit 1 and ancillary equipment. This equipment includes a natural gas-fired auxiliary boiler, a 7 million-gallon ULSD storage tank, emergency generators and a fire pump engine, natural gas heaters, a cooling tower, and approximately 17 circuit breakers. This permit includes a determination of Best Available Control Technology for these emissions units for the following pollutants: nitrogen oxides (NO_X), carbon monoxide (CO), volatile organic compounds (VOC), sulfur dioxide (SO_2), sulfuric acid mist (SAM), particulate matter (PM), PM with aerodynamic diameter of 10 micrograms or less (PM_{10}), PM with aerodynamic diameter of 2.5 micrograms or less ($PM_{2.5}$), and greenhouse gases (GHGs).

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

EU ID No.	Brief Description
001	Unit 1A – One nominal 350 MW combustion turbine with HRSG
002	Unit 1B – One nominal 350 MW combustion turbine with HRSG
003	Unit 1C – One nominal 350 MW combustion turbine with HRSG
004	One nominal 99.8 MMBtu/hr auxiliary boiler
005	One 7 million-gallon ULSD storage tank
006	Three nominal 3,300 kW ULSD emergency generators
007	Two natural gas heaters
008	One nominal 422 hp diesel fire pump engine
009	Two nominal 25 kW propane emergency generators
010	Mechanical draft cooling tower
011	Circuit breakers

REGULATORY CLASSIFICATION

The following federal regulations will apply to the OCEC and this project.

- The proposed 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 proposed facility is not a major source of hazardous air pollutants (HAP).
- The proposed facility has units regulated under Clean Air Act, Title IV, Acid Rain provisions, Phase II.
- The proposed facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The proposed project includes units that may be subject to the Clean Air Interstate Rule (CAIR) or the 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.

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 OCEC Unit 1 Construction Project

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: 3301 Gun Club Road, MSC 7210-1, West Palm Beach, Florida 33406, (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 Dc. NSPS Subpart Dc Requirements for Small Industrial-Commercial-Institutional Steam Generating Units
   g. Appendix KKKK. NSPS Subpart KKKK Requirements for Gas Turbines and Duct Burners;
   h. Appendix TTTT. NSPS Subpart TTTT Requirements for Greenhouse Gas Emissions from Electric Generating Units;
   i. Appendix XS. Semiannual NSPS Excess Emissions Report;
   j. Appendix ZZZZ. NESHAP Requirements for Reciprocating Internal Combustion Engines from 40 CFR 63, Subpart ZZZZ;
   k. Appendix IIII. NSPS Subpart IIII Requirements for Stationary Compression Ignition Internal Combustion Engines; and
   l. Appendix JJJJ. NSPS Subpart JJJJ Requirements for Stationary Spark Ignition Internal Combustion Engines.

4. Applicable Regulations, Forms and Application Procedures: Unless otherwise specified in this permit, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

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

7. Construction and Expiration: The 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 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.

A. Combined Cycle Unit 1 (EU Nos. 001, 002, and 003)

This section of the permit addresses the following emissions units.

EU No.	Emission Unit Description
001	Unit 1A – One nominal 350 MW combustion turbine with HRSG
002	Unit 1B – One nominal 350 MW combustion turbine with HRSG
003	Unit 1C – One nominal 350 MW combustion turbine with HRSG

The CT proposed for the project is the General Electric (GE) 7HA.02 turbine. Each CT will utilize inlet air cooling and wet compression. Emissions from each turbine will be controlled using dry low-NO_X (DLN) combustion and selective catalytic reduction (SCR).

Each combustion turbine generator (CTG) will have a nominal electrical output of 350 MW. Each turbine will be connected to an un-fired heat recovery steam generator (HRSG). Steam generated in the three HRSGs will be routed to a common steam turbine (ST), with a nominal generating capacity of 550 MW. The total nominal electrical generating capacity for Unit 1 is 1,600 MW.

The nominal design heat input rate to each turbine is 3,095.7 MMBtu/hr when firing natural gas, based on an ambient air temperature of 75 degrees Fahrenheit (°F), evaporative cooling and wet compression, 60 percent (%) relative humidity, 14.7 pounds per square inch (psi) pressure, the lower heating value (LHV) of the fuel, and 100% load.

Each HRSG will have a stack height of 149 ft and an inner stack diameter of 25.6 ft. Each stack will be equipped with continuous emissions monitoring systems (CEMS) to measure and record NO_X emissions as well as flue gas oxygen or carbon dioxide content.

{Note: Actual heat input rate varies 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), voltaic organic compounds (VOC), particulate matter ($PM/PM_{10}/PM_{2.5}$), sulfur dioxide and sulfuric acid mist (SO_2 and SAM), and greenhouse gases (GHGs). [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), Subpart KKKK (Standards of Performance for Stationary Gas Turbines), and Subpart TTTT (Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units). See Appendices Subpart A, KKKK, and TTTT 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 Subpart KKKK provisions. The GHG BACT emissions standards are as stringent as, or more stringent than, the limits imposed by the applicable NSPS Subpart TTTT provisions. Some separate reporting and monitoring may be required by the individual subparts. [Rule 62-204.800(8)(b), F.A.C.; and NSPS 40 CFR 60, Subparts A, KKKK, and TTTT]

   {Permitting note: These units are not subject to the NESHAP in 40 CFR 63, Subpart YYYY, for stationary combustion turbines. Subpart YYYY applies only to turbines at major sources of hazardous air pollutants (HAP). However, OCEC will not be a major source of HAP.}

EQUIPMENT DESCRIPTION

3. Combustion Turbines: The permittee is authorized to install, tune, operate, and maintain three GE 7HA.02 CTs with a nominal generating capacity of 350 MW each and an inlet air filtration system with inlet air cooling (i.e. evaporative cooling and wet compression). The CTs will be designed for operation in combined-cycle mode, with one shared steam turbine, and will have dual-fuel capability (natural gas and ULSD fuel oil). The CTs may also operate in simple-cycle mode. [Application 0930117-001-AC; Design]

CONTROL TECHNOLOGY

4. Combustion Technology: The permittee shall install, operate and maintain the dry-low NO_X (DLN) combustion system or its equivalent 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 sufficiently low CO and NO_X values to meet the CO and NO_X limits with the additional SCR control technology described below. 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.]

5. 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, with the addition of SCR. 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.]

6. Selective Catalytic Reduction: The permittee shall install, tune, operate, and maintain an SCR system to control NO_X emissions from each gas turbine when firing either natural gas or distillate fuel oil. The SCR system consists of an ammonia (NH_3) injection grid, catalyst, ammonia storage, monitoring and control system, electrical, piping and other ancillary equipment. The SCR system shall be designed, constructed and operated to achieve the permitted levels for NO_X emissions. The storage of ammonia shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68. [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 hours of operation on natural gas for the three CTs are not restricted (i.e. 8,760 hours per year).
   b. *ULSD Fuel Oil Operation:* ULSD fuel oil may be fired up to the fuel equivalent of 1,500 hours aggregated over the three CTs during any 12-month period, rolled monthly.

      {Permitting note: The fuel equivalent of 1,500 hours of base-load operation is expected to be approximately 33.6 million gallons of 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. The manufacturer's performance curves shall be used for determination of different loads for performance testing as established in **Specific Conditions 16** and **17**. 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. Prohibition on Low-Load Operation: Other than during periods of startup, shutdown, DLN tuning, fuel switching, non-base-load CO stack tests (for compliance with **Specific Condition 16.b** or **17.c**), or

documented malfunctions (as defined in **Specific Condition 22**), the permittee shall not operate any CT at a load less than the load at which compliance with the non-base-load CO limit was demonstrated in the most recent fuel-specific non-base-load CO test (**Specific Condition 16.b** or **17.c**) for that CT, as determined by the performance curves in **Specific Condition 9**. The minimum operating CT load for natural gas operation shall be no less than 30%, and the minimum operating CT load for ULSD operation shall be no less than 50%. [Rule 62-210.200(BACT), F.A.C.]

{Permitting note: Limiting low-load operation prevents CO emissions associated with low turbine loads. According to manufacturer estimates, the minimum operating loads established under this condition will likely be in the vicinity of 30% CT load for gas and 50% CT load for ULSD.}

EMISSIONS AND TESTING REQUIREMENTS

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

Pollutant		Emission Standard [a]	Basis	Compliance Method [b]	Averaging Time
NO_X	Gas	2.0 ppmvd @15% O_2	Primary BACT (Normal operating conditions)	CEMS	24-hr block avg.
		15.0 ppmvd @15% O_2 (for turbine loads ≥ 75%)	NSPS KKKK, Secondary BACT [c]		30-operating-day rolling avg. [d]
	Oil	8.0 ppmvd @15% O_2	Primary BACT		24-hr block avg.
		42.0 ppmvd @15% O_2 (for turbine loads ≥ 75%)	NSPS KKKK, Secondary BACT		30-operating-day rolling avg.
	Gas or oil	96.0 ppmvd @15% O_2 (for turbine loads < 75%)	NSPS KKKK, Secondary BACT		30-operating-day rolling avg.
CO	Gas	4.3 ppmvd @15% O_2 (for turbine loads ≥ 90%)	BACT	Initial and annual stack tests	Three 1-hr runs
		7.1 ppmvd @15% O_2 (for turbine loads < 90%)			
	Oil	10.0 ppmvd @15% O_2 (for turbine loads ≥ 90%)		Initial stack test, subsequent tests in accordance with Specific Condition **17.c**.	
		13.6 ppmvd @15% O_2 (for turbine loads < 90%)			
$PM/PM_{10}/PM_{2.5}$ [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 and SAM		2.0 gr. sulfur/100 SCF natural gas 0.0015% sulfur fuel oil	BACT	Fuel Record Keeping	N/A
GHGs	Gas	850 lb/MWh	Primary BACT	CEMS or fuel-use monitoring[g] (40 CFR 75)	12-operating-month rolling avg.[h]
	Oil	1,210 lb/MWh			
	Gas or oil	1,000 lb/MWh	NSPS TTTT, Secondary BACT		

Pollutant		Emission Standard [a]	Basis	Compliance Method [b]	Averaging Time
VOC	Gas	1.0 ppmvd @15% O_2	BACT	Initial stack test, CO as proxy thereafter	Three 1-hr runs
	Oil	2.0 ppmvd @15% O_2			

a. NO_X, CO, and VOC concentration emission standards are expressed in parts per million by volume, dry, corrected to 15 percent oxygen, abbreviated as ppmvd @15% O_2.
b. CEMS means continuous emissions monitoring system.
c. Secondary BACT emission limits are alternative emission limits for specified modes of operation, pursuant to **Specific Conditions 22 and 23**. Demonstrating compliance with the NO_X limit in Table 1 of NSPS Subpart KKKK limit shall be sufficient for demonstrating compliance with the Secondary NO_X BACT limit.
d. The composite NSPS KKKK NO_X emission limit for periods during which multiple NO_X emission standards apply shall be determined in accordance with 40 CFR 60.4380(b)(3).
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. See **Specific Condition 25** for Alternate VE standard.
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, at normal operating conditions. Visible emissions during startups, shutdowns, fuel switches, DLN tuning, and malfunctions shall not exceed 10% opacity, except for up to six 6-minute average periods during a calendar day, which shall not exceed 20% opacity.
g. GHG monitoring shall be in accordance with 40 CFR 75, which includes options for continuous monitoring of fuel use combined with the use of emissions factors for GHGs, or the use of a continuous emissions monitor for CO_2. Calculations of CO_2e emissions shall use the 100-year global warming potential values listed in Table A-1 to Subpart A of 40 CFR 98 (e.g. 1 for CO_2, 25 for CH_4 and 298 for N_2O). The GHG BACT limit applies to the 3-on-1 combined cycle unit as an aggregate limit. The Primary GHG BACT limit applies during all operation, except the conditions enumerated in **Specific Condition 22**. The Primary GHG BACT standard with which compliance will be demonstrated is a weighted average of the gas and oil standards, based on the amount of generation using each of the fuels (See **Specific Condition 15**). This composite standard will be no greater than 1,000 lb/MWh. The Secondary GHG BACT limit applies for all operation, including the conditions enumerated in **Specific Condition 22**. Compliance with the Secondary GHG BACT limit is demonstrated through compliance with NSPS Subpart TTTT.
h. The NSPS Subpart TTTT GHG standard applies during all periods of operation.
   - The Subpart TTTT limit of 1,000 lb/MWh applies if the CT supplies more than its design efficiency times its potential electric output as net-electric sales on both a 12-operating month and 3-year rolling average basis, and combusts more than 90% natural gas on a 12-operating-month rolling average basis. *{Permitting note: This is the most likely operating scenario for a base-load unit fueled primarily with natural gas.}*
   - If the CT supplies its design efficiency times its potential electric output or less as net-electric sales on either a 12-operating-month or a 3-year rolling average basis, and combusts more than 90% natural gas on a 12-operating-month rolling average basis, the NSPS GHG limit is given in Table 2 of Subpart TTTT. *{Permitting note: This limit is most likely to apply to simple-cycle or peaking units and is unlikely to apply to a combined-cycle unit.}*
   - If the CT combusts less than 90% or less natural gas on a heat input basis on a 12-operating-month rolling average basis, the GHG limit is given in Table 2 of Subpart TTTT and 40 CFR 60.5525.

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

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
3A	Determination of Oxygen and Carbon Dioxide Concentrations in Emissions from Stationary Sources
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

Method	Description of Method and Comments
18 or 25A	Volatile Organic Compounds by Gas Chromatography, or Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer

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]

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. If an emissions unit is tested at less than the testing capacity, another emissions test shall be conducted and completed no later than 60 days after the emissions unit operation exceeds 110% of the capacity at which its most recent emissions test was conducted. [Rule 62-297.310(3), F.A.C.]

15. Composite GHG Primary BACT Standard: The composite Primary GHG BACT standard with which the permittee is required to show compliance for OCEC Unit 1 (EU Nos. 001, 002, and 003, considered collectively) consists of a weighted average of the natural gas and ULSD standards, weighted by the generation from each fuel over the appropriate compliance period:

$$Composite\ Standard = \frac{MWh_{gas}}{Total\ MWh} \times Limit_{gas} + \frac{MWh_{ULSD}}{Total\ MWh} \times Limit_{ULSD}$$

where MWh_{gas} = Gross output from gas firing for compliance period,
MWh_{ULSD} = Gross output from ULSD firing for compliance period,
$Total\ MWh$ = Total gross output for compliance period = $MWh_{gas} + MWh_{ULSD}$
$Limit_{gas}$ = GHG BACT limit for natural gas operation = 850 lb / MWh, and
$Limit_{ULSD}$ = GHG BACT limit for ULSD operation = 1,210 lb / MWh.

The Composite Standard may be no greater than 1,000 lb / MWh, regardless of this formula. This standard is on a basis of a 12-operating-month rolling average, rolled monthly.

[Rule 62-210.200(BACT), F.A.C.]

16. Initial Compliance Demonstrations:

a. *Non-GHG Pollutants, Base Load:* Initial compliance stack tests while firing natural gas and fuel oil shall be conducted within 60 days after achieving the maximum production rate on that fuel, but not later than 180 days after the initial startup on that fuel. In accordance with the test methods specified in this permit, the CT shall be tested to demonstrate initial compliance with the emission rate standards for NO_X, 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 particulate tests.

b. *Carbon Monoxide, Non-Base Load:* Initial stack tests for non-base-load CO while firing natural gas and fuel oil shall be conducted within 60 days after achieving the maximum production rate on that fuel, but not later than 180 days after the initial startup on that fuel. The tests for non-base-load CO shall be conducted at a CT load below 90% for both gas firing and ULSD firing. The minimum load at which compliance with the applicable CO limit in **Specific Condition 11** is demonstrated in this test shall determine the fuel-specific minimum operating load for that CT, pursuant to **Specific Condition 10**. If measured CO emissions in the non-base-load stack test are greater than the CO limit, this shall not constitute a failed stack test; rather, the permittee shall conduct non-base-load testing until the load at which compliance is demonstrated can be determined. *{Permitting note: The non-base-load CO test*

will not be used to define the facility's "testing capacity" for the purposes of Rule 62-297.310(3), F.A.C., or ***Specific Condition 14****.}*

c. *GHGs:* Within 60 days after achieving the maximum production rate on natural gas for the entire combined-cycle unit, the unit shall demonstrate achievement of an emissions rate of 800 lb CO_2 per MWh firing natural gas at base load, corrected to ambient conditions of 85 °F and 55% relative humidity. This initial performance demonstration shall consist of a continuous operating period of no less than two hours. The permittee may use CO_2 monitoring system data for this demonstration. *{Permitting note: After achievement of this initial GHG benchmark rate, this GHG limit shall no longer apply, and this limit will not be included in the Title V operating permit for this facility.}*

[Rules 62-4.070, 62-210.200(BACT) and 62-297.310(8)(b), F.A.C. and 40 CFR 60.8]

17. Subsequent Compliance Testing:

a. *Visible Emissions and Base-Load CO:* The annual compliance test for base-load (i.e. ≥ 90% CT load) CO and visible emissions shall be conducted while firing natural gas. Base-load CO and visible emissions tests 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 calendar year. A base-load CO and visible emissions test shall be performed while firing fuel oil prior to each renewal of the facility's Title V operation permit if fuel oil was fired for more than 400 hours during any calendar year during the previous five-year period prior to the Title V application renewal date.

b. *VOC:* After initial compliance with the VOC standards are demonstrated, further compliance tests for VOC emissions are not required. Compliance with the CO standards indicates efficient combustion and low VOC emissions. The Department retains the right to require VOC testing if CO limits are exceeded or for the reasons listed in Rule 62-297.310(8)(c), F.A.C., Special Compliance Tests.

c. *Non-Base-Load CO:* Tests for non-base-load (i.e. below 90% CT load) CO for natural gas operation shall be conducted annually. Tests for non-base-load CO for ULSD operation shall be conducted on each combustion turbine that is fired with fuel oil for more than 400 hours during the calendar year, and prior to each renewal of the facility's Title V operation permit if fuel oil was fired for more than 400 hours during any calendar year during the previous five-year period prior to the Title V application renewal date. The minimum load at which compliance with the applicable CO limit in **Specific Condition 11** is demonstrated in the non-base-load CO test shall determine the fuel-specific minimum operating load for that CT, pursuant to **Specific Condition 10**. If measured CO emissions in the non-base-load stack test are greater than the CO limit, this shall not constitute a failed stack test; rather, the permittee shall conduct non-base-load testing until the load at which compliance is demonstrated can be determined. *{Permitting note: The non-base-load CO test will not be used to define the facility's "testing capacity" for the purposes of Rule 62-297.310(3), F.A.C., or* ***Specific Condition 14****.}*

{Permitting note: Consistent with Rule 62-297.310(b)2, F.A.C., for the purposes of an air operation permit renewal, the owner or operator may utilize the most recent emissions test, provided such test occurred within the term of the current operation permit.}

[Rules 62-4.070, 62-210.200(BACT), and 62-297.310(8)(a)4, F.A.C.]

18. 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.]

19. 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(8)(c), F.A.C.]

PRIMARY AND SECONDARY BACT APPLICABILITY

*{Permitting Note: The following conditions apply only to the State Implementation Plan (SIP)-based emissions standards in **Specific Condition 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.}*

20. 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.]

21. 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.]

22. Demonstration of Compliance with Primary NO_X and GHG BACT: The Primary NO_X and GHG BACT limits apply at all times, except during the following operating conditions:
    a. *Steam Turbine Cold Startup:* During a cold startup of the steam turbine, the Primary NO_X and GHG BACT emission limits do not apply to any CT/HRSG system, for no more than 8 hours during any 24-hour period. A cold startup of the steam turbine is defined as startup of the 3-on-1 combined cycle system following a shutdown of the steam turbine lasting at least 48 hours.

    {Permitting note: During a cold startup of the steam turbine, each CT/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the steam turbine and prevent thermal metal fatigue or equipment materials differential expansion damage. Note that shutdowns and documented malfunctions are separately regulated in accordance with the requirements of this condition.}
    b. *CT/HRSG System Cold Startup:* During a cold startup of a CT/HRSG system, the Primary NO_X and GHG BACT emission limits do not apply, for no more than 4 hours during any 24-hour period. A cold startup of the CT/HRSG system is defined as a startup after the pressure in the high-pressure steam drum falls below 450 psig (pounds per square inch, gauge pressure) for at least a one-hour period.
    c. *CT/HRSG System Warm Startup:* During a warm startup of a CT/HRSG system, the Primary NO_X and GHG BACT emission limits do not apply, for no more than 2 hours during any 24-hour period. A warm startup of the CT/HRSG system is defined as a startup after the pressure in the high-pressure steam drum is above 450 psig.
    d. *Shutdown of Combined-Cycle Operation:* During the shutdown of combined cycle operation, the Primary NO_X and GHG BACT emission limits do not apply to any CT/HRSG system, for no more than 3 hours during any 24-hour period.
    e. *CT/HRSG System Shutdown:* During the shutdown of a CT/HRSG system, the Primary NO_X and GHG BACT emissions limits do not apply to that CT/HRSG system, for no more than 2 hours during any 24-hour period.

f. *Fuel Switching:* During a fuel switch, the Primary NO_X and GHG BACT emission limits do not apply, for no more than 2 hours per fuel switch, up to 4 hours during any 24-hour period, for any CT/HRSG system.

g. *DLN Tuning:* The Primary NO_X and GHG BACT emission limits do not apply during a DLN tuning session and manufacturer required Full-Speed No-Load Tests (FSNL) trip tests, 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.

h. *Documented Malfunction:* The Primary NO_X and GHG BACT emission limits do not apply during a documented malfunction, for no more than 2 hours in any 24-hour period. To qualify as a "documented malfunction," the malfunction must be documented within one working day of detection by contacting the Compliance Authority by telephone, facsimile transmittal, or electronic mail. The permittee shall report to the Department the nature, extent, and duration of the malfunction, and the actions taken to correct the problem.

Emissions during the startup, shutdown, fuel switching, DLN tuning and documented malfunction events listed above are not subject to the Primary BACT standards for NO_X or GHGs. These are considered separate events, and each event may occur independently within any 24-hour period ("any 24-hour period" means a calendar day, midnight to midnight). Data from the NO_X and CO_2 CEMS (or fuel use monitor) collected during the events described above will not be used to demonstrate compliance with the Primary BACT emission limits for NO_X and GHGs.

Data from the NO_X and CO_2 CEMS (or fuel use monitor if a CO_2 CEMS is not used) collected during the operating conditions described above, during which the Primary NO_X and GHG BACT limits do not apply, will be used to demonstrate compliance with the Secondary NO_X and GHG BACT emission limits at all times, as described in **Specific Conditions 11 and 23**. All valid emissions data (including data collected during startups, shutdowns, 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. Secondary NO_X and GHG BACT Emission Limits: During the operating conditions listed in **Specific Condition 22**, the permittee shall comply with the Secondary NO_X and GHG BACT limits specified in **Specific Condition 11**. Demonstrating compliance with the NO_X limit in NSPS Subpart KKKK at all times shall be sufficient for demonstrating compliance with the Secondary NO_X BACT limit. Demonstrating compliance with the GHG limit in NSPS Subpart TTTT at all times shall be sufficient for demonstrating compliance with the Secondary GHG BACT limit. [Rule 62-210.200(BACT), F.A.C., and 40 CFR 60, Subparts KKKK and TTTT]

    {Permitting Note: Compliance with the Secondary NO_X and GHG BACT Emission Limits ensures continuous compliance with an applicable SIP emission limit.}

24. GHG BACT Applicability: The Primary GHG BACT limit applies to the 3-on-1 combined-cycle unit as a whole. Other than during the operating conditions listed in **Specific Condition 22**, all emissions and generation from a CT are included when demonstrating compliance with the Primary GHG BACT limit, regardless of whether the CT is operated in 3-on-1, 2-on-1, 1-on-1, or simple-cycle mode. For the operating scenario in which one CT is subject to the Primary GHG BACT limit and another CT is not, electric generation from the steam turbine generator will be attributed to the CTs in accordance with 40 CFR 75. [Rule 62-210.200(BACT), F.A.C.]

25. Alternate Visible Emissions Standard: Visible emissions due to startups, shutdowns, fuel switches, and malfunctions shall not exceed 10% opacity, except for up to six 6-minute averaging periods during a calendar day per CT, which shall not exceed 20% opacity. [Rule 62-210.200(BACT)]

26. BACT Work Practice Standards for Startup and Shutdown:

    a. *Startup on Gas*: The permittee shall fire only natural gas during all periods of CT/HRSG startup, up to the minimum operating CT load established under **Specific Condition 10**, except for periods of gas curtailment or periods during which gas is not reasonably available, or for purposes of testing and maintenance. The permittee shall maintain documentation of all startups on ULSD, including the reason for starting on oil, for a period of five years and shall make this documentation available to the Department upon request. [Rule 62-210.200 (BACT)]

    b. *Manufacturer-Recommended Startup and Shutdown Procedures*: The permittee shall follow the manufacturer's recommended operating procedures for startup and shutdown. All personnel responsible for startup or shutdown of equipment shall be familiar with these procedures. For each operator responsible for startup or shutdown of these turbines, the permittee shall document that the operator has been trained in the manufacturer's recommended procedures for startup and shutdown. The permittee shall make this documentation available to the Department upon request. [Rule 62-210.200 (BACT)]

    {Permitting note: These BACT work practice standards provide an emissions limitation on all pollutants during periods of startup and shutdown.}

27. 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

28. 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]

29. 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]

30. CEMS Data Requirements for BACT Standards:

    *{Permitting Note: The following conditions apply only to the SIP-based NO_X emissions standards in **Specific Condition 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 (where the unit operates for more than one quadrant of an hour). 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 any 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. *Data Collection:* Each CEMS shall monitor and record emissions during all operations including episodes of startup, shutdown, malfunction, DLN tuning, and fuel switches.

f. *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.]

31. <u>GHG BACT and NSPS Subpart TTTT Monitoring Requirements</u>:

a. System Requirements: The permittee shall install and certify monitoring systems required for quantifying CO_2 emissions from each CT in accordance with the applicable requirements in 40 CFR Part 75. Consistent with 40 CFR 75.4(b), all applicable certification tests shall be completed within 180 calendar days after the date the unit commenced commercial operation (as defined in 40 CFR 72.2). Following initial certification, the CO_2 continuous measurement systems shall be quality assured in accordance with the applicable requirements in 40 CFR Part 75. The CO_2 continuous measurement system shall be capable of producing hourly determinations of CO_2 mass emissions in tons per hour.

b. The permittee shall submit an initial monitoring plan that identifies the methodology by which CO_2 mass emissions will be continuously monitored. The permittee shall submit this monitoring plan no later than 21 days prior to the initial certification tests required in **Specific Condition 31.a**.

c. The permittee shall provide notifications as specified in 40 CFR 75.61 for any event related to the continuous measurement of CO_2.

d. The permittee shall measure and record, for each CT, the following data on an hourly basis:

i. Gross energy output (MW)

ii. CO_2 mass emissions (tons or pounds)

iii. Fuel heat input (MMBtu; also gallons of ULSD)

iv. Type of fuel burned (natural gas or ULSD)

[Application 0930117-001-AC, 40 CFR 60.5535, and Rule 62-210.200(BACT), F.A.C.]

CEMS AND CO_2 MONITOR REQUIREMENTS FOR ANNUAL EMISSIONS

32. CEMS and CO_2 Monitor Annual Emissions Requirement: The owner or operator shall use data from the NO_X CEMS and CO_2 monitoring system 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

33. 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.]

34. 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.]

35. 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. 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), 62-4.160(15), and 62-210.200(BACT), F.A.C.]

36. 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(9)(c), F.A.C. and in Appendix D of this permit. Additionally, each report for tests of non-base-

load CO shall clearly state the new fuel-specific minimum operating load that is being established as a result of the test. [Rule 62-297.310(8), F.A.C.].

37. 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 one working day of the following: 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 and GHG emissions in excess of the BACT permit standards following the NSPS format in 40 CFR 60.7(c), Subpart A. The 12-month rolling average values of GHG emissions subject to the Primary GHG BACT standard, for the three months concluding in the reporting period, shall be included in the report. In addition, the report shall summarize the CO_2 and 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]

38. 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, F.A.C. Annual operating reports shall be submitted to the Compliance Authority by April 1st of each year. [Rule 62-210.370(2), F.A.C.]

B. Auxiliary Boiler (EU No. 004)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
004	One nominal 99.8 MMBtu/hr auxiliary boiler

NSPS APPLICABILITY

1. NSPS, Subpart Dc Applicability: The 99.8 MMBTU/hr (by higher heating value) auxiliary boiler is subject to all applicable requirements of 40 CFR 60, Subpart Dc which applies to Small Industrial, Commercial, or Institutional Boilers. Specifically, each emission unit shall comply with 40 CFR 60.48c Reporting and Recordkeeping Requirements. [Application 0930117-001-AC; 40 CFR 60.48c]

EQUIPMENT SPECIFICATIONS

2. Equipment: The permittee is authorized to construct, operate, and maintain one auxiliary boiler with a maximum design heat input of 99.8 MMBtu/hr. This boiler may be used to provide steam during startups and shutdowns of the combined cycle unit or its steam turbine. The boiler shall include low-NO_X burners designed to achieve NO_X emissions less than 0.05 lb/MMBTU and CO emissions less than 0.08 lb/MMBtu. [Application 0930117-001-AC; Rules 62-210.200(PTE) and 62-212.400(BACT), F.A.C.]

3. Fuel: The auxiliary boiler may burn only natural gas, with a sulfur content less than 2.0 gr./100 scf. [Application 0930117-001-AC; Rule 62-210.200(BACT and PTE), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

4. Hours of Operation: The permittee may operate this unit no more than 2,000 hours per calendar year. [Application 0930117-001-AC; Rule 62-210.200(BACT and PTE), F.A.C.]

5. Auxiliary Boiler BACT Emissions Limits:

NO_X	CO	SO_2, SAM, $PM/PM_{10}/PM_{2.5}$
0.05 lb/MMBtu	0.08 lb/MMBtu	2 gr. S/100 scf natural gas and 10% Opacity

*{Permitting note: The limit and testing requirements for CO also serve as a proxy for VOC. The limits in this table, plus the design and fuel restrictions in **Specific Conditions 2 and 3**, serve as continuous emissions limitations for all pollutants.}*

[Rule 62-210.200(BACT), F.A.C.]

6. Initial Testing Requirements: The boiler shall be tested to demonstrate initial compliance with the emission standards for CO, NO_X, and visible emissions. 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 combined cycle unit. As an alternative to testing for CO and NO_X emissions, a manufacturer certification of emissions characteristics for CO and NO_X that are at least as stringent as the BACT values can be used to fulfill CO and NO_X testing requirements. [Rules 62-4.070, 62-210.200(BACT), and 62-297.310(8)(a), F.A.C.]

7. Subsequent Testing Requirements: The permittee shall conduct an annual compliance test for visible emissions. Compliance tests for NO_X and CO shall be conducted prior to each renewal of the facility's Title V operating permit, however no NO_X or CO test will be required if the unit is certified by the manufacturer to meet the NO_X and CO BACT limits. The Department retains the right to require CO or NO_X testing if visible emission limits are exceeded or for the reasons listed in Rule 62-297.310(8)(c), F.A.C., Special Compliance Tests. [Rules 62-4.070, 62-210.200(BACT), and 62-297.310(8)(a)4, F.A.C.]

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 Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of Carbon Monoxide Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}

NOTIFICATION, REPORTING AND RECORDS

9. Usage and Natural Gas Records: The permittee shall maintain records of the hours of operation of the boiler, the amount of natural gas used in the auxiliary boiler, and the sulfur content of the natural gas used in the auxiliary boiler. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rule 62-4.070(3), F.A.C.]

10. Notification: Initial notification is required for the auxiliary boiler. [40 CFR 60.7, 40 CFR 60.48c and Rule 62-204.800(8)(b) F.A.C.]

C. One 7 Million-Gallon ULSD Storage Tank (EU No. 005)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
005	One nominal 7 million-gallon ULSD 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 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 0930117-001-AC; 40 CFR 60.110b(b)]

EQUIPMENT SPECIFICATIONS

2. Equipment: The permittee is authorized to construct, operate, and maintain one nominal 7 million-gallon distillate fuel oil storage tanks to provide fuel oil emission units resulting from this project or to other units on the site. The tank may include pressure relief valves and vacuum relief valves, or an internal floating roof to minimize VOC emissions. [Application 0930117-001-AC; Rule 62-212.400(10)(BACT), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

3. Hours of Operation: The hours of operation are not restricted (8,760 hours per year). [Application 0930117-001-AC]

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 manufacturer's 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]

D. Three Nominal 3,100 kW Emergency Generators (EU No. 006)

This section of the permit addresses the following emissions unit.

EU ID No.	Emission Unit Description
006	Three nominal 3,300 kW ULSD emergency generators

NSPS AND NESHAP APPLICABILITY

1. NSPS, Subpart IIII Applicability: The 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)80., F.A.C.]

2. NESHAP, Subpart ZZZZ Applicability: The emergency generators are Stationary Reciprocating Internal Combustion engines located at an area 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 three nominal 3,300 kW ULSD fuel oil fired emergency generators. [Application 0930117-001-AC; 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 (0.0015%) by weight or less. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.
   [Application 0930117-001-AC; Rule 62-210.200(BACT and 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 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.

[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.

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

7. Emergency Generators Testing Requirements: The unit shall be stack tested to demonstrate initial compliance with the emission standards in **Specific Condition 6**. 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 3,300 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 and upon request. [Rule 62-4.070(3), F.A.C.]

E. Two Natural Gas Heaters (EU No. 007)

This section of the permit addresses the following emissions unit.

ID No.	Emission Unit Description
007	Two natural gas heaters

EQUIPMENT SPECIFICATIONS

1. Equipment: The permittee is authorized to construct, operate, and maintain two natural gas heaters with a design heat input less than 10 MMBtu/hr, by higher heating value. [Application 0930117-001-AC; Rule 62-210.200(PTE), F.A.C.]

2. Fuel: The natural gas heaters may burn only natural gas, with a sulfur content less than 2.0 gr./100 scf. [Application 0930117-001-AC; Rule 62-210.200(BACT and PTE), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

3. Hours of Operation: The hours of operation for this unit are unrestricted (i.e. 8,760 hours per year). However, the two heaters may not be operated simultaneously. [Application 0930117-001-AC; Rule 62-210.200(BACT and PTE), F.A.C.]

4. Natural Gas Heaters BACT Emissions Limit: The natural gas heaters shall have a NO_X emission design value of less than 0.1 lb/MMBtu. [Application 0930117-001-AC; 62-212.400(BACT), F.A.C.]

NOTIFICATION, REPORTING AND RECORDS

5. Usage and Natural Gas Records: The permittee shall maintain records of the hours of operation of the natural gas heaters, the amount of natural gas used in the heaters, and the sulfur content of the natural gas used in the heaters. These records shall be submitted to the Compliance Authority on an annual basis and upon request. [Rule 62-4.070(3), F.A.C.]

F. One Nominal 422-hp Emergency Fire Pump Engine (EU ID No. 008)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
008	One Nominal 422-hp Emergency Fire Pump Engine (model year 2009 or later)

NSPS AND NESHAP APPLICABILITY

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)80., F.A.C.]

2. NESHAP, Subpart ZZZZ Applicability: The emergency fire pump engine is a Stationary Reciprocating Internal Combustion engine located at an area 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 422-hp ULSD fuel oil fired emergency fire pump engine. [Applicant Request; Rules 62-210.200(BACT) and 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 (0.0015%) by weight or less. The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent. [Application 0930117-001-AC; Rules 62-210.200(BACT) and 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 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.

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

6. Emergency Fire Pump Engine BACT Emission Limits:

Fire Pump Engine (225≤kW<450 or 300≤hp<600)	**CO** (g/kW-hr) [1]	**PM** (g/kW-hr)	**NMHC [2]+NO_X** (g/kW-hr)	**Diesel Fuel [3]** (sulfur)
2009 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

[Rules 62-210.200(BACT) and 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 in **Specific Condition 6**. 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 emergency fire pump engine.

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.]

G. Two Nominal 25 kW Propane Emergency Generators (EU ID No. 009)

This section of the permit addresses the following emissions unit.

EU ID No.	Emission Unit Description
009	Two nominal 25 kW propane emergency generators

NSPS AND NESHAP APPLICABILITY

1. NSPS, Subpart JJJJ Applicability: The propane emergency generators are Stationary Spark Ignition Internal Combustion Engines (Stationary ICE) and are subject to 40 CFR 60, Subpart JJJJ. The applicant shall comply with 40 CFR 60, Subpart JJJJ 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 JJJJ - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and Rule 62-204.800(8)(b)81., F.A.C.]

2. NESHAP, Subpart ZZZZ Applicability: The propane emergency generators are Stationary Reciprocating Internal Combustion engines located at an area 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 JJJJ, Subpart ZZZZ only requires that the emergency generator meet the requirements of 40 CFR 60, Subpart JJJJ. 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 two nominal 25 kW propane-fired emergency generators. These may be used for emergency power at the hurricane shelter. [Application 0930117-001-AC; Rule 62-210.200(PTE), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

4. Fuel Specifications: The generators shall burn propane or liquefied petroleum gas (LPG). [Application 0930117-001-AC; Rule 62-210.200(PTE), F.A.C.]
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 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.

[Rule 62-210.200(PTE), F.A.C.; NSPS Subpart JJJJ, §60.4243(d)]

6. Emergency Propane Generator BACT Emission Limits:

Propane Emergency Engines (Between 25 HP and 130 HP)	**CO** (g/HP-hr)	**NMHC + NO_X** (g/HP-hr)
2009 and later	387	10

[Rule 62-212.400(BACT), F.A.C.; NSPS Subpart JJJJ, §60.4233(d)]

7. Emergency Generators Testing Requirements: The unit shall be stack tested to demonstrate initial compliance with the emission standards in **Specific Condition 6**. 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 JJJJ) values and the use of propane or LPG can be used to fulfill this requirement.
[Rule 62-297.310(7)(a)1, F.A.C.; 40 CFR 60.8 and NSPS Subpart JJJJ, §60.4243 and §60.4244]

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
25A	Method for Determining Gaseous Organic Concentrations (Flame Ionization)

[NSPS Subpart IIII, §60.4244]

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 JJJJ, §60.4245, for the two emergency propane generators.

G. Two Nominal 25 kW Propane Emergency Generators (EU ID No. 009)

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

H. Mechanical Draft Cooling Tower (EU ID No. 010)

This section of the permit addresses the following emissions unit.

EU No.	Emission Unit Description
010	Mechanical draft cooling tower

EQUIPMENT SPECIFICATIONS

1. Mechanical Draft Cooling Tower: The permittee is authorized to install one mechanical draft cooling tower with the following nominal design characteristics: 30 cells; 51.5 feet high; circulating water flow rate of 465,815 gallons per minute; and a drift rate of no more than 0.0005%. [Application 0930117-001-AC; Rule 62-212.400(10)(BACT), F.A.C.]

EMISSIONS AND PERFORMANCE REQUIREMENTS

2. Drift Rate: Within 60 days of commencing commercial operation, the permittee shall submit certification to the Department that the cooling tower was constructed to achieve the specified drift rate of no more than 0.0005 percent of the circulating water flow rate. [Rule 62-212.400(10)(BACT), F.A.C.]

HOURS OF OPERATION

3. Unrestricted Hours of Operation: The hours of operation are not restricted. [Application 0930117-001-AC]

I. Circuit Breakers (E.U. No. 011)

This section of the permit addresses the following emissions unit:

EU No.	Emission Unit Description
011	Circuit breakers

EQUIPMENT SPECIFICATIONS

1. Equipment: The permittee is authorized to construct, operate, and maintain approximately 17 circuit breakers containing sulfur hexafluoride (SF_6). The circuit breakers must have a manufacturer-guaranteed SF_6 leak rate of no more than 0.5% per year. The circuit breakers must be equipped with leakage detection systems and alarms. [Application 0930117-001-AC and Rule 62-210.200(BACT), F.A.C.]

CIRCUIT BREAKER MONITORING PLAN

2. Monitoring Plan Requirements: Within 180 days after the circuit breakers are placed into service, the permittee shall submit to the Department a circuit breaker monitoring plan detailing the number of circuit breakers installed and procedures for detecting leaks from the circuit breakers and expected remedial courses of action after leaks are detected. [Application 0930117-001-AC and Rule 62-210.200(BACT), F.A.C.]

HOURS OF OPERATION

3. Unrestricted Hours of Operation: The hours of operation are not restricted. [Application 0930117-001-AC]