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PERMITTEE

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Authorized Representative:
Martin Drango, Citrus County Combined Cycle General Manager

Air Permit No. 0170004-055-AC
Permit Expires: December 31, 2019
Minor Air Construction Permit
Citrus County Combined Cycle Project
Citrus County, Florida

PROJECT

This is the final air construction permit, which authorizes revisions to the initial air construction permit (Permit No. 0170004-047-AC) for the Citrus County Combined Cycle project. This permit replaces the original air construction permit. The proposed work will be conducted adjacent to the existing Crystal River Energy Center, which is an electric power plant categorized under Standard Industrial Classification No. 4911. The existing facility is located in Citrus County at 14385 North Access Road in Crystal River, Florida. The UTM coordinates are Zone 17, 336.865 kilometers (km) East and 3205.690 km North.

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

STATEMENT OF BASIS

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

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

Executed in Tallahassee, Florida

David Lyle Read, P.E.
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For: Syed Arif, P.E., Program Administrator
Office of Permitting and Compliance
Division of Air Resource Management

CERTIFICATE OF SERVICE

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

Martin Drango, Duke Energy Florida, LLC: martin.drango@duke-energy.com
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Clerk Stamp

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

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FACILITY DESCRIPTION

The DEF Crystal River Energy Complex (CREC) currently consists of four fossil fuel steam generating (FFSG) units with electrostatic precipitators; two natural draft cooling towers for FFSG Units 4 and 5; helper mechanical cooling towers for FFSG Units 1, 2 and decommissioned nuclear Unit 3; coal, fly ash, and bottom ash handling facilities; and relocatable diesel fired generators. There are several miscellaneous unregulated/insignificant emissions units and/or activities.

PROPOSED PROJECT

The original air construction permit for the Citrus Combined Cycle Project (CCCP) was issued in December 2014. The CCCP consists of two nominal 820 megawatts (MW) natural gas-fueled combined cycle power blocks designated as CCCP Units 1 and 2. The project includes retirement of CREC coal-fueled Units 1 and 2 in conjunction with operation of the CCCP.

Each power block will consist of: two natural gas-fueled nominal 270 MW Mitsubishi Power Systems (MPS) 501GAC combustion turbine-electric generators (CTGs) with (optional) inlet chillers; two heat recovery steam generators (HRSGs) equipped with natural gas-fueled duct burners and selective catalytic reduction (SCR) reactors; two 180-foot exhaust stacks; and a nominal 280 MW steam turbine electric generator (STG).

Ancillary equipment includes: an auxiliary boiler; two ultra-low sulfur diesel (ULSD) fueled emergency generators; one ULSD-fueled emergency firewater pump engine; two mechanical draft cooling towers; and two (optional) CTG inlet chiller cooling towers. Details of the equipment to be installed are listed below.

This project makes minor revisions to the original air construction permit for the Citrus Combined Cycle Project, Permit No. 0170004-047-AC, as administratively corrected by Permit No. 0170004-051-AC. These revisions include a decrease in the capacity of the auxiliary boiler, a decrease in the capacity of the fire pump engine, and the removal of two proposed dew point heaters. Also included are small revisions related to the startup of the new units.

The Citrus Combined Cycle project will add the following emissions units (EU) to the facility.

EU No.	Emission Unit Description
051	CCCP Unit 1A – One nominal 270 MW CTG with duct-fired-HRSG
052	CCCP Unit 1B – One nominal 270 MW CTG with duct-fired HRSG
042	CCCP Unit 2A – One nominal 270 MW CTG with duct-fired HRSG
043	CCCP Unit 2B – One nominal 270 MW CTG with duct-fired HRSG
044	Natural Gas Fueled Auxiliary Boiler rated at approximately 83 MMBtu/hour heat input
046	One ULSD-fueled Emergency Generator rated at approximately 1,500 kW
047	One ULSD-fueled Emergency Generator rated at approximately 1,500 kW
048	One ULSD-fueled Emergency Firewater Pump Engine rated at approximately 305 hp
049	Two 12-cell Mechanical Draft Cooling Towers
050	Two (6-cell) CTG Inlet Chiller Cooling Towers (optional)
None	Raw and Demineralized Water Storage Tanks, Aqueous Ammonia Storage, Handling

FACILITY REGULATORY CLASSIFICATION

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act (CAA).
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.
- The facility is a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

REPLACEMENT OF PERMIT NO. 0170004-047-AC

This permit replaces the original air construction permit for the Citrus Combined Cycle Project, Permit No. 0170004-047-AC, as administratively corrected by Permit No. 0170004-051-AC.

SECTION 2. ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance in the Division of Air Resource Management of the Department of Environmental Protection (Department). The Office of Permitting and Compliance mailing address is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400, and the office's email address is DARM_Permitting@dep.state.fl.us.

2. Compliance Authority: All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Department's Southwest District Office 13051 North Telecom Parkway, Temple Terrace, Florida 33637. The District Office's telephone number is 813-632-7600, and the email address is SWD_air@dep.state.fl.us.

3. Appendices: The following Appendices are attached as a 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);
   f. Appendix Subpart Dc;
   g. Appendix Subpart DDDDD.
   h. Appendix Subpart IIII;
   i. Appendix Subpart KKKK;
   j. Appendix Subpart TTTT;
   k. Appendix XS (Semiannual NSPS Excess Emission Report);
   l. Appendix Subpart YYYY; and
   m. Appendix Subpart ZZZZ.

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

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

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

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

8. Source Obligation:

   a. At such time that a particular source or modification becomes a major stationary source or major modification (as these terms were defined at the time the source obtained the enforceable limitation) solely by virtue of a relaxation in any enforceable limitation which was established after August 7, 1980, on the capacity of the source or modification otherwise to emit a pollutant, such as a restriction on hours of operation, then the requirements of subsections 62-212.400(4) through (12), F.A.C., shall apply to the source or modification as though construction had not yet commenced on the source or modification.

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

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

9. Permanent Shutdown of Crystal River Units 1 and 2: The Permittee shall not commence commercial operation of a combined cycle block (exclusive of sale of test generation) until either CREC coal-fueled Unit 1 or Unit 2 has shut down. The retired unit shall remain permanently shut down unless the remaining CREC coal-fired unit becomes inoperable. In the event that the remaining CREC coal-fired unit becomes inoperable, the unit initially shut down may be substituted for the unit that has become inoperable. The Permittee shall notify the Permitting and Compliance Authorities within one business day of exercising this option, and this notification shall explain why the unit has become inoperable. At no time after the commencement of commercial operation of the first combined cycle block may both CREC Units 1 and 2 be operational at the same time. The Permittee shall not commence commercial operation of the second combined cycle block (exclusive of sale of test generation) until both CREC coal-fueled Units 1 and 2 have permanently shut down.
   [Rule 62-210.200(189), F.A.C. and Avoidance of Rule 62-212.400, F.A.C.]

   {Permitting note: The decreases in actual emissions due to the shutdown of CREC Units 1 and 2 are contemporaneous (and thus creditable in a net emission increase/decrease calculation) with the increases from the CCCP only if they occur between the date five years before construction of the CCCP commences; and the date that the increases from the CCCP combined cycle blocks occur. The length of time between the commencement of commercial operation of the first and second combined cycle blocks is expected to be approximately six months.}

10. Application for Title IV Permit: The permittee shall apply for a Title IV Acid Rain 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 the application to the permitting authority in Condition 1 above and shall submit a to the Region 4 Office of the U.S. Environmental Protection Agency in Atlanta, Georgia. This permit does not specify the Acid Rain program requirements. The Title IV requirements will be included in the Title V air operation permit issued by the Department.
    [40 CFR 72]

11. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V air operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V air operation permit at least 90 days prior to expiration of this permit, but no later than 180 days after 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 the Compliance Authority.
    [Rules 62-4.030, 62-4.050, 62-4.220 and Chapter 62-213, F.A.C.]

A. CCCP UNITS 1 AND 2 – COMBUSTION TURBINE GENERATORS (EU 051, 052, 042, AND 043)

EU No.	Emission Unit Description
051	CCCP Unit 1A – Nominal 270 MW CTG with duct-fired-HRSG [1]
052	CCCP Unit 1B – Nominal 270 MW CTG with duct-fired-HRSG [1]
042	CCCP Unit 2A – Nominal 270 MW CTG with duct-fired-HRSG [1]
043	CCCP Unit 2B – Nominal 270 MW CTG with duct-fired-HRSG [1]

1. Steam produced in the four duct-fired HRSGs will drive two 280 MW Steam Turbine-Electric Generators.

Fuels: Each combustion turbine-electric generator (CTG) and duct burner (DB) fires only natural gas.

Heat Input Ratings: The maximum heat input rate of each CTG is 2,675 MMBtu/hour based on a compressor inlet air temperature of 59 degrees Fahrenheit (°F), 60 percent (%) relative humidity, 14.7 pounds per square inch (psi) pressure, the higher heating value (HHV) of each fuel and 100% load. The design heat input of each duct burner located within each heat recovery steam generator (HRSG) is 256 MMBtu/hour.

Controls: Inherently clean fuels, lean premix combustion technology such as Dry Low-NO_X (DLN).

Stack Parameters: Each HRSG has a stack height of approximately 180 feet with an exit diameter of 22 feet.

Continuous Monitors: Each HRSG stack is equipped with a continuous emissions monitoring system (CEMS) to measure and record nitrogen oxides (NO_X) as well as flue gas oxygen (O_2) or carbon dioxide (CO_2) content.

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS Requirements: Each CTG or CTG/DB shall comply with all applicable requirements of 40 CFR 60, listed below, adopted by reference in Rule 62-204.800(8)(b) and (d), F.A.C.

   a. *Subpart A - General Provisions*, including:

      - 40 CFR 60.7, Notification and Record Keeping
      - 40 CFR 60.8, Performance Tests
      - 40 CFR 60.11, Compliance with Standards and Maintenance Requirements
      - 40 CFR 60.12, Circumvention
      - 40 CFR 60.13, Monitoring Requirements
      - 40 CFR 60.19, General Notification and Reporting Requirements

   b. *Subpart KKKK - Standards of Performance for Stationary Combustion Turbines:* These provisions include requirements applicable to CTGs and to duct burners located in HRSGs.

   c. *Subpart TTTT – Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units*

   [Rule 62-204.800(8)(b) and (d), F.A.C.; NSPS Subparts A, KKKK and TTTT]

2. NESHAP Requirements: The CTGs are subject to the Initial Notification requirements set forth in NESHAP Subpart YYYY, §63.6145 but need not comply with any other requirement of this subpart until EPA takes final action to require compliance and publishes a document in the Federal Register. [Rule 62-204.800(11)(b) and (d), F.A.C.; NESHAP Subpart A, §63.9 and Subpart YYYY, §§63.6095 and 63.6145]

A. CCCP UNITS 1 AND 2 – COMBUSTION TURBINE GENERATORS (EU 051, 052, 042, AND 043)

EQUIPMENT

3. Combustion Turbine Generators (CTGs): The permittee is authorized to install, tune, operate, and maintain four CTGs each with a nominal generating capacity of 270 MW. Ancillary equipment includes an automated control system, an inlet air filtration system and an (optional) inlet air-cooling system. [Application No. 0170004-047-AC]

4. Heat Recovery Steam Generators (HRSGs): The permittee is authorized to install, operate and maintain four HRSGs, associated duct burners and exhaust stacks. Each HRSG shall be designed to recover exhaust heat energy from one of the four CTGs and deliver steam to one of the two steam turbine-electrical generators (STGs). [Application No. 0170004-047-AC]

5. Emission Controls

   a. *Dry Low NO_X (DLN) Combustion*: The permittee shall employ lean premix (also called DLN) technology within the combustors and an automated control system to control NO_X emissions from each CTG. The DLN combustors and automated control system shall be tuned to achieve sufficiently low NO_X concentrations to meet the NO_X limits with the additional SCR control technology described below.

   b. *Selective Catalytic Reduction (SCR) System*: The permittee shall install, tune, operate, and maintain an SCR system to control NO_X emissions from each CTG. The SCR system consists of an ammonia injection grid, catalyst, ammonia storage, monitoring and control system, electrical, piping and other ancillary equipment. The system must be operated only to the extent necessary to comply with NSPS NO_X emissions standards given in **Specific Condition 10**.

   c. *Ammonia Storage:* In accordance with 40 CFR 60.130, the storage of ammonia shall comply with all applicable requirements of the Chemical Accident Prevention Provisions in 40 CFR 68.

[Application No. 0170004-047-AC]

PERFORMANCE RESTRICTIONS

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

7. Authorized Fuel: The CTGs shall fire only natural gas as a fuel, which shall contain no more than 2.0 grains of sulfur per 100 standard cubic feet (gr/100 SCF) of natural gas. Compliance with the fuel sulfur limit shall be determined using the methods provided in **Specific Condition 29** below.
   [Application No. 0170004-047-AC]

   *{Permitting note: This SIP-based fuel specification is more stringent than the NSPS-based specification given in **Condition 11**. Periods during which sulfur content exceeds 2 gr/100 SCF are not permitted.}*

8. Operation: The hours of operation of CCCP Units 1 and 2 are not limited (8,760 hours per year). The duct burners may be fired up to 16,000 hours aggregated over the four HRSG during any calendar year.
   [Application No. 0170004-047-AC; Rule 62-210.200(PTE), F.A.C.]

EMISSIONS STANDARDS

9. NSPS Subpart KKKK Good Air Pollution Control Practices: The permittee shall operate and maintain the CTGs, duct burners, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction. [NSPS Subpart KKKK, §60.4333(a)]

10. NSPS Subpart KKKK NO_X Standards: Emissions of NO_X from each CTG or CTG/DB shall not exceed the following standards.

Pollutant	Method of Operation [a]	Emission Standard [b]	Averaging Time [c]
NO_X	CTG ≥ 75% of full CTG load or CTG+DB	15 ppmvd @15% O_2	30 unit operating days (rolling, CEMS)
	CTG <75% of full CTG load	96 ppm @15% O_2	

a. Method of Operation CTG means that only the combustion turbine is operating. Method of Operation CTG+DB means both the combustion turbine and the duct burner located within the HRSG are operating.
b. Concentration standards are expressed as parts per million, by volume, dry, at 15 percent oxygen (ppmvd @15% O_2).
c. "Unit operating day" means a 24-hour period between 12 midnight and the following midnight during which any fuel is combusted at any time in the unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period. The 30 unit operating day value is rolled each operating day. [40 CFR 60.4420]

[Application No. 0170004-047-AC; NSPS Subpart KKKK, §§60.4320(a), 60.4340(b)(1) and 60.4350(h)]

11. NSPS Subpart KKKK Sulfur Dioxide (SO_2) Standard: Emissions of SO_2 from each CTG or CTG/DB shall not exceed 0.06 pounds per million Btu heat input (lb/MMBtu). The permittee shall provide a valid purchase contract, tariff sheet or transportation contract for natural gas specifying that the maximum total sulfur content for natural gas is 20 gr/100 SCF or less. Compliance with the authorized fuel specification in **Specific Condition 7** above further ensures compliance with the SO_2 standard. [Application No. 0170004-047-AC; NSPS Subpart KKKK, §§60.4330(a)(2), 60.4365 and 60.4370]

12. NSPS Subpart TTTT Carbon Dioxide (CO_2) Standard: Emissions of CO_2 from each CTG or CTG/DB shall not exceed 1,000 lb CO_2 per megawatt-hour (MWh) of gross energy output. Alternatively, the permittee may choose to demonstrate compliance with a standard of 1,030 lb CO_2 per MWh of net energy output. Compliance shall be demonstrated on a 12-operating-month rolling average basis. Compliance shall be calculated using a CO_2 CEMS or fuel heat input monitor. [40 CFR 60.5525(a)(1), 60.5535(b)(1), 60.5535(c), and Table 2 to NSPS Subpart TTTT]

13. Visible Emissions (VE) Emission Standards:
    a. *VE emission standard during normal operation:* VE from each CTG or CTG/DB during normal operation shall not exceed 10% opacity based on a 30-minute test conducted annually in accordance with EPA Method 9 - Visual Determination of Opacity.
    [Application No. 0170004-047-AC; Rule 62-4.070, F.A.C.]
    b. *Startup and shutdown definitions: 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. *Shutdown* is the cessation of the operation of an emissions unit for any purpose.
    [Rule 62-210.200(Definitions), F.A.C.]
    c. *Alternate VE emission standard during startups and shutdowns:* VE from each CTG or CTG/DB during startups and shutdowns shall not exceed 15% opacity except for up to one, 6-minute averaging period during a 30-minute period, during which VE shall not exceed 20% opacity. This alternate VE standard and set of durations shall apply during the specific types of startups and shutdowns described below provided that the operator employs the best operational practices to minimize the magnitude and duration of emissions during such incidents.
    d. *STG System Cold Startup*: The applicability of the alternate VE standard during startup of a cold steam turbine system shall not exceed 480 minutes in any 24-hour period. A "*cold startup of the steam turbine*

system" is defined for the purposes of this permit section as startup of a 2-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 STG system, each CTG/HRSG system is sequentially brought on line at low load to gradually increase the temperature of the STG and prevent thermal metal fatigue.}

e. *STG/HRSG Hot Startup*: The applicability of the alternate VE standard during startup of a hot STG/HRSG system shall not exceed 240 minutes in any 24-hour period. A *"hot startup of the STG/HRSG system"* is defined for the purposes of this permit section as startup of a 2-on-1 combined cycle system following a shutdown of the steam turbine lasting less than 48 hours.

f. *CTG/HRSG System Cold Startup*: The applicability of the alternate VE standard during startup of a cold CTG/HRSG system shall not exceed 240 minutes in any 24-hour period. *"Cold startup of a CTG/HRSG system"* is defined for the purposes of this permit section as a startup and blending into combined cycle service after that CTG/HRSG has been off-line for four hours or longer.

g. *CTG/HRSG System Hot Startup*: The applicability of the alternate VE standard during startup of a hot CTG/HRSG system shall not exceed 120 minutes in any 24-hour period. *"Hot startup of a CTG/HRSG system"* is defined for the purposes of this permit section as a startup and blending into combined cycle service after that CTG/HRSG has been off-line for less than four hours.

h. *Shutdown of Combined Cycle Operation:* The applicability of the alternate VE standard during shut down of a combined cycle block shall not exceed 180 minutes hours in any 24-hour period for each CTG/HRSG system.

i. *DLN Tuning:* The alternate VE standard applies during a DLN tuning session and manufacturer-required full-speed no-load (FSNL) trip tests, provided the tuning is conducted 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.

j. The events described in paragraphs d. through h. of this condition are considered separately and each may occur independently within any 24-hour period. Annual compliance testing is not required for these events.

[Application Nos. 0170004-047-AC and 0170004-055-AC; Rules 62-4.070(3), 62-210.200(Definitions) and 62-210.700(5), F.A.C.]

{Permitting note: the combination of the VE standards, the high CTG and DB firing temperature, the natural gas authorized fuel sulfur specification, and the NO_X limit fuel will minimize particulate matter (PM) emissions including PM smaller than 10 microns (PM_{10}), PM smaller than 2.5 microns ($PM_{2.5}$) and condensable PM.}

Start-up Condition	**Hours Off-Line**	**Length of Alternative VE Standard Applicability (in any 24-hour period)**
Steam Turbine Starts		
ST System Cold Startup	≥ 48	480 minutes
ST Hot Startup	< 48	240 minutes
CTG/HRSG Blend-Ins		
CTG/HRSG Cold Startup	≥ 4	240 minutes
CTG/HRSG Hot Startup	< 4	180 minutes

MONITORING REQUIREMENTS

14. Continuous Emissions Monitoring System(s) (CEMS): The permittee shall install, calibrate, maintain, and operate CEMS to measure and record the emissions of NO_X from the combined cycle CTGs in a manner

sufficient to demonstrate continuous compliance with the NSPS Subpart KKKK emission standards. The permittee shall also install, calibrate, maintain, and operate a CO_2 CEMS or heat input monitoring system to demonstrate compliance with the NSPS Subpart TTTT emission standards. [Application No. 0170004-047-AC; NSPS Subpart KKKK, §60.4340(b)(1); 40 CFR 60.5535(b)(1) and 60.5535(c)]

15. CEMS Equipment Requirements:

    a. Each NO_X diluent CEMS (NO_X pollutant concentration monitor and diluent gas monitor) must be installed and certified according to Performance Specification 2 (PS 2) in 40 CFR 60, Appendix B, except the 7-day calibration drift is based on unit operating days, not calendar days. Procedure 1 in 40 CFR 60, Appendix F is not required. Alternatively, a NO_X diluent CEMS that is installed and certified according to 40 CFR 75, Appendix A is acceptable for use under this subpart. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis.

    b. As specified in NSPS Subpart A, §60.13(e)(2), during each full unit operating hour, both the NO_X monitor and the diluent monitor must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point must be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance (QA) and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_X emission rate for the hour.

    c. Each fuel flowmeter shall be installed, calibrated, maintained, and operated according to the manufacturer's instructions. Alternatively, with state approval, fuel flowmeters that meet the installation, certification, and QA requirements of 40 CFR 75, Appendix D are acceptable.

    d. Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions.

    e. The owner or operator shall develop and keep on-site a QA plan for all of the continuous monitoring equipment described in paragraphs (a), (c), and (d) of this section. For the CEMS and fuel flow meters, the owner or operator may satisfy the requirements of this paragraph by implementing the QA program and plan described in 40 CFR 75, Appendix B, Section 1.

    [NSPS Subpart KKKK, §60.4345]

EXCESS EMISSIONS - NSPS

{Permitting Note: The following condition applies to the NSPS emissions standards applicable to the CTG/HRSGs}

16. Excess Emissions Reporting Requirement - NO_X: The permittee shall document and report periods of excess emissions. For combined cycle CTGs using CEMS as described in §§60.4335(b) and 60.4345 such periods are any unit operating period in which the 30-day rolling average NO_X emission rate exceeds the applicable emission limit in §60.4320 (refer to **Specific Condition 10**). For the purposes of NSPS Subpart KKKK, a "30-day rolling average NO_X emission rate" is the arithmetic average of all hourly NO_X emission data in ppm measured by the CEMS equipment for a given day and the twenty-nine unit operating days immediately preceding that unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_X emissions rates for the preceding 30 unit operating days if a valid NO_X emission rate is obtained for at least 75 percent of all operating hours. [NSPS Subpart A, §60.7(c) and NSPS Subpart KKKK, §§60.4375 and 60.4380]

17. Excess Emissions Reporting Requirement - SO_2: **Specific Condition 11** requires the permittee to submit valid purchase contract, tariff sheet or transportation contract for natural gas specifying that the maximum total sulfur content for natural gas is 20 gr/100 SCF or less. The permittee is not required by NSPS Subpart

KKKK to subsequently monitor the total sulfur content of the fuel or to report excess SO_2 emissions in excess of the NSPS limitation of 20 gr/100 SCF.

*{Permitting Note: The applicable Department SIP-based fuel sulfur limitation of 2 gr/100 SCF in **Specific Condition** 7 above further ensures there will be no excess emissions of the greater NSPS Subpart KKKK sulfur/SO_2 standards.}*

EXCESS EMISSIONS – SIP

18. 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. *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.
[Rules 62-210.700(4) and 62-210.200(Definitions), F.A.C.]

19. Best Operational Practices (BOPs) Required: The permittee shall train and require all operators and supervisors to operate and maintain the CTGs, duct burners, air pollution control equipment, and monitoring equipment in a manner consistent with best operational practices (BOPs) for minimizing emissions at all times including during startup, shutdown, and malfunction.
[Rules 62-4.070(3) and 62-210.700(1), F.A.C.]

TESTING REQUIREMENTS

20. Operating Rate During Testing: Initial and annual stack tests shall be conducted at 90% or greater of the design heat input ratings provided in emissions unit description above and corrected per the manufacturer's performance curves in accordance with **Specific Condition** 6.
[Rule 62-297.310, F.A.C.]

21. Initial Compliance Demonstration: Initial compliance stack tests shall be conducted or commence (based on averaging period) within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup. In accordance with the test methods specified in this permit, the CTGs (including duct burners) shall be tested to demonstrate initial compliance with the visible emissions (opacity) standard.
[Rules 62-4.070(3) and 62-297.310(7)(a), F.A.C.]

22. Subsequent Compliance Testing: Annual compliance tests for visible emissions (opacity) shall be conducted during each calendar year (January 1st to December 31st).
[Rules 62-4.070(3) and 62-297.310(7)(a)4, F.A.C.]

23. Relative Accuracy Test Audits (RATA): Within 45 days of conducting any RATA on a NO_X CEMS, the permittee shall submit a report to the Compliance Authority summarizing results of the RATA.
[Rule 62-4.070(3), F.A.C.; 40 CFR 60 Subpart KKKK]

24. Special Performance Tests for CO and Volatile Organic Compounds (VOC): Special performance tests for CO and VOC shall be conducted or commence within 60 days after achieving the maximum production rate, but not later than 180 days after the initial startup of each unit. The 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. In accordance with the test methods specified in this permit, the CTGs (including duct burners) shall be tested to determine the concentration and mass emission rates for CO and VOC. The test results shall be compared with the values listed below. If the listed values are exceeded, then the permittee shall submit an application with a request for enforceable CO and VOC limits and testing procedures that further ensure that the requirements of subsections 62-212.400(4) through (12), F.A.C. are not triggered.

Pollutant	Method of Operation [a]	Stack Test, 3-run Average	
		ppmvd @ 15% O_2	lb/hr [a]
CO	CTG	4.0	24.0
	CTG + DB	7.0	48.0
VOC	CTG	0.8	2.8
	CTG + DB	1.3	4.7

a. The mass rate standards are based on a turbine inlet condition of 59° F and may be adjusted to actual test conditions in accordance with the performance curves and/or equations on file with the Department.

[Application No. 0170004-047-AC; Rules 62-4.070(3) and 62-297.310(7)(a), F.A.C.]

{Permitting note: After fulfillment, this condition shall not be included in the facility Title V permit}

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

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

Method	Description of Method [a]
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content
7E	Determination of Nitrogen Oxide Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of CO Emissions from Stationary Sources
18 [b]	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography
25A [b]	Determination of Total Gaseous Organic Concentration using Flame Ionization Analyzer

a. The methods are described in 40 CFR 60, 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 Department's Office of Permitting and Compliance in accordance with an alternate sampling procedure pursuant to 62-297.620, F.A.C.

b. EPA Method 25A is used to determine VOC. EPA Method 18 may be used to determine and deduct emissions of methane and ethane from the emissions measured using Method 25A when determining VOC emissions.

[Rule 62-204.800 F.A.C.; Rule 62-297.100 F.A.C.; 40 CFR 60 Appendix A]

RECORDS AND REPORTS

27. Monitoring of Capacity: The permittee shall monitor and record the operating rate of each CTG and HRSG system on a daily average basis, considering the number of hours of operation during each day (including the times of startup, shutdown and malfunction). Such monitoring shall be made using a monitoring component of the CEMS required above, or by monitoring daily rates of consumption and heat content of each allowable fuel in accordance with the provisions of 40 CFR 75 Appendix D. [Rule 62-4.070(3), F.A.C.]

28. Monthly Operations Summary: By the fifth calendar day of each month, the permittee shall record the following for each fuel in a written or electronic log for each CTG for the previous month of operation: fuel consumption, hours of operation, and the updated 12-month rolling 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), F.A.C.]

29. Fuel Sulfur Records: Compliance with the fuel sulfur limit for natural gas given in **Condition 7** 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. These methods shall be used to determine the fuel sulfur content in conjunction with the provisions of 40 CFR 75 Appendix D.
[Rule 62-4.070(3), F.A.C; Rule 62-4.160(15), F.A.C.]

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

31. Excess Emissions and Periodic Reporting:

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

    b. *SIP Semi-Annual Permit Limits Excess Fuel Sulfur Report:* Within 30 days following the end of each semi-annual period, the permittee shall submit a report to the Compliance Authority summarizing periods during which fuel sulfur content exceeds 2 gr./100 SCF.

    c. *NSPS Semi-Annual Excess Emissions Reports*: For purposes of reporting emissions in excess of NSPS Subpart KKKK, excess emissions means a specified averaging period over which either (1) the NO_X emissions are higher than the applicable emission limit in §60.4320; or (2) the total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in §60.4330. Within thirty (30) days following each calendar semi-annual period, the permittee shall submit a report on any periods of excess emissions that occurred during the previous semi-annual period to the Compliance Authority.

    d. *NSPS Subpart TTTT Quarterly Reports*: The permittee shall submit electronic reports as required by NSPS Subpart TTTT. After the unit has accumulated the first 12 operating months, the permittee shall submit a report for the calendar quarter that includes the twelfth operating month no later than 30 days after the end of that quarter. Thereafter, the permittee shall submit a report for each subsequent calendar quarter, no later than 30 days after the end of the quarter. Each report shall identify each operating month in the quarter where the unit violated the applicable CO_2 emission standard. Reports shall be submitted using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of EPA. The permittee shall send a copy of the report or notification of electronic submittal of the report to the Compliance Authority.

    {Note: If there are no periods of excess emissions as defined in NSPS Subpart KKKK, a statement to that effect may be submitted with the SIP Semi-Annual Report to suffice for the NSPS Semi-Annual Report.}

[Rule 62-4.130, F.A.C.; Rule 62-204.800, F.A.C.; Rule 62-210.700(6), F.A.C.; 40 CFR 60.7; 40 CFR 60.4420; 40 CFR 60.5555(a) and (b)]

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

33. Mandatory Greenhouse Gas Reporting: The GHG reporting requirements and related monitoring, recordkeeping, and reporting requirements of 40 CFR Part 98 – Mandatory Greenhouse Gas (GHG) Reporting apply to the owners and operators of electricity generation units that must report CO_2 mass emissions year round through 40 CFR 75, Subpart D. The report shall be submitted electronically for the CTGs, including the duct burners, in accordance with the instructions in Part 98 and shall include the emissions units in subsequent sections of the permit to the extent required by Part 98.

B. AUXILIARY BOILER (EU 044)

ID No.	Emission Unit Description
044	One natural gas fueled auxiliary boiler rated at approximately 83 MMBtu/hour heat input (HHV)

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS Requirements: The natural gas fueled auxiliary boiler is subject to the applicable requirements of NSPS Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units. Initial notification is required for the auxiliary boiler pursuant to NSPS Subpart A, Section 60.7. [Rules 62-204.800(8)(d), F.A.C; Rule 62-204.800(8)(b)3., F.A.C.; NSPS Subpart A; NSPS Subpart Db]

2. NESHAP Requirements: The auxiliary boiler is subject to the applicable requirements of NESHAP Subpart A – General Provisions and Subpart DDDDD – Industrial, Commercial, and Institutional Boilers and Process Heaters.
[Rules 62-204.800(11)(b) and (d), F.A.C.; NESHAP Subpart A; NESHAP Subpart DDDDD]

EQUIPMENT

3. Auxiliary Boiler: The permittee is authorized to install, operate, and maintain one auxiliary boiler with a design heat input capacity of 83 MMBtu/hour (HHV). [Application Nos. 0170004-047-AC and 0170004-055-AC]

OPERATION RESTRICTIONS

4. Hours of Operation: The hours of operation of the auxiliary boiler shall not exceed 2,000 hours/year. [Application No. 0170004-047-AC]

5. Fuel Restriction: The fuel used in the auxiliary boiler is restricted to natural gas.
[Application No. 0170004-047-AC]

EMISSION STANDARDS

6. Fuel Sulfur Specification (BACT): The natural gas burned in the auxiliary boiler shall have a maximum sulfur content of 2.0 gr/100 SCF. This fuel specification constitutes the Department's determination of Best Available Control Technology (BACT) for SO_2 and PM. [Application No. 0170004-047-AC; BACT pursuant to Rule 62-296.406(2) and (3), F.A.C.]

7. Visible Emissions Standard: Visible emissions (VE) shall not exceed 20 percent opacity except for one six-minute period per hour during which opacity shall not exceed 27 percent.
[Rule 62-296.406(1), F.A.C.]

   {Permitting Note: NSPS Subpart Dc does not contain a VE standard for units firing only natural gas}

8. NESHAP Subpart DDDDD Work Practice Standard: The auxiliary boiler is subject to the Work Place Standards applicable to boilers with a rating of 10 MMBtu/hour or greater. For the Gas 1 (includes natural gas) subcategory auxiliary boiler, the permittee shall conduct the annual tune-up described below as a work practice for all regulated emissions under NESHAP Subpart DDDDD.

   a. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (you may delay the burner inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the burner inspection until the first outage, not to exceed 36 months from the previous inspection. At units where entry into a piece of process equipment or into a storage vessel is required to complete the tune-up inspections, inspections are required only during planned entries into the storage vessel or process equipment;

   b. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;

c. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown). Units that produce electricity for sale may delay the inspection until the first outage, not to exceed 36 months from the previous inspection;

d. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject;

e. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer; and

f. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information below:

   i. The concentrations of CO in the effluent stream in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;

   ii. A description of any corrective actions taken as a part of the tune-up; and

   iii. The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

[NESHAP Subpart DDDDD, §§63.7540(a)(10), 63.7500 and Table 3]

{Permitting Note: Boilers and process heaters in the units designed to burn "Gas 1" fuels subcategory are not subject to the emission limits in Tables 1 and 2 or 11 through 13 or the operating limits in Table 4 of NESHAP Subpart DDDDD}.

NOTIFICATIONS, REPORTING AND RECORDKEEPING REQUIREMENTS.

9. NSPS Requirements: The owner or operator of each affected facility shall submit notifications, reporting and maintain records as required by NSPS Subparts A and Dc and as described in NSPS Subpart Dc, 40 CFR 60.48c(a) through (j). [NSPS Subparts A and Dc]

10. NESHAP Requirements: The owner or operator of each affected facility shall submit the notifications and maintain records as required by NESHAP Subparts A and DDDDD.
[NESHAP Subparts A and DDDDD]

C. EMERGENCY GENERATORS (EU 046 AND 047)

The specific conditions in this section apply to the following emissions unit(s):

EU No.	Brief Description
046	One ULSD-fueled Emergency Generator rated at approximately 1,500 kW
047	One ULSD-fueled Emergency Generator rated at approximately 1,500 kW

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS, Subpart IIII Applicability: The emergency generators are subject to NSPS Subpart IIII - Stationary Compression Ignition Internal Combustion Engines.
[Rule 62-204.800(8)(b), F.A.C.; NSPS Subpart IIII]

2. NESHAP, Subpart ZZZZ Applicability: The emergency generators are subject only to the initial notification requirements of NESHAP Subparts A and ZZZZ - Stationary Reciprocating Internal Combustion Engines.
[Rule 62-204.800(11)(b) and (d); NESHAP Subpart A, §63.9(b)2 and NESHAP Subpart ZZZZ, §63.6645(f)]

EQUIPMENT SPECIFICATIONS

3. Equipment: The permittee is authorized to install, operate, and maintain two ULSD-fueled emergency electric generators each rated at approximately 1,500 kW. The electrical generators must be installed and configured according to the manufacturer's specifications.
[Application No. 0170004-047-AC; NSPS Subpart IIII]

EMISSIONS AND PERFORMANCE REQUIREMENTS

4. Hours of Operation: Operation of the emergency generators is limited as follows:
   a. There is no time limit on the use of the emergency generators in emergency situations;
   b. Each emergency generator may be operated for a maximum of 100 hours/calendar year for the purposes of maintenance and testing, emergency demand response and voltage deviations; and
   c. Each emergency generators can be operated for up to 50 hours/calendar year in non-emergency situations but shall be counted towards the 100 hours/calendar year allowed in 4.b. above.

   [NSPS Subpart IIII, §60.4211(f)]

5. Fuel Specification: The generators shall burn nonroad diesel fuel with a sulfur specification of 15 parts per million (ppm) or less. [Application No. No. 0170004-047-AC; 40 CFR 80, Subpart I]

6. Emergency Generator Emission Limits: The permittee shall purchase/install emergency generators that are certified by the manufacturer(s) to the certification emission standards given below for the given model year and maximum engine power ranges.

Emergency Generator (> 560 kW, Tier 2)	**CO** (g/kW-hr)[1]	**PM** (g/kW-hr)	**NMHC[2]+NO_X** (g/kW-hr)
Model year 2006 and later	3.5	0.20	6.4
1. g/kW-hr means grams per kilowatt-hour. 2. NMHC means Non-Methane Hydrocarbons.			

   [Application No. 0170004-047-AC; NSPS Subpart IIII, 40 CFR §89.112]

7. Emergency Generators Testing Requirements: The certification requirement given in **Condition** 6 fulfills testing requirements. The permittee shall maintain documentation from the manufacturer that the engine is certified to meet the emission standards. [NSPS Subpart IIII]

D. FIRE PUMP ENGINE (EU 048)

EU No.	Emission Unit Description
048	One ULSD-fueled Emergency Firewater Pump Engine rated at approximately 305 hp

APPLICABLE STANDARDS AND REGULATIONS

1. NSPS, Subpart IIII Applicability: The ULSD-fueled emergency firewater pump engine is subject to NSPS Subpart IIII - Stationary Compression Ignition Internal Combustion Engines. [Rule 62-204.800(8)(b), F.A.C.; NSPS Subpart IIII]

2. NESHAP, Subpart ZZZZ Applicability: The ULSD-fueled emergency firewater pump engine is subject only to the initial notification requirements of NESHAP Subparts A and ZZZZ - Stationary Reciprocating Internal Combustion Engines. [Rule 62-204.800(11)(b) and (d); NESHAP Subpart A, §63.9(b)2 and NESHAP Subpart ZZZZ, §63.6645(f)]

EQUIPMENT SPECIFICATIONS

3. Equipment: The permittee is authorized to install, operate, and maintain one ULSD-fueled emergency firewater pump engine rated at approximately 305 horsepower (hp). The emergency firewater pump engine must be installed and configured according to the manufacturer's specifications. [Application Nos. 0170004-047-AC and 0170004-055-AC]

4. Hours of Operation: Operation of the emergency firewater pump is limited as follows:
   a. There is no time limit on the use of the emergency firewater pump in emergency situations;
   b. The emergency firewater pump may be operated for a maximum of 100 hours/calendar year for the purposes of maintenance and testing; and
   c. Each emergency firewater pump can be operated for up to 50 hours/calendar year in non-emergency situations but shall be counted towards the 100 hours/calendar year allowed in 4.b. above.

   [NSPS Subpart IIII, §60.4211(f)]

EMISSION STANDARDS

5. Fuel Specification: The emergency firewater pump shall burn nonroad diesel fuel with a sulfur specification of 15 ppm or less. [Application No. No. 0170004-047-AC; 40 CFR 80, Subpart I]

6. Emergency Firewater Pump Emission Limits: The permittee shall purchase/install an emergency firewater pump that is certified by the manufacturer to the certification emission standards given below for the given model year and maximum engine power ranges.

Emergency Pumps (300 < hp < 600 hp)	**CO** (g/hp-hr) [1]	**PM** (g/hp-hr)	**NMHC+NO_X** (g/hp-hr)
Model year 2009 and later	2.6	0.15	3.0
1. g/hp-hr means grams per horsepower-hour.			

[Application Nos. 0170004-047-AC and 0170004-055-AC; NSPS Subpart IIII, §§60.4202(d) and 60.4205(c), Table 4]

7. Emergency Generators Testing Requirements: The certification requirement given in **Condition** 6 fulfills testing requirements. The permittee shall maintain documentation from the manufacturer that the engine is certified to meet the emission standards. [NSPS Subpart IIII]

E. COOLING TOWERS (EU 049 AND 050)

This subsection of the permit addresses the following emissions units.

EU No.	Emissions Unit Description
049	Two (12-cell) Mechanical Draft Cooling Towers
050	Two (6-cell) CTG (optional) Inlet Chiller Cooling Towers

The mechanical cooling tower will use seawater as the source of cooling water.

EQUIPMENT

1. Mechanical Draft Cooling Towers: The permittee is authorized to install two 12-cell mechanical draft cooling towers, each with the following nominal design characteristics: 56 feet high; circulating water flow rate of 196,300 gallons per minute (gpm); Total Dissolved Solids (TDS) of 30,680 parts per million by weight (ppmw); and drift eliminators with a drift rate of no more than 0.0005%. [Application Nos. 0170004-047-AC and 0170004-055-AC]

2. Inlet Chiller Cooling Towers (Optional): The permittee is authorized to install two 6-cell mechanical draft cooling towers, each with the following nominal design characteristics: 43 feet high; circulating water flow rate of 6,000 gpm; TDS of 3,000 ppmw; and drift eliminators with a drift rate of no more than 0.0005%. [Application No. 0170004-047-AC]

EMISSIONS AND PERFORMANCE REQUIREMENTS

3. Drift Rate: For each cooling tower, within 60 days of commencing commercial operation, the permittee shall certify 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. [Application No. 0170004-047-AC]