Title V Air Operation Permit Renewal

Permit No. 1070025-039-AV

APPLICANT

The applicant for this project is Seminole Electric Cooperative, Inc. The applicant's responsible official and mailing address are: David Ferrentino, Vice President and General Counsel, Seminole Electric Cooperative, Inc., Seminole Generating Station, 890 North U.S. Highway 17, Palatka, Florida 32177-8647.

FACILITY DESCRIPTION

The Seminole Electric Cooperative, Inc. operates the existing Seminole Generating Station. This facility is an existing electrical generation facility that is owned by Seminole Electric Cooperative, Inc. The Seminole Generating Station (SGS) consists of one dry-bottom, wall-fired electric utility boiler and associated steam turbines; a coal storage yard; limestone, wet scrubber sludge and ash handling and storage; emergency equipment (emergency generator diesel engine, emergency fire pump diesel engine, fire water pump engine, and a switchyard emergency generator); general plant fugitive emissions; and ancillary support equipment. Emission Unit (EU) No. 002 is fired by coal as a primary fuel, and fuel oil as a limited secondary fuel. The maximum heat input rate and nominal gross generating capacity of this unit are 7,172 million British thermal units per hour (MMBtu/hour) and 714.6 megawatts (MW), respectively. The utility boiler is equipped with the following air pollution equipment: an electrostatic precipitator (ESP) to control particulate matter (PM) emissions; an upgraded wet limestone flue gas desulphurization (FGD) system to control sulfur dioxide (SO_2) emissions; a low NO_x burner (LNB) system, low excess air firing and a selective catalytic reduction (SCR) system to control NO_x emissions; and an alkali injection system. The alkali injection system is not required to meet current sulfuric acid mist (SAM) emissions limits, but will be available for use if needed. This utility boiler is equipped with continuous emission monitoring system (CEMS) to measure and record SO_2, NO_x, and carbon dioxide (CO_2) emissions as well as a continuous opacity monitoring system (COMS) to measure and record opacity of the exhaust gas.

Two combined-cycle General Electric 7HA.02 turbines (EU Nos. 017 & 018) are equipped with inlet evaporative air cooling, with a nominal generator rating of 384 MW. Each combustion turbine (CT) has a nominal design heat input capacity of 3,514 MMBtu/hour, while firing natural gas (based on an ambient air temperature of 59°F, evaporative cooling, pressure of 14.7 pounds per square inch psi)the higher heating value (HHV) of natural gas, and 100% load). Emissions from each turbine are controlled with dry low-NO_x (DLN) combustion, oxidation catalyst, and selective catalytic reduction (SCR). EU Nos. 017 and 018 incorporate natural gas-fired duct burner (DB) with a nominal design heat input rating of 250 MMBtu/hour (based on the HHV of natural gas). The shared CT and DB combined-cycle stack is equipped with CEMS to measure and record NO_x emissions in addition to exhaust gas oxygen (O_2) content. Steam generated from the two heat recovery steam generators (HRSG) is routed to a common steam turbine, which has a nominal generating capacity of 415 MW. The total combined-cycle unit (Natural Gas Fired CT with HRSG (EU 017 and EU 018)) has a total gross nominal generating capacity of 1,183 MW. Natural gas heaters Nos. 1 and 2 (EU 019) have a design heat input of less than 10 MMBtu/hour. These gas heaters preheat natural gas prior to feeding the gas to the combined-cycle CTs. Each heater has a design heat input capacity of 7.8 MMBtu/hour and are only permitted to fire natural gas.

REGULATED EMISSIONS UNIT IDENTIFICATION NUMBERS AND DESCRIPTIONS

EU No.	Brief Description
Regulated Emissions Units	
002	Steam Electric Generator No. 2
004	Coal Storage Yard
005	Limestone, Wet Scrubber Sludge and Ash Handling and Storage
017	Natural Gas-Fired Combustion Turbine with Duct-Fired HRSG

EU No.	Brief Description
018	Natural Gas-Fired Combustion Turbine with Duct-Fired HRSG
019	Natural Gas Heater Nos. 1 and 2
020	Emergency Diesel Fire Pump (460 HP)
022	Emergency Propane Engine (82 HP)
Unregulated Emissions Units and Activities	
006	Emergency Generator Diesel Engine
007	Emergency Fire Pump Diesel Engine
008	General Plant Fugitive Emissions
021	Mechanical Draft Cooling Tower

APPLICABLE REGULATIONS

Based on the Title V air operation permit renewal application received on December 12, 2023, this facility is a major source of hazardous air pollutants (HAP). The existing facility is a prevention of significant deterioration (PSD) major source of air pollutants in accordance with Rule 62-212.400, F.A.C. A summary of applicable regulations is shown in the following table:

Regulation	EU Nos.
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	002, 004, 017, 018, 020, 022
40 CFR 60, Subpart Da, SOP for Electric Utility Steam Generating Units	002
40 CFR 60, Subpart Y, SOP for Coal Preparation and Processing Plants	004
40 CFR 60, Subpart IIII, SOP for Stationary CI ICE	020
40 CFR 60, Subpart JJJJ, SOP for Stationary SI ICE	022
40 CFR 60, Subpart KKKK, SOP for Stationary Combustion Turbines	017,018
40 CFR 60, Subpart TTTT, SOP for Greenhouse Gas Emissions for Electric Generating Units	017, 018
40 CFR 63, Subpart A, NESHAP General Provisions	002, 017, 018, 019, 020, 022
40 CFR 63, Subpart YYYY, Stationary Combustion Turbines	017 & 018
40 CFR 63, Subpart ZZZZ, Stationary Reciprocating Internal Combustion Engines	020, 022
40 CFR 63, Subpart DDDDD, Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	019
40 CFR 63, Subpart UUUUU, Coal- and Oil-Fired Electric Utility Steam Generating Units	002
40 CFR 75 Acid Rain	002, 017, 018
State Rule Citations	
Rule 62-204.800, F.A.C.	002, 004, 017 - 020, 022
Rule 62-212.400, F.A.C., PSD	005, 017 - 020
Rule 62-214.330, F.A.C., Acid Rain Compliance Plan and Compliance Options	002, 017, 018

PROJECT DESCRIPTION

The purpose of this permitting project is to renew the existing Title V permit for the above referenced facility and incorporate Permit Nos. 1070025-028-AC, 1070025-036-AC, and the Switchyard Emergency Generator.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Application for a Title V Air Operation Permit Renewal received: **December 12, 2023**
Additional Information Request dated: **February 9, 2024**
Additional Information Response received: **May 9, 2024**
Draft permit package issued on: **June 6, 2024**
Proposed permit package issued on: **August 27, 2024**
Final permit package issued on: **October 15, 2024**

PRIMARY REGULATORY REQUIREMENTS

Standard Industrial Classification (SIC) Code: 4911 – Electric, Gas, and Sanitary Services.

North American Industry Classification System (NAICS): 221112 – Fossil Fuel Electric Power Generation.

HAP: The facility is identified as a major source of hazardous air pollutants (HAP).

Title IV: The facility operates units subject to the acid rain provisions of the Clean Air Act.

Title V: The facility is a Title V major source of air pollution in accordance with Chapter 62-213, Florida Administrative Code (F.A.C.).

PSD: The facility is a PSD-major source of air pollution in accordance with Rule 62-212.400, F.A.C.

NSPS: The facility operates units subject to NSPS of 40 Code of Federal Regulations (CFR) 60.

NESHAP: The facility operates units subject to NESHAP of 40 CFR 63.

Sitting: This facility was originally certified pursuant to the power plant sitting provisions of Chapter 62-17, F.A.C.

CAM: Compliance Assurance Monitoring (CAM) does not apply to any of the units at the facility.

GHG: The facility is identified as a major source of greenhouse gas (GHG) pollutants.

PROJECT REVIEW

This permitting project is to renew the existing Title V air operation permit for the above referenced facility and include conditions and emission units from Permit Nos. 1070025-028-AC & 1070025-036-AC. Changes to the permit made as part of this revision are shown in ~~strike-through~~ format for deletions and in double underline format for additions. For ease of identification, all changes have also been highlighted in yellow within the permit document.

The renewal permit includes the following changes.

1. Changes to the Title V air operation permit are based on the Department's updated formats for a Title V air operation permit.

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Section III. Emission Units and Conditions

2. Subpart A (EU Nos. 001 & 002: Steam Electric Generator Nos. 1 & 2). Removed Steam Electric Generator No. 1 (EU 001) since the generator was permanently removed from service on January 12, 2024.
3. Added new Subparts D (Emission Units 017 & 018, Natural Gas-Fired CT with HRSG), E (Emission Unit 019, Natural Gas Heater Nos. 1 and 2), F (Emission Unit 020, Emergency Diesel Fire Pump (460 HP), and G (Emission Unit 022, Emergency Propane Engine (82 HP) incorporated in Permit Nos. 1070025-028-AC and 1070025-036-AC.

Section IV. Acid Rain Part

4. Removed "EU Nos 001 & 002: Steam Electric Generator Nos. 1 & 2" from: Phase II Acid Rain Application/Compliance Plan, and Phase II Acid Rain NO_X Compliance Plan.

Section V. Appendices

5. Updated the appendices to include the applicable federal regulations for the addition of new emission units.

Section I, Subsection A: Facility Description

6. Revised the facility description and added additional information from the permits requested to be included in this permit.

Subsection B. Summary of Emission Units.

7. Added the additional Emission Units from Project Nos. 1070025-028-AC & 1070025-036-AC.

Subsection C: Applicable Regulations.

8. Updated the regulation table by removing the Steam Generator No. 1 (EU 001) regulations and adding the applicable requirements for the new emission units incorporated in Permit Nos. 1070025-028-AC & 1070025-036-AC.

Section II: Facility-Wide Conditions.

9. Added Condition **FW10** (Steam Electric Generator No. 1 Shut Down) to allow the steam electric generator to remain on site until the facility has it removed.

Section III: Emissions Units and Specific Conditions.

Subsection A. Steam Electric Generator No. 2 (EU 002)

10. Added new Specific Conditions that incorporate the federal regulations (40 CFR 60 Subpart Da and 40 CFR 63 Subpart UUUUU) that this emission unit is applicable to.

11. Removed Rule 62-296.405(2), F.A.C., Existing Fossil Fuel Steam Generators with Greater than or Equal to 250 Million Btu Per Hour (MMBtu/hour) Heat Input, since the revised rule applies to only existing fossil fuel steam generators in existence prior to January 18, 1972.

12. Revised previous **Specific Condition A.3** (method of operation-allowable fuels) to separate into on spec used oil requirements to the proper section under test methods and procedures, **Specific Condition A.33,** and include 40 CFR 63 subpart UUUUU requirements for limited use liquid fuel oil. The condition has been revised as follows:

A.3. Methods of Operation - ~~Allowable~~ Fuels.

a. ~~The units fire~~ ~~c~~Coal~~,~~ ~~as the~~ primary fuel.

b. ~~The units may fire~~ No. 2 fuel oil.

(1) Secondary fuel.

(2) Limited-Use Liquid Oil-Fired Subcategory – NESHAP Subpart UUUUU. The oil-fired emission generating unit (EGU) has an annual capacity factor when burning oil of less than 8% of its maximum or nameplate heat input, whichever is greater, averaged over a 24-month block contiguous period.

c. ~~The units may fire~~ ~~o~~On-spec~~ification~~ used oil, maximum 500,000 gallons/year. ~~in accordance with the following requirements.~~

~~(1) "On-specification" used oil is defined as used oil that meets the 40 CFR 279 (Standards for the Management of Used Oil) specifications listed below.~~

~~Constituent / Property~~	~~Allowable Level *~~
~~Arsenic~~	~~5 ppm maximum~~

~~Cadmium~~	~~2 ppm maximum~~
~~Chromium~~	~~10 ppm maximum~~
~~Lead~~	~~100 ppm maximum~~
~~Total Halogens~~	~~1000 ppm maximum~~
~~Flash Point~~	~~100° F minimum~~
~~Polychlorinated Biphenyls (PCB)~~	~~< 50 ppm~~

~~* As determined by approved methods specified in EPA Publication SW-846 (Test Methods for Evaluating Solid Waste, Physical/Chemical Methods).~~

~~(2) Used oil that does not meet all of the following specifications is considered "off-specification" oil and shall not be fired in these units.~~

~~(3) The units shall be at normal operating temperatures to fire on-specification used oil that contains any quantifiable levels of PCB.~~

~~(4) Each unit shall fire no more than 500,000 gallons per calendar year.~~

~~[Rule 62-213.410(1) & 62-213.440(1), Methods of Operation, F.A.C.; 40 CFR 271.20(e)(3) & 40 CFR 279.11; PSD-FL-018A; 1070025-019-AC/PSD-FL-018B.]~~[Rules 62-204.800(11)(b), 62-212.400(PSD) & 62-213.410, F.A.C.; 40 CFR 63.10042; and Permit Nos. PSD-FL-018A & 1070025-019-AC (PSD-FL-018B)]

13. Revised and rearranged previous **Specific Conditions A.5** (Electrostatic Precipitators (ESPs), **A.6**. (Flue Gas Desulphurization (FGD) System), **A.7**. (Selective Catalytic Reduction (SCR) System), and **A.8** (Low NOx Burners).

A.5. ~~Electrostatic Precipitators (~~ESP~~s)~~. The permittee shall operate and maintain the ESP~~s~~ to control PM emissions from the boiler.~~for Units 1 and 2~~. ~~[Rule 62-4.070(1)&(3), F.A.C.]~~[Rule 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-018 & 1070025-004-AC]

A.6. ~~Flue Gas Desulphurization (~~FGD~~)~~ Systems. The permittee shall operate and maintain ~~FGD systems for Units 1 and 2 to meet the~~ an upgraded wet limestone FGD System to control SO_2 emissions~~ limit as authorized by Permit No. 1070025-004-AC/PSD-FL-372~~ with a control efficiency of approximately 95%. ~~[Permit No. 1070025-004-AC/PSD-FL-372, Specific Condition 3.A.2.]~~[Rule 62-212.400(PSD), F.A.C.; and Permit Nos. PSD-FL-018 & 1070025-004-AC]

A.7. ~~Selective Catalytic Reduction (~~SCR~~)~~ Systems. The permittee shall ~~tune,~~ operate and maintain an SCR system~~s for Units 1 and 2 to reduce~~ to control NOx emissions. ~~The SCR system shall be designed, constructed and operated to achieve the permitted levels for NOx described in this permit~~An SCR regent system shall consist of urea to ammonia processing system and an associated bulk storage system. The SCR system shall be operated for a maximum ammonia slip rate of ~~5 ppmvd @ 15% O_2~~5 parts per million dry gas volume (ppmvd) at 15% O_2. ~~[Permit No. 1070025-004-AC/PSD-FL-372, Specific Condition 3.A.3.]~~[Rule 62-212.400(AVOID PSD), F.A.C.; and Permit No. 1070025-004-AC]

A.8. ~~Low NOx Burners~~LNB System. The permittee shall ~~tune,~~ operate and maintain ~~low NO_x burners on Units 1 and 2~~a LNB to control emissions of NOx. ~~[Permit No. 1070025-004-AC/PSD-FL-372, Specific Condition 3.A.4.]~~ [Rule 62-212.400(AVOID PSD), F.A.C.; and Permit No. 1070025-004-AC]

14. Revised, updated, and combined the three NO_x limitation sections (previously **A.15, A.16,** and **A.17**) into one **(**new **A.11).**

A.15. NOx Emissions~~ – NSPS Subpart Da~~. As determined by CEMS, NOx emissions shall not exceed the following~~ emission limits~~:

a. ~~*NOx emission limits*~~*Coal*. 0.60 lb/MMBtu based on a 30-boiler operating day rolling average. [Rule 62-204.800(8)(b), F.A.C.; and 40 CFR 60.44Da(a)(1)]

~~(1) Bituminous coal emission limit for heat input: 260 ng/J (0.60 lb/MMBtu); and,~~

~~(2) All other liquid fuels emission limit for heat input: 130 ng/J (0.30 lb/MMBtu).~~

b. ~~*NOx reduction requirement*~~*Liquid Fuels*. 0.30 lb/MMBtu based on a 30-boiler operating day rolling average. [Rule 62-204.800(8)(b), F.A.C.; and 40 CFR 60.44Da(a)(1)]

~~(1) Solid fuels: 65% reduction of potential combustion concentration; and,~~

~~(2) Liquid fuels: 30% reduction of potential combustion concentration.~~

~~Compliance with the emission limitation and percent reduction requirements are both determined on a 30-day rolling average basis in accordance with the NSPS Subpart Da provisions. [40 CFR 60.44Da(a)(1) & (2).]~~

c. *Coal or Coal with Fuel Oil.*

(1) 0.07 lb/MMBtu based on a 12-month rolling average. [Rule 62-212.400(AVOID PSD), F.A.C.; and Permit No. 1070025-012-AC]

(2) 0.46 lb/MMBtu based on an annual average. [Rule 62-204.800(20), F.A.C.; and 40 CFR 76.7(a)(2)&(b)]

d. *Bituminous Coal and Liquid Fuels Combusted Simultaneously*. Based on a 30-boiler operating day rolling average:

$$E_n = \frac{130x + 260z}{100}$$

Where:

En = Applicable NO_X emissions limit when multiple fuels are combusted simultaneously (ng/J heat input);

x = Percentage of total heat input derived from the combustion of fuels subject to the 130 nanograms per Joule (ng/J) (0.30 lb/MMBtu) heat input standard;

z = Percentage of total heat input derived from the combustion of fuels subject to the 260 ng/J heat input standard; and

[Rule 62-204.800(8)(b), F.A.C.; and 40 CFR 60.44Da(a)(2)]

15. Revised, updated, and combined the SO_2 limitation sections (previously **Specific Conditions A.11, A.12, A.13, and A.14**) into one, under new **Specific Condition A.12**.

16. Revised and updated PM emissions section (previously **Specific Condition A.9**), under current **Specific Condition A.13**.

17. Added **Specific Condition A.14 (**Mercury Emissions) pursuant to 40 CFR 63, Subpart UUUUU, Coal- and Oil-Fired Electric Utility Steam Generating Units**.**

18. Added **Specific Condition A.15** (Ammonia Slip) emissions limitation pursuant to Permit No. 1070025-004-AC**.**

19. Updated **Specific Condition A.18**, (SO_2 CEMS), previously **Specific Condition A.20**.

A.20. SO_2 CEMS. ~~The permittee shall calibrate, maintain and operate a continuous monitoring system, and record the output of the system, for measuring SO_2 emissions discharged to the atmosphere from each unit. The permittee shall use data collected from each CEMS to continuously demonstrate compliance~~

~~with the emissions standards specified in this permit.~~The CEMS shall include the continuous measurement and recording of the CO_2 content of the flue gases at each location where NO_X emissions are monitored.

a. ~~The CEMS shall include the continuous measurement and recording of the O_2 or CO_2 content of the flue gases at each location where NOx emissions are monitored.~~ *NSPS Subpart Da.*

(1) SO_2 emissions are monitored at both the inlet and outlet of the SO_2 control device.

(2) SO_2 emissions shall be monitored at both the inlet and outlet of the SO_2 control device. An "as fired" fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19 (Appendix A in 40 CFR 60) may be used to determine potential SO_2 emissions in place of the required continuous SO_2 emission monitor at the inlet to the SO_2 control device.

(3) If the SO_2 CEMS is certified according to the requirements of 40 CFR 75.209(c)(1) and Appendix A to 40 CFR 75, and is continuing to meet the ongoing QA requirements of 40 CFR 75.21 and Appendix B to 40 CFR 75, that CEMS may be used to meet the requirements of this section, provided that:

(a) The CO_2 CEMS is installed, calibrated, maintained and operated at the same location, according to 40 CFR 60.49Da(d); and

(b) For sources subject to an SO_2 emission limit in lb/MMBtu:

i. When relative accuracy testing is conducted, SO_2 concentration data and CO_2 data are collected simultaneously.

ii. In addition to meeting the applicable SO_2 and CO_2 relative accuracy specifications in 40 CFR 75, Appendix B, Figure 2, the relative accuracy (RA) standard in 40 CFR 60, Appendix B, Section 13.2 of Performance Specification 2 is met when the RA is calculated on a lb/MMBtu basis.

(c) The reporting requirements in Conditions Error! Reference source not found. - Error! Reference source not found. are met. The SO_2 and, if required, CO_2 (or O_2) data reported to meet the requirements of Conditions Error! Reference source not found. - Error! Reference source not found. shall not include substitute data values derived from the missing data procedures in 40 CFR 75 Subpart D, nor shall the SO_2 data have been bias adjusted according to the procedures of 40 CFR 75.

b. ~~The permittee has installed and certified a SO_2 CEMS according to the requirements of 40 CFR 75.20(c)(1) and appendix A to 40 CFR Part 75, and shall continue to meet the ongoing quality assurance requirements of 40 CFR 75.21 and Appendix B to 40 CFR Part 75, subject to the special provisions in 40 CFR 60.49a (b)(4). Data collected by the Acid Rain SO_2 CEMS shall be used to demonstrate compliance with the SO_2 standards.~~ *NESHAP Subpart UUUUU.*

(1) *SO_2 CEMS.*

(a) For the SO_2 CEMS used to provide data under 40 CFR 63 Subpart UUUUU, the CEMS installation requirements for these exhaust configurations as specified in 40 CFR 63.10010(a).

(b) The permittee shall install the monitor at the outlet of the EGU, downstream of all emission control devices, and certify, operate, and maintain the CEMS according to 40 CFR 75.

(c) For on-going QA, the SO_2 CEMS must meet the applicable daily, quarterly, and semiannual or annual requirements in 40 CFR 75, Appendix B. Sections 2.1 through 2.3, with the following addition: You must perform the linearity checks required in 40 CFR 75, Appendix B. Section 2.2 if the SO_2 CEMS has a span value of 30 ppm or less.

(d) Calculate and record a 30-boiler operating day rolling average SO_2 emission rate in the units of the standard, updated after each new boiler operating day. Each 30-boiler operating day rolling average emission rate is the average of all of the valid hourly SO_2 emission rates in the 30 boiler operating day period.

(e) Use only unadjusted, quality-assured SO_2 concentration values in the emissions calculations; do not apply bias adjustment factors to the 40 CFR 75 SO2 data and do not use 40 CFR 75 substitute data values. For startup or shutdown hours (as defined in 40CFR 63.10042) the default gross output and the diluent cap are available for use in the hourly SO_2 emission rate calculations, as described in 40 CFR 63.10007(f). Use a flag to identify each startup or shutdown hour and report a special code if the diluent cap or default gross output is used to calculate the SO_2 emission rate for any of these hours.

(2) *CO_2 CEMS*. The CO_2 CEMS used to convert measured pollutant concentrations to the units of the applicable emissions limit, the CO_2 concentrations shall be monitored at a location that represents emissions to the atmosphere, *i.e.*, at the outlet of the EGU, downstream of all emission control devices. The permittee shall certify, maintain, and operate the CEMS according to 40 CFR 75. Use only quality-assured CO_2 data in the emissions calculations; do not use 40 CFR 75 substitute data values.

~~c. SO_2 emissions shall be monitored at both the inlet and outlet of the SO_2 control device. An "as fired" fuel monitoring system (upstream of coal pulverizers) meeting the requirements of Method 19 (Appendix A in 40 CFR 60) may be used to determine potential SO_2 emissions in place of the required continuous SO_2 emission monitor at the inlet to the SO_2 control device.~~

~~d. The continuous monitoring systems shall be operated and data recorded during all periods of operation including periods of startup, shutdown, malfunction, or emergency conditions, except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments.~~

~~e. To demonstrate compliance with the 0.20 lb/MMBtu SO_2 emission limit given in Specific Condition Error! Reference source not found., the testing, monitoring, recordkeeping, etc., shall be conducted in accordance with the requirements of 40 CFR 63, Subpart UUUUU.~~

~~[Rules 62-4.070(1)&(3), 62-212.400 and 62-297.520, F.A.C.; Permit No. 1070025-004-AC/PSD-FL-372, Specific Condition 3.A.15.; 40 CFR 75; NSPS Subparts A and Da in 40 CFR 60; and, 40 CFR 63, Subpart UUUUU.]~~[Rules 62-4.070(3), 62-212.400, & 62-204.800(8)(b) & (11)(b), F.A.C.; 40 CFR 75; 40 CFR 60.43Da(b); 40 CFR 63.10010(a)&(f); and Permit No. 1070025-004-AC]

20. Added federal rule citation to clarify what portions of 40 CFR 63 Subpart UUUUU the emission unit is applicable to.

21. Updated **Specific Condition A.19** (NOx CEMS), previously **Specific Condition A.21**.

22. Removed Other Monitoring Requirements section and previous **Specific Condition A.22** (On-specification Used Oil) as it has been combined and included under new **Specific Condition A.33** (On-Spec Used Oil).

23. Updated **Specific Condition A.25** (Annual Compliance Tests Required), previously **Specific Condition A.27**.

A.22. Annual Compliance Tests Required. ~~Except as provided in this permit, during each calendar year (January 1st to December 31st), each emissions unit shall be tested to demonstrate compliance with the emissions standards for PM and ammonia slip. [Rules 62-213.440, and 62-297.310(8), F.A.C.; and, Permit No. 1070025-004-AC/PSD-FL-372, Specific Condition 3.A.11. & 14.]~~

~~*(Permitting Note: Should the PM testing option be conducted for compliance with NESHAP (MACT) 40 CFR 63 Subpart UUUUU, the permittee may utilize the results from the NESHAP tests to satisfy*~~

~~*compliance with the annual PM test. Alternatively, the permittee may conduct PM tests per the methods in Specific Condition A.27. for compliance with Specific Condition A.31.}*~~During each calendar year (January 1st to December 31st), the boiler shall be tested to demonstrate compliance with the emissions standards for visible emissions, Hg, and ammonia slip in Conditions Error! Reference source not found., Error! Reference source not found., and Error! Reference source not found., respectively.

a. *Hg Emissions – LEE Status*. For a qualifying LEE for Hg emissions limits in Condition Error! Reference source not found., the permittee conduct a 30-day performance test using Method 30B at least once every 12 calendar months to demonstrate continued LEE status.

b. *Visible Emissions*. The COMS shall be used to demonstrate continuous compliance with the opacity limit in Condition Error! Reference source not found..

c. *NOx CEMS*. The NO_x CEMS shall be used to demonstrate continuous compliance with the NOx emission limits in Condition Error! Reference source not found..

d. *SO2 CEMS*. The SO_2 CEMS shall be used to demonstrate continuous compliance with the SO2 emission limits in Condition Error! Reference source not found..

[*Rules* 62-4.070, 62-204.800(8)(b) & (11)(b), 62-297.310(8), F.A.C.; 40 CFR 63.10000(c)(ii); and Permit No. 1070025-004-AC]

Subsection B. Coal Storage Yard (EU 004)

24. Revised the emission unit description.

25. Rearranged the permitting note describing the state and federal rule citations applicable to this emission unit.

26. Combined previous **Specific Conditions B.7** and **B.8** (Compliance Test Prior to Renewal and Operation Rate During Testing) under new **Specific Condition B.9** (Compliance Tests Prior to Renewal).

Subsection C. Limestone, Wet Scrubber Sludge and Ash Handling and Storage Activities (EU 005)

27. Revised the emission unit description for clarity.

28. Rearranged Schedule and Equipment sections from Permit No. 1070025-038-AV as these were redistributed into other subsections.

29. Removed previous **Specific Condition C.1** because use of this equipment commenced during the 3rd quarter of 2019 and the initial testing was complete.

30. From Permit No. 1070025-038-AV, removed **Operations** section and incorporated the **Specific Conditions C.9** (Dry-Ash Handling System), **C.10** (Loadout Spout Operation for Fly Ash Silo V-143), and **C.11** (Dust Collection/Collector System Operations) under new **Specific Condition C.3** (Methods of Operation); and changed the permit citations for previous **Specific Conditions C.10** to Permit No. 1070025-026-AC and **C.11** to include Permit No1070025-018-AC and removed permit citation 1070025-030-AC.

31. Added new Specific Conditions: FGD Sludge Baghouse (**Specific Condition C.5),** Fly Ash Silo V-142 Baghouse **(Specific Condition C.6),** Quicklime Silo V-152 Baghouse **(Specific Condition C.7),** Fly Ash V-141 Controls **(Specific Condition C.8),** Fly Ash V-142 Controls **(Specific Condition C.9),** Fly Ash Silo V-143 Controls **(Specific Condition C.10),** Dust Collector (FGD-008) **(Specific Condition C.11),** Fly Ash Silo V-142 Loadout Spout Dust Collector (FGD-012) **(Specific Condition C.12),** Fly Ash Silo V-143 Baghouse (FGD-013) **(Specific Condition C.13)**, and Circumvention **(Specific Condition C.14).**

32. Rearranged rule citation and permit citation in previous **Specific Conditions C.13** (Baghouse Pressure Differential (now **Specific Condition C.16**)) and **Specific Condition C.14** (Dust Collector Pressure Differential (now **Specific Condition C.17**)).

33. Added new **Specific Condition C.18** (Dust Collector Operation) monitoring requirements pursuant to Permit No. 1070025-029-AC.

New Subsection D. Combined Cycle Unit No. 1, CT-1A (EU 017) & CT-1B (EU 018)

34. Incorporated the natural gas fired Combined Cycle Unit No. 1, CT-1A (EU 017) & CT-1B (EU 018) with duct fired HRSG authorized in Permit 1070025-028-AC and the applicable federal requirements of 40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines, Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units; 40 CFR 75 Acid Rain Monitoring Provisions: Acid Rain Phase II SO_2 and Acid Rain Phase II NOx.

New Subsection E. Natural Gas Heater Nos. 1 and 2 (EU 019)

35. Incorporated two natural gas heaters authorized in Permit 1070025-028-AC and the applicable federal requirements of 40 CFR 63, Subpart DDDDD, Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters.

New Subsection F. Emergency Fire Water Pump Engine (EU 020)

36. Incorporated the emergency diesel fire pump authorized in Permit 1070025-028-AC and the applicable federal requirements of 40 CFR 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE).

New Subsection G. Emergency Propane Engine (82 HP) (EU 022)

37. Incorporated the new emergency switchyard engine authorized in Permit 1070025-036-AC and the applicable requirements of 40 CFR 60 Subpart JJJJ, Standards of Performance for Stationary Spark Ignition (SI) ICE.

Section IV. Acid Rain Part.

38. Added Natural Gas-Fired CT with Duct-Fired HRSG Nos. 1 & 2 (EU 017 and 018) and removed Steam Electric Generator No. 1 (EU 001) as it has been permanently removed from service as of January 12, 2024.

Section V. Appendices

39. Updated and included all appendices applicable to this facility including the EPA federal regulations.

CONCLUSION

This project renews the Title V air operation permit No. 1070025-034-AV, which was effective on November 26, 2019. This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statues (F.S.), and Chapters 62-4, 62-210, and 62-213, F.A.C.