STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

ONGOING DATA REQUIREMENTS
ANNUAL REPORT

ANNUAL REVIEW OF FACILITY EMISSIONS AND REQUEST TO TERMINATE ONGOING DATA REQUIREMENTS FOR GULF POWER'S CRIST ELECTRIC GENERATING PLANT AND DUKE ENERGY FLORIDA'S CRYSTAL RIVER POWER PLANT UNDER EPA'S DATA REQUIREMENTS RULE FOR THE 2010 ONE-HOUR SO_2 NAAQS

July 1, 2019

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1. Background

On August 21, 2015, the U.S. Environmental Protection Agency (EPA) promulgated the "Data Requirements Rule" (DRR) (80 Fed. Reg. 51.052; codified at 40 C.F.R. Part 51, Subpart BB), which requires states to evaluate compliance with the 2010 one-hour sulfur dioxide (SO_2) National Ambient Air Quality Standard (NAAQS) in areas surrounding certain large SO_2 sources. Pursuant to the DRR, states could choose to perform area characterizations around the specified sources using either air quality monitoring or air dispersion modeling. The Florida Department of Environmental Protection (Department) opted to characterize all areas of Florida using air dispersion modeling.

Pursuant to the ongoing data requirements of the DRR in 40 CFR 51.1205, the Department must submit an annual report to EPA documenting the SO_2 emissions of sources in areas that EPA designated unclassifiable/attainment based on modeling of actual SO_2 emissions resulting in maximum modeled concentrations below the one-hour SO_2 NAAQS. The six facilities subject to the ongoing data requirements are:

- Duke Energy's Crystal River Power Plant (Crystal River);
- Jacksonville Electric Authority's (JEA) Northside Generating Station/St. Johns River Power Park (NGS/SJRPP);
- Gulf Power Company's Crist Electric Generating Plant (Crist);
- Nutrien (formerly PotashCorp [PCS]) White Springs Agricultural Chemicals Suwannee River/Swift Creek Complex (Nutrien);
- WestRock CP, LLC's Fernandina Beach Mill (WestRock); and
- Lakeland Electric's C.D. McIntosh Power Plant (McIntosh).

Section 2 of this report documents SO_2 emissions decreases at JEA, Crist, Nutrien, WestRock and McIntosh and confirms that the areas around these facilities remain in attainment of the one-hour SO_2 NAAQS. Pursuant to 40 CFR 51.1205(b)(2), the Department also requests EPA's approval to terminate the ongoing data requirements for Crist based on the DRR modeling demonstrating that air quality values at all receptors are less than 50 percent of the one-hour SO_2 NAAQS, as further discussed in **Section 2**.

The DRR states in 40 CFR 51.1205(c) that "[a]ny air agency that demonstrates that an area would meet the 2010 SO_2 NAAQS with allowable emissions is not required pursuant to paragraph (b) of this section to submit future annual reports for the area." **Section 3** of this report summarizes updated modeling demonstrating that with current maximum allowable SO_2 emissions, the area around Crystal River is meeting the 2010 one-hour SO_2 NAAQS. Therefore, pursuant to 40 CFR 51.1205(c), the Department is requesting EPA's approval to terminate the ongoing data requirements under the DRR for the 2010 one-hour SO_2 NAAQS for Crystal River.

2. Annual SO_2 Emissions Review

The Department's DRR modeling demonstrations for JEA, Crist, Nutrien, WestRock and McIntosh, submitted to EPA on January 13, 2017, used actual SO_2 emissions from 2012 to 2014.

Emissions for all facilities have substantially decreased in 2016 to 2018 compared to 2012 to 2014 (**Table 1**)[1]. As summarized below, SO_2 emissions decreases are primarily due to implementation of controls and limits to comply with the Mercury and Air Toxics Standards (MATS) Rule, the Nassau County Nonattainment Area State Implementation Plan (NAA SIP) or an EPA consent decree.

Table 1. Comparison of 2012 – 2014 and 2016 – 2018 SO_2 emissions (tons per year) for DRR facilities requiring annual review.

County	Facility	2012	2013	2014	2012-2014 Average	2016	2017	2018[a]	2016-2018 Average	Percent Change
Duval	JEA	13,835	16,459	20,978	17,091	5,880	4,999	2,474	4,451	-74.0%
Escambia	Crist	947	1,962	3,086	1,998	835	543	707	695	-65.2%
Hamilton	Nutrien	3,921	3,763	2,487	3,390	1,566	1,753	1,982	1,767	-47.9%
Nassau	WestRock (Total)	3,573	3,671	3,797	3,680	2,279	2,297	1,741	2,106	-42.8%
Nassau	WestRock #4 Recovery Boiler[b]	101	98	103	101	69	2	25	32	-68.3%
Nassau	WestRock #5 Power Boiler[b]	82	68	73	74	127	47	16	63	-14.9%
Nassau	WestRock #5 Recovery Boiler[b]	76	103	113	97	45	2	54	34	-64.9%
Nassau	WestRock #7 Power Boiler[b]	3,314	3,402	3,507	3,408	2,034	2,241	1,641	1,972	-42.1%
Polk	McIntosh (Total)	5,155	5,793	2,157	4,368	1,275	1,459	1,656	1,463	-66.5%
Polk	McIntosh Unit 2[c]	1.8	1.3	0.7	1.3	0.5	0.3	0.0	0.3	-78.9%

[a]2018 emissions data are preliminary.
[b]In the DRR modeling for WestRock, only these units were modeled using actual emissions; all other units were modeled using maximum allowable emission rates.
[c]In the DRR modeling for McIntosh, only Unit 2 was modeled using actual emissions; all other units were modeled using maximum allowable emission rates.

In 2014, the Department permitted JEA to reintroduce fly ash into Boilers 1 and 2 at NGS, which acts as an additional SO_2 control, thus reducing emissions. In 2016, the Department incorporated MATS provisions into the facility's Title V permit. In 2018, JEA retired both units at SJRPP, reducing emissions to just those from NGS.

[1] All emissions data is from the facilities' CEMS. Hourly CEMS data for2012 – 2014 were reported directly to the Department for DRR modeling purposes. 2016 – 2018 data are from the facilities' reports to CAMD for EGUs, and from the facilities' Annual Operating Report (AOR) submissions to the Department for non-EGU facilities. Rule 62-210.370, F.A.C., requires that facilities report their annual emissions using CEMS if available.

As part of a consent decree with EPA, Nutrien (formerly PCS) completed an upgrade to Sulfuric Acid Plant (SAP) F in 2017, reducing emissions by more than 35 percent. SAP E will also be upgraded in 2019, which will further decrease the facility's emissions.

In 2015, as part of the Nassau County NAA SIP, the Department issued an air construction permit to WestRock to implement a variety of controls, including improvements to the recovery boilers, installation and operation of a piping system and to transport non-condensable gases for combustion in the No. 7 Power Boiler, and a scrubber system to remove total reduced sulfur from the non-condensable gas stream prior to combustion, decreasing SO_2 emissions. **Table 1** also gives emissions at the unit level for emissions units that were modeled using actual emissions; emissions units not listed were modeled using allowable emission rates.

In 2012, the Department issued an air construction permit to McIntosh to remove petroleum coke as an authorized fuel for Unit 3 in order to reduce SO_2 emissions, and Unit 1 was retired in 2015. Additionally, in 2015, the Department issued an air construction permit to McIntosh to upgrade their wet flue gas desulfurization (FGD) system to reduce SO_2 emissions for compliance with MATS provisions. In the original DRR modeling, only Unit 2 was modeled using actual emissions; all other units were modeled using allowable emission rates. **Table 1** shows that the emissions from Unit 2 have decreased; therefore, the modeling in the DRR submittal is still valid.

As described above, the decrease in SO_2 emissions at JEA, Nutrien, WestRock and McIntosh is largely due to implementation of controls and lower permitted SO_2 emission limits; therefore, SO_2 emissions would not be expected to increase back to levels seen in 2012 to 2014. As such, the Department finds the DRR modeling submitted on January 13, 2017 to be conservative and no additional modeling is needed to characterize the air quality for these areas. The Department recommends that the areas around these facilities retain their unclassifiable/attainment designations. These areas will continue to be subject to the ongoing data requirements under the DRR.

The DRR states in 40 CFR 51.1205(b)(2) that "[a]n air agency will no longer be subject to the requirements of this paragraph (b) for a particular area if it provides air quality modeling demonstrating that air quality values at all receptors in the analysis are no greater than 50 percent of the one-hour SO_2 NAAQS, and such demonstration is approved by the EPA Regional Administrator." On January 13, 2017, the Department submitted to EPA DRR modeling with Crist's 2012 – 2014 actual SO_2 emissions demonstrating that the maximum modeled concentration was 45 percent of the NAAQS. SO_2 emissions at Crist decreased dramatically after 2014 due to MATS compliance. Because 2016 – 2018 emissions at Crist have decreased by over 60 percent compared to the 2012 – 2014 emissions that were modeled, the Department has reasonable assurance that the maximum concentration of SO_2 surrounding Crist remains less than 50 percent of the NAAQS. Therefore, pursuant to 40 CFR 51.1205(b)(2), the Department requests EPA's approval to terminate the ongoing data requirements under the DRR for Crist.

3. Crystal River Maximum Allowable SO_2 Emissions Modeling Demonstration

Duke Energy Florida owns and operates Crystal River under Title V Permit No. 0170004-053-AV issued by the Department on April 4, 2017. On January 5, 2017, the Department issued Air Construction Permit No. 0170004-054-AC (**Appendix A**) to Crystal River to advance the retirement date for Units 1 and 2 from December 31, 2020 to December 31, 2018 and to reduce the maximum permitted SO_2 emission rate for Units 4 and 5 to 0.25 lb/MMBtu based on a 30-day rolling average.[2] In addition, on February 21, 2017, the Department issued Air Construction Permit No. 0170004-055-AC (**Appendix B**) to Duke to install and operate four natural gas-fired combined-cycle combustion turbines (CCCTs).[3] These conditions were made federally enforceable through Crystal River's current Title V permit (Title V Operation Permit No. 0170004-053-AV).[4] The upcoming Title V permit renewal (draft Title V Permit No. 0170004-058-AV) revokes the portion of the Title V permit for Units 1 and 2 (**Appendix C**). In addition, Duke Energy Florida has certified that Units 1 and 2 have permanently shut down as of December 31, 2018, as shown in EPA form 7610-20, Retired Unit Exemption, for each unit (**Appendix D**).

The Department has completed a modeling demonstration that accounts for these changes with a maximum allowable SO_2 emission rate scenario for Crystal River effective January 1, 2019. This report summarizes the Department's modeling demonstration, which indicates that the area is in attainment of the 2010 SO_2 NAAQS.

3.1. Model Selection

EPA recommends the use of the American Meteorological Society/Environmental Protection Agency Regulatory Modeling System (AERMOD), including the pre-processing programs AERMET, AERMINUTE, AERMAP, and AERSURFACE, for all regulatory modeling of inert pollutants in the near field.[5] Accordingly, the Department utilized the latest version of AERMOD (v.18081) using the regulatory default options for characterizing the area around Crystal River.

3.2. Modeled Facilities

Crystal River is the only DRR-applicable facility in Citrus County and the only significant source of SO_2 in the area. *Appendix W to 40 C.F.R. Part 51: The Guideline on Air Quality Models*[6] (Appendix W) states and the *SO_2 NAAQS Designations Modeling Technical Assistance Document*[7] (Modeling TAD) reiterates, that the number of sources to explicitly model should be

[2] *See* Air Construction Permit No. 0170004-054-AC, issued by the Florida Department of Environmental Protection on January 5, 2017.
[3] *See* Air Construction Permit No. 0170004-055-AC, issued by the Florida Department of Environmental Protection on February 21, 2017.
[4] *See* Title V Permit No. 0170004-053-AV, issued by the Florida Department of Environmental Protection on April 24, 2017.
[5] *See* Appendix W to 40 C.F.R. 51, Section 3.2.
[6] *See* Appendix W to 40 C.F.R. 51, Section 3.2.
[7] *See* https://www.epa.gov/sites/production/files/2016-06/documents/so2modelingtad.pdf

small except in unusual cases. An analysis of emissions data and spatial proximity was performed for all nearby sources to determine which sources to include in the modeling demonstration. All sources within 20 kilometers of the primary facility that had 2017 SO_2 emissions of at least 100 tons were included. All other sources within 35 kilometers were then subjected to a widely used screening procedure known as 20d. This method suggests that if a source's annual emissions in tons (Q) is less than its distance from the primary source in kilometers (d) multiplied by 20, then it is unlikely to have a significant concentration gradient in the area of concern. Finally, for all sources not already identified for inclusion, the Department considered emissions data, stack parameters, and spatial proximity (both to other sources and the background monitor), and used professional judgment to determine whether they should be included.

The Department determined that there are no other sources of SO_2 emissions that have the potential to cause a significant concentration gradient in the area of interest (**Figure 1**). All other sources within 35 kilometers of Crystal River emitted less than 1 ton of SO_2 in 2017 (**Table 2**) and are represented in the added monitored background concentrations discussed in **Section 3.9**.

Figure 1: 2017 SO_2 emission sources in and around Citrus County, Florida.

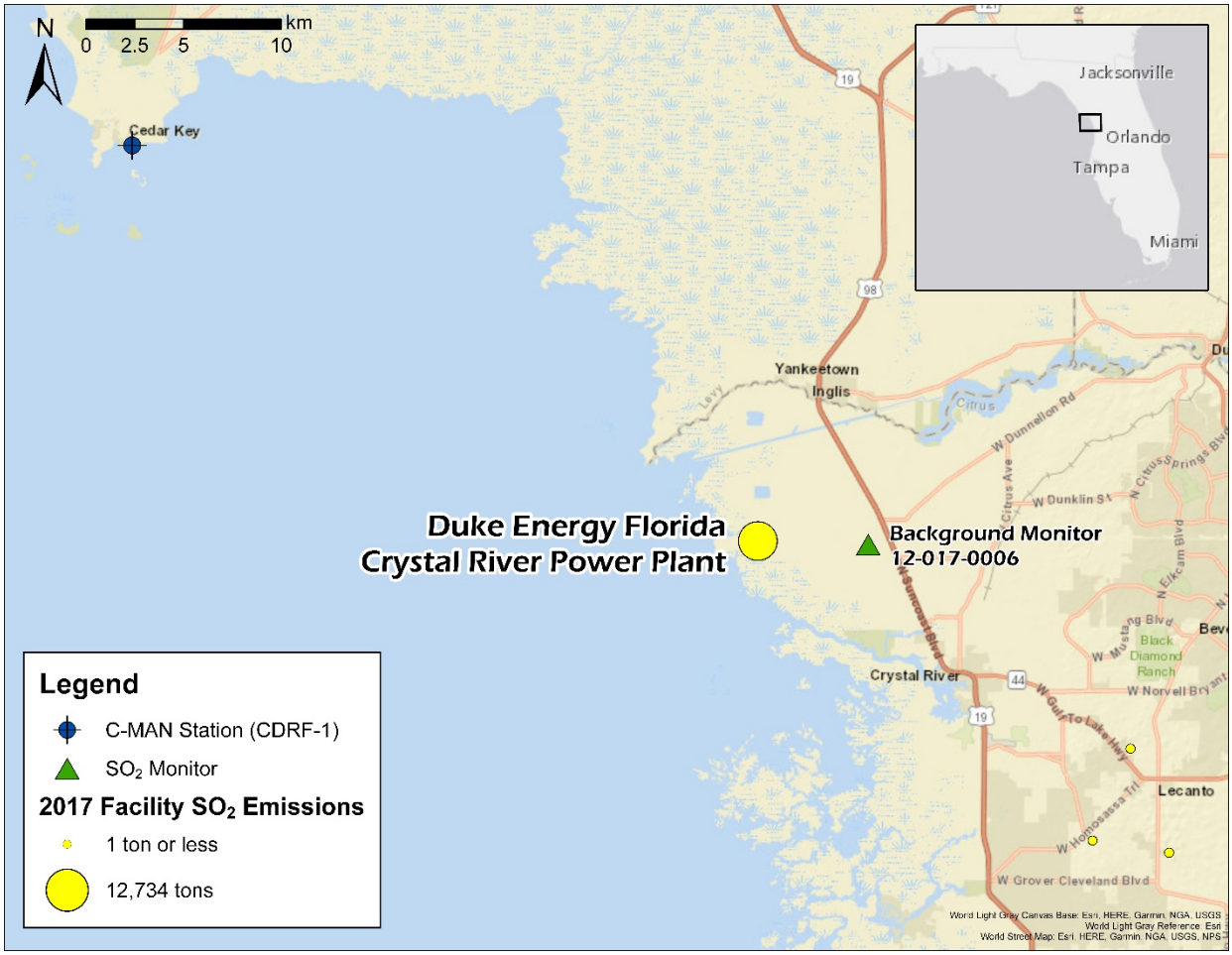


Table 2: 2017 sources of SO_2 emissions within 35 kilometers of Duke's Crystal River.

Facility ID	Facility Name	Distance from Crystal River (km) (d)	20d	2017 SO_2 Emissions (tons) (Q)	Q > 20d
017-0004	Duke Crystal River	0	0	12,733.94	Yes
017-0035	Florida Gas Transmission Station 26	20	400	1.04	No
017-0021	Central Materials	25	500	0.17	No
017-0366	Citrus County Central Landfill	28	560	0.10	No

3.3. Meteorological Input Data

Though Florida has a relatively dense network of high-quality National Weather Service (NWS) Automated Surface Observing System (ASOS) stations for use in air dispersion modeling demonstrations, there is not a representative station near Crystal River due to its location in a very rural area. The nearest NWS ASOS station at Hernando County Airport (BKV) is nearly 60 kilometers southeast and significantly further inland than Crystal River. Due to Florida's uniform flat topography, the most important geographical influence on mesoscale meteorological conditions is proximity to the coastline. For these reasons, the Department determined that the BKV ASOS site would not be sufficiently representative of the atmospheric conditions found near Crystal River and would need to be supplemented with surface observations from a more representative station.

The only meteorological station in the area with complete, representative, quality-controlled surface data is the Cedar Key Coastal-Marine Automated Network (C-MAN) station (CDRF-1) operated by the National Data Buoy Center (NDBC). This station is located approximately 38 kilometers northwest of Crystal River in a similar coastal environment. CDRF-1 is a limited station that records only temperature, dew point, atmospheric pressure, wind speed and wind direction. The Department input the 2015-2017 data for these parameters as onsite data into AERMET v.18081 along with the BKV dataset as NWS data using the ONSITE and SURFACE keywords respectively.

The raw data for the CDRF-1 station were retrieved from the NDBC station history site in text format. The raw data for BKV were retrieved from the National Climatic Data Center's (NCDC) file transfer protocol site in the standard integrated surface hourly data format (ISHD). Upper air parameters were derived from twice daily radiosonde observations (RAOB) from the nearest NWS atmospheric sounding location in Ruskin, Florida (TBW) downloaded from the National Oceanic and Atmospheric Administration's (NOAA) Earth System Research Laboratory (ESRL) website. Missing 12Z soundings were filled with archived modeled soundings from NOAA's Air Resources Laboratory (ARL) website prior to processing in AERMET.

Default options and settings were used when processing AERMET with the exception of the following:

- THRESH_1MIN 0.5 – Minimum wind speed threshold: 0.5 m/s
- METHOD REFLEVEL SUBNWS – NWS data are substituted for missing onsite data

- METHOD WIND_DIR RANDOM – Wind directions are randomized to correct rounding
- NWS_HGT WIND 10 – Sets ASOS anemometer height to 10 meters

EPA has established criteria for the use of meteorological data for modeling purposes that states that meteorological data should be 90 percent complete on a quarterly basis.[8] The combined 2015-2017 CDRF-1/BKV dataset satisfies this completeness requirement.

3.3.1. Surface Characteristics

AERMET requires information about the surface characteristics of the land surrounding the meteorological station (CDRF-1). The Department used the recommended AERMET preprocessing program AERSURFACE v.13016 to extract estimates of the Bowen ratio, surface roughness, and albedo from the 1992 National Land Cover Dataset (NLCD) for Florida. Per EPA guidance, because the Bowen ratio is dependent upon surface moisture and precipitation patterns, each year was classified as wet, dry, or average by comparing the annual precipitation to the 1981-2010 climatological record at the site. The default seasonal categories for each month were changed to reflect the subtropical climate of Citrus County. All inputs to AERSURFACE are summarized in **Table 3**.

Table 3: AERSURFACE inputs for 2015-2017 CDRF-1 AERMET dataset.

Parameter	Value
Coordinate System	LATLON
Meteorological Station Latitude (Degrees)	29.1360
Meteorological Station Longitude (Degrees)	-83.0290
Horizontal Datum	NAD83
Radius of Study Area for Surface Roughness (km)	1
Number of Sectors	12
Temporal Resolution	Monthly
Continuous Snow Cover for at Least One Month	No
Late Autumn or Winter Without Snow	1,2
Transitional Spring	3,4
Midsummer	5,6,7,8,9
Autumn	10,11,12
Located at an Airport	No
Arid Region	No
2015 Surface Moisture	Wet
2016 Surface Moisture	Average
2017 Surface Moisture	Dry

3.3.2. Site Representativeness

The surface characteristics were also extracted for the area around Crystal River so that a comparison could be done to determine if the meteorological data recorded at CDRF-1 are representative of the meteorological conditions in the modeling domain. The resulting average

[8] Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, EPA-454/R-99-005, *Meteorological Monitoring Guidance for Regulatory Modeling Applications* (February 2000).

surface characteristics at both sites are similar and are summarized in **Table 4**. Based on this analysis and the aforementioned geographical influences, the CDRF-1/BKV meteorological dataset was considered to be representative of the domain for this modeling demonstration.

Table 4: Average surface characteristics from AERSURFACE for Citrus County.

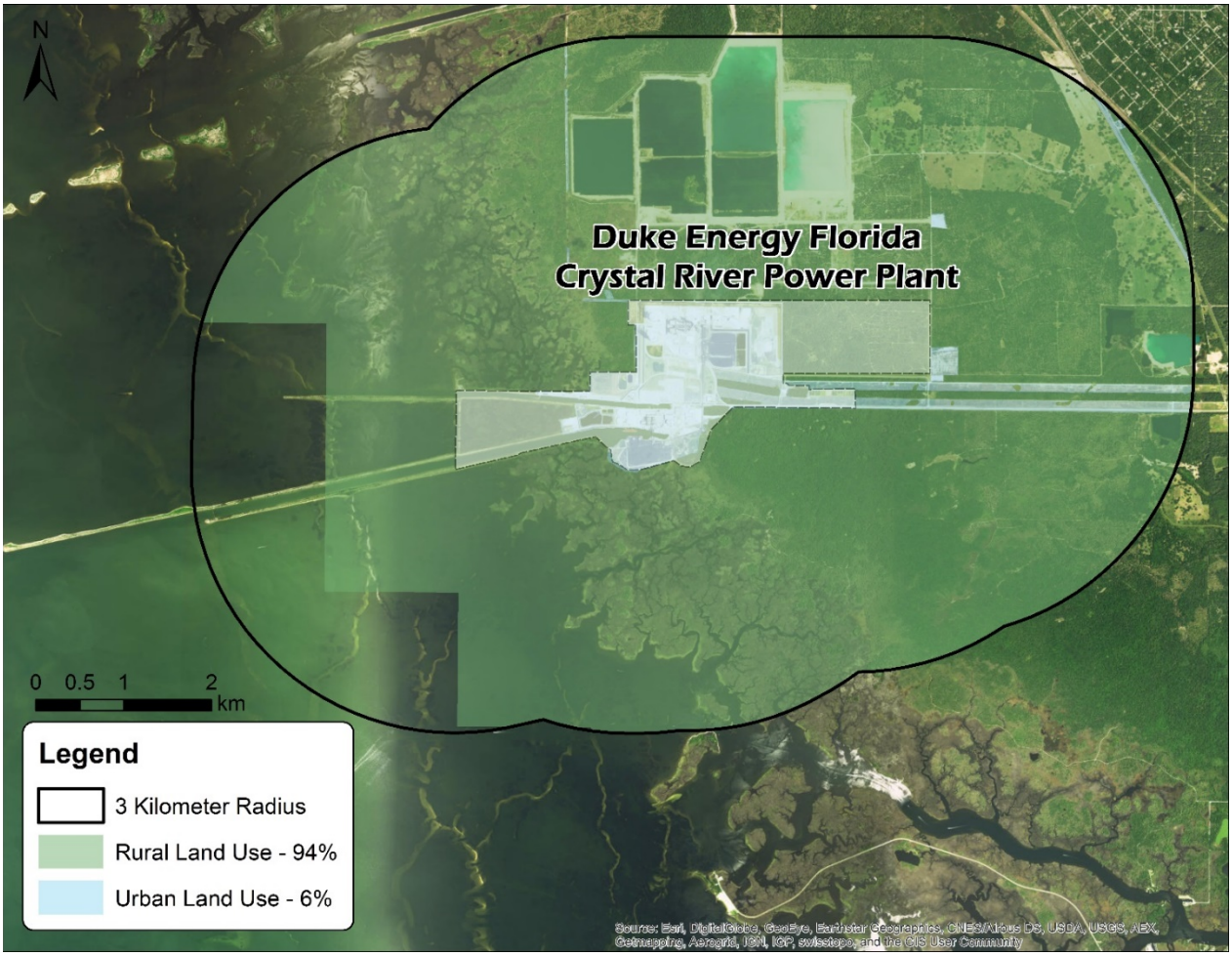
Location	Albedo	Bowen Ratio	Surface Roughness (z_o)
Cedar Key C-MAN Station	0.11	0.11	0.037
Duke Crystal River Power Plant	0.13	0.21	0.214

3.4. Rural/Urban Determination

AERMOD contains different dispersion coefficients for rural and urban settings. Appendix W outlines two methods for determining whether the area should be considered rural or urban. The Department chose the land-use classification approach employing Auer's method.[9] Auer's method requires an analysis of the land use within a 3-km radius around a facility to determine whether the majority of the land is classified as rural or urban. If more than fifty percent of the area consists of Auer land-use industrial, commercial, or residential land types, then urban dispersion coefficients are used in the model; otherwise, rural dispersion coefficients are used. As shown in **Figure 2** below, rural land use constitutes a majority (94 percent) of the 3-km radius around Crystal River.

[9] Auer, Jr., A.H. "Correlation of Land Use and Cover with Meteorological Anomalies," Journal of Applied Meteorology, 17:636-643 (1978).

Figure 2: Land use classification around Duke's Crystal River Power Plant in Citrus County.



3.5. Terrain Elevations

Terrain elevations were determined using the AERMOD terrain preprocessor AERMAP v.18081. AERMAP extracted elevations and hill heights for all sources, buildings, and receptors from the United States Geological Survey (USGS) National Elevation Dataset (NED) with a 10-meter horizontal resolution.

3.6. Receptor Placement

According to EPA's March 2011 Memo *Additional Clarification Regarding Application of Appendix W Modeling Guidance for the 1-hour NO_2 National Ambient Air Quality Standard* and reiterated in the Modeling TAD, it is expected that the distance from the source to the area of the maximum ground-level one-hour impact of SO_2 will be approximately 10 times the source release height.[10] Based on this guidance, the Department developed a uniform method for

[10] Applicability of Appendix W Modeling Guidance for the 1-hr NO_2 National Ambient Air Quality Standard. Tyler Fox Memorandum dated June 28, 2010, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency Research Triangle Park, North Carolina 27711, available at:

receptor grid placement for all DRR sources in Florida. As a conservative approach, a dense grid of receptors was placed from the primary facility's tallest stack (if multiple stacks are the tallest, the most centrally located was chosen) to the greater of 20 times the tallest stack height at the primary facility or 2500 meters. Receptor density then decreased in 2500-meter intervals. Receptors located within Crystal River's fence line were removed and receptors were placed with 50-meter spacing along the fence line.

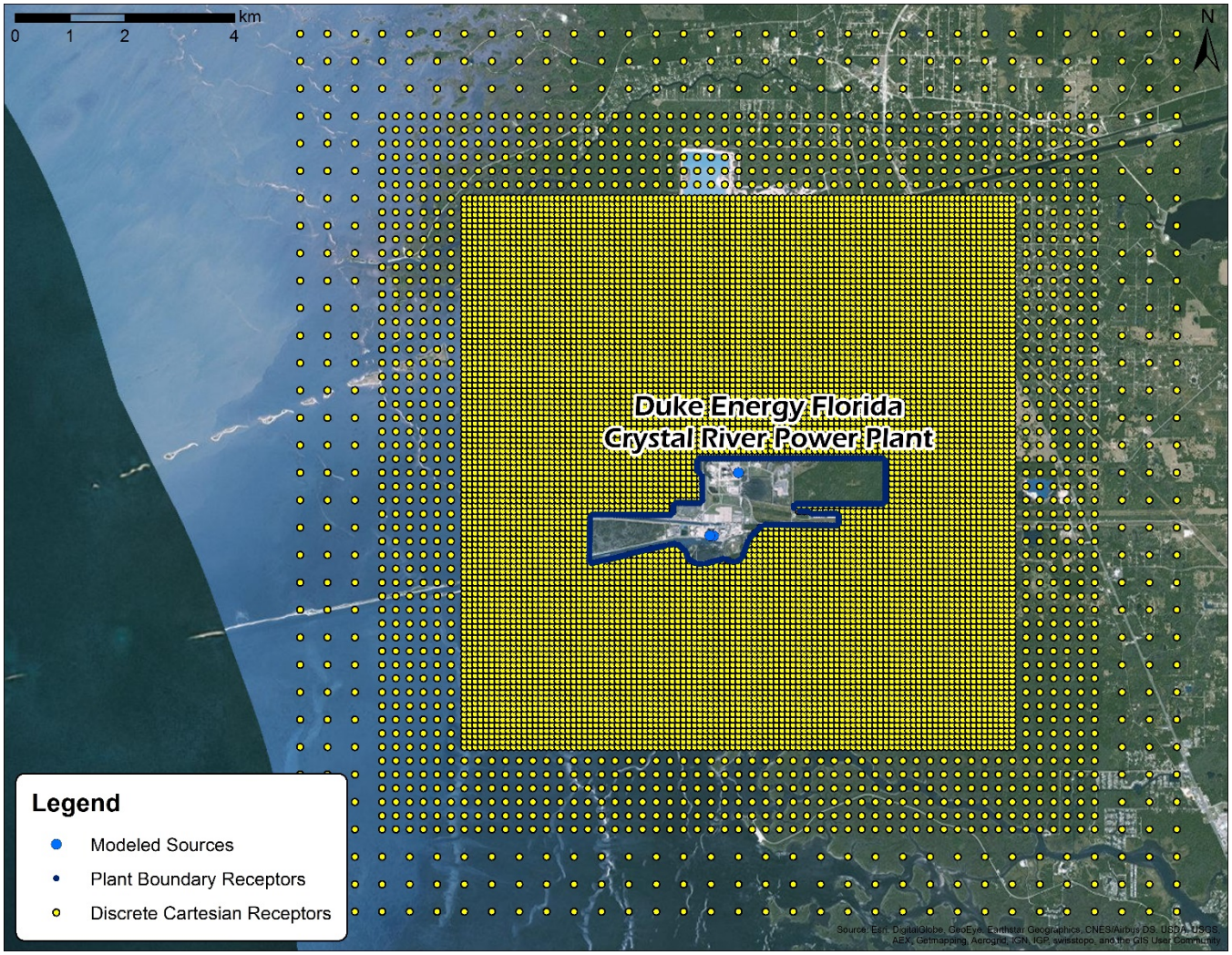
Initial modeling indicated that high concentrations were found in areas of insufficiently dense receptor placement. Accordingly, the grid was expanded to fully resolve the highest concentrations. The Modeling TAD describes a process for removing receptors placed in areas that it would not be feasible to place an actual monitor, such as bodies of water, that is unique to the DRR. The Department chose not to employ this process and instead included receptors in all areas of ambient air within 8 kilometers of Crystal River. The receptor grid used in the modeling demonstration is described below in **Table 5** and **Figure 3**.

Table 5: Modeling demonstration receptor grid description.

Receptor Grid Parameter	Value/Description
Description of Unit at Grid Center	Units 4 & 5 Stack
Unit UTM Zone	17N
Unit UTM Easting (m)	334,780.00
Unit UTM Northing (m)	3,205,567.00
Actual Stack Height (m)	167.60
Expected Distance to Max Concentration (m)	1,676
20 Times Stack Height (m)	3,352
100 m Receptor Spacing - Extent from the Origin (m)	5,000
250 m Receptor Spacing - Extent from the Origin (m)	6,500
500 m Receptor Spacing - Extent from the Origin (m)	8,000
Plant Boundary Receptor Spacing (m)	50
Total Receptors	12,033

http://www.epa.gov/ttn/scram/ClarificationMemo_AppendixW_Hourly-NO2-NAAQS_FINAL_06-28-2010.pdf.

Figure 3: Receptor grid placement for the modeling demonstration.



3.7. Building Downwash

Building downwash effects on emitted plumes were simulated using the Plume Rise Model Enhancements (PRIME) algorithm v.04274 in AERMOD. PRIME predicts concentrations in both the near and far wake regions, with the plume mass captured by the near wake treated separately from the uncaptured primary plume, and reemitted to the far wake as a volume source. Twenty significant structures onsite at Crystal River were included in the downwash analysis. Direction-specific downwash parameters for all stacks at Crystal River were calculated and input to AERMOD by EPA's Building Profile Input Program for PRIME (BPIPPRM).

3.8. Source Parameters and Emissions Data

The Department's modeling demonstration accounts for the permitted changes to Units 1-4 and the new permitted CCCT units and represents a maximum allowable emission rate scenario for Crystal River effective January 1, 2019, as summarized in **Table 6**. The emission rate for the

CCCT Units 1-4 is the maximum potential to emit based on a maximum permitted fuel sulfur content of 2.0 grains per standard cubic foot. The emission rate for Units 4 and 5 is based on the new permitted emissions limit of 0.25 lb/MMBtu based on a 30-day rolling average established in Air Construction Permit 0170004-054-AC[11] and a permitted heat input limit of 6,800 MMBtu/hour based on a 30-day rolling average established in Air Construction Permit 0170004-037-AC[12] for each unit. These conditions are also federally enforceable through Crystal River's current Title V permit (Title V Operation Permit No. 0170004-053-AV). Although Units 4 and 5 have an additional permitted heat input limit of 7,200 MMBtu/hour on a 24-hour block average, the 30-day rolling average limit of 6,800 MMBtu/hour was used to calculate the equivalent limit for modeling since it has the same averaging period as the 0.25 lb/MMBtu SO_2 emissions permit limit. Any short-term variability in emissions has already been accounted for using the equivalency ratio as discussed below.

Table 6: Crystal River units' maximum permitted modeling parameters.

Unit Description	Stack Height (m)	Stack Diameter (m)	Exit Velocity (m/s)	Exit Temp (K)	SO_2 Emission Rate (lb/hr)
CCCT Units 1-4[a]	54.86	6.7	10.7	350.00	17.7[b]
Units 4 and 5	167.64	13.15	15.33	327.60	5,647.84[c]

a. Four separate stacks with identical parameters.
b. Permit limit = 2.0 grains S/100 SCF natural gas; Maximum natural gas flow rate = 3.0975 $MMft^3/hr$; SO_2 = (2.0 gr S/100 ft^3) x (3.0975 x 10^6 ft^3/hr) x (1 lb/7,000 gr) x (2 lb SO_2/lb S) = 17.7 lb/hr.
c. New permitted emission limit of 0.25 lb/MMBtu.

3.8.1. Modeled Emission Rate Averaging Times

If a compliance averaging time for an emission limit is longer than the averaging time for the applicable NAAQS (here, one hour), EPA guidance provides a method of calculating an "equivalent" longer-term emission limit where appropriate.[13] The adjustment method suggested by EPA is to scale the longer-term average emission limit by the ratio of each source's historic 99th percentile one-hour average emission rate to its 99th percentile longer-term average emission rate. The premise of this method is that a longer-term emission limit allows a higher level of emissions variability than the short-term limit. Thus, a larger short-term limit needs to be input to the model in order to account for this variability. The SO_2 emission limits on Units 4 and 5 are based on 30-day averaging periods so this adjustment process was used. The analysis was performed using CEMS data from 2012-2014 and is summarized in **Table 7**. There were no physical changes or changes to method of operation for Units 4 and 5 with the new permitted limit; therefore, the new permit limit is not expected to affect variability in the emissions distributions from these units.

[11] *See* Air Construction Permit No. 0170004-054-AC, issued by the Florida Department of Environmental Protection on January 5, 2017.
[12] *See* Air Construction Permit No. 0170004-037-AC, issued by the Florida Department of Environmental Protection on September 25, 2012.
[13] Guidance for 1-Hour SO_2 Nonattainment Area SIP Submissions, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, available at: http://www.epa.gov/ttn/oarpg/t1pgm.html

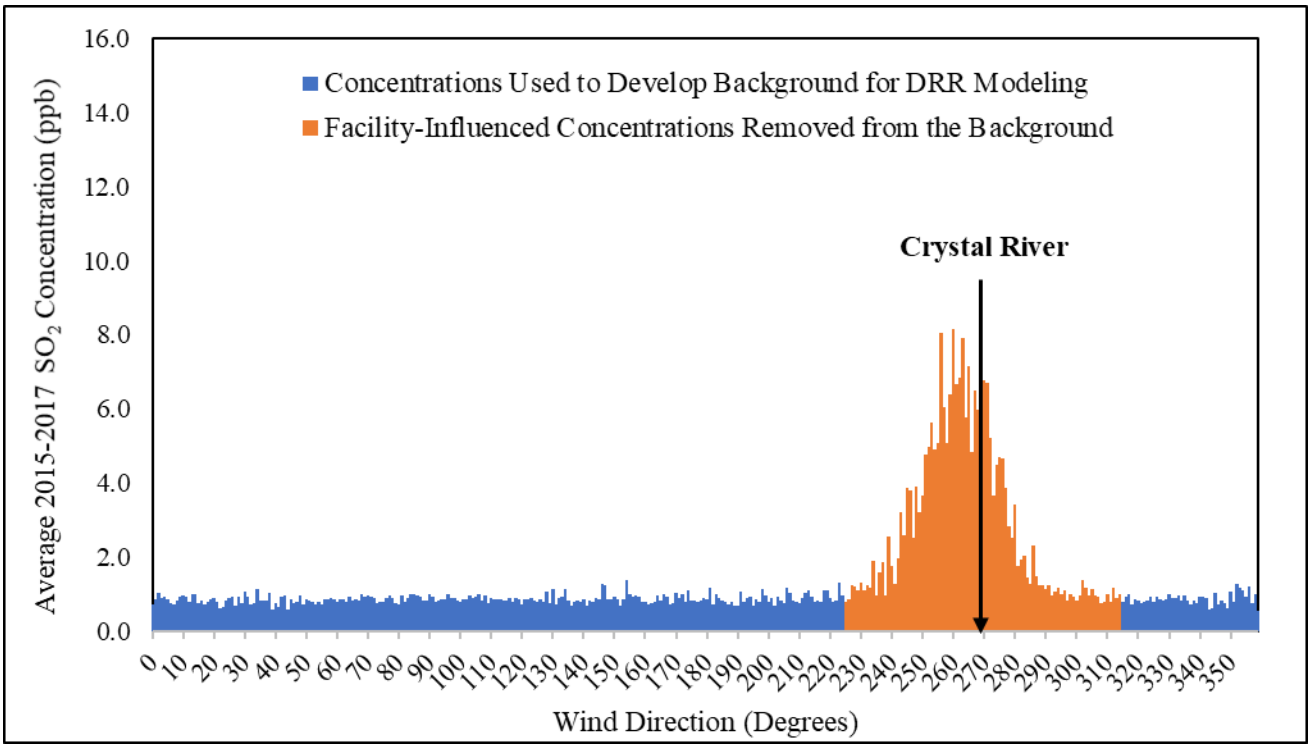
Table 7: Emissions variability analysis and equivalent emission rate calculations for Crystal River.

Unit Description	99th Percentile Rate (lb/hr)		Ratio	Permitted Limit	Equivalent Limit
	1-hr	30-day	1-hr/30-day	(lb/hr)	(lb/hr)
Units 4 and 5	3,165.58	1,904.70	0.602	3,400.00	5,647.84

3.9. Background Concentrations

A set of background concentrations to account for all SO_2 sources not explicitly modeled was developed for each hour of the day by season from local monitoring data.[14] The data used were obtained from the Florida Air Monitoring and Assessment System (FAMAS) for monitoring station No. 12-017-0006 for the period of January 2015 to December 2017. As shown in **Figure 1**, the monitor is 6 kilometers east of Crystal River. In order to avoid double-counting the emissions from the explicitly modeled sources, Appendix W recommends filtering the data to remove measurements when the wind direction could transport pollutants from Crystal River. In this case, the Department removed any measurement recorded when the wind direction was from 225° to 314° from the background calculation as shown in **Figure 4**. The 99th percentile (2nd high) concentration for each hour by season was then averaged across the three years and the resulting array was input to AERMOD with the BACKGRND SEASHR keyword. The final set of background concentrations is summarized in **Table 8**.

Figure 4: 2015-2017 average SO_2 concentrations by wind direction for monitor 12-017-0006.



[14] *See* Modeling TAD, Section 8.1

Table 8: 2015-2017 SO_2 background concentrations (ppb) by hour-of-day by season for the modeling demonstration.

Hour	Winter	Spring	Summer	Autumn	Hour	Winter	Spring	Summer	Autumn
0:00	1.20	1.50	1.73	2.03	12:00	1.90	1.77	6.40	2.30
1:00	1.33	1.53	1.73	2.00	13:00	1.67	1.37	4.77	2.13
2:00	1.33	1.53	1.77	2.03	14:00	1.57	1.60	1.93	2.07
3:00	1.33	1.53	1.77	2.07	15:00	1.40	2.47	3.77	1.63
4:00	1.27	1.57	1.83	2.23	16:00	1.03	1.80	1.67	1.37
5:00	1.33	2.00	1.83	2.30	17:00	1.00	1.40	1.70	2.03
6:00	1.33	2.07	1.83	2.27	18:00	1.00	1.40	1.73	1.67
7:00	1.33	1.67	1.80	2.23	19:00	1.40	1.40	1.80	1.63
8:00	1.33	2.60	1.97	2.10	20:00	1.33	1.40	1.43	1.67
9:00	1.67	2.50	6.07	2.20	21:00	2.40	2.63	2.50	3.60
10:00	2.00	4.00	4.30	2.40	22:00	1.83	1.83	3.07	2.77
11:00	2.00	2.00	2.77	2.30	23:00	2.00	1.50	1.80	2.10

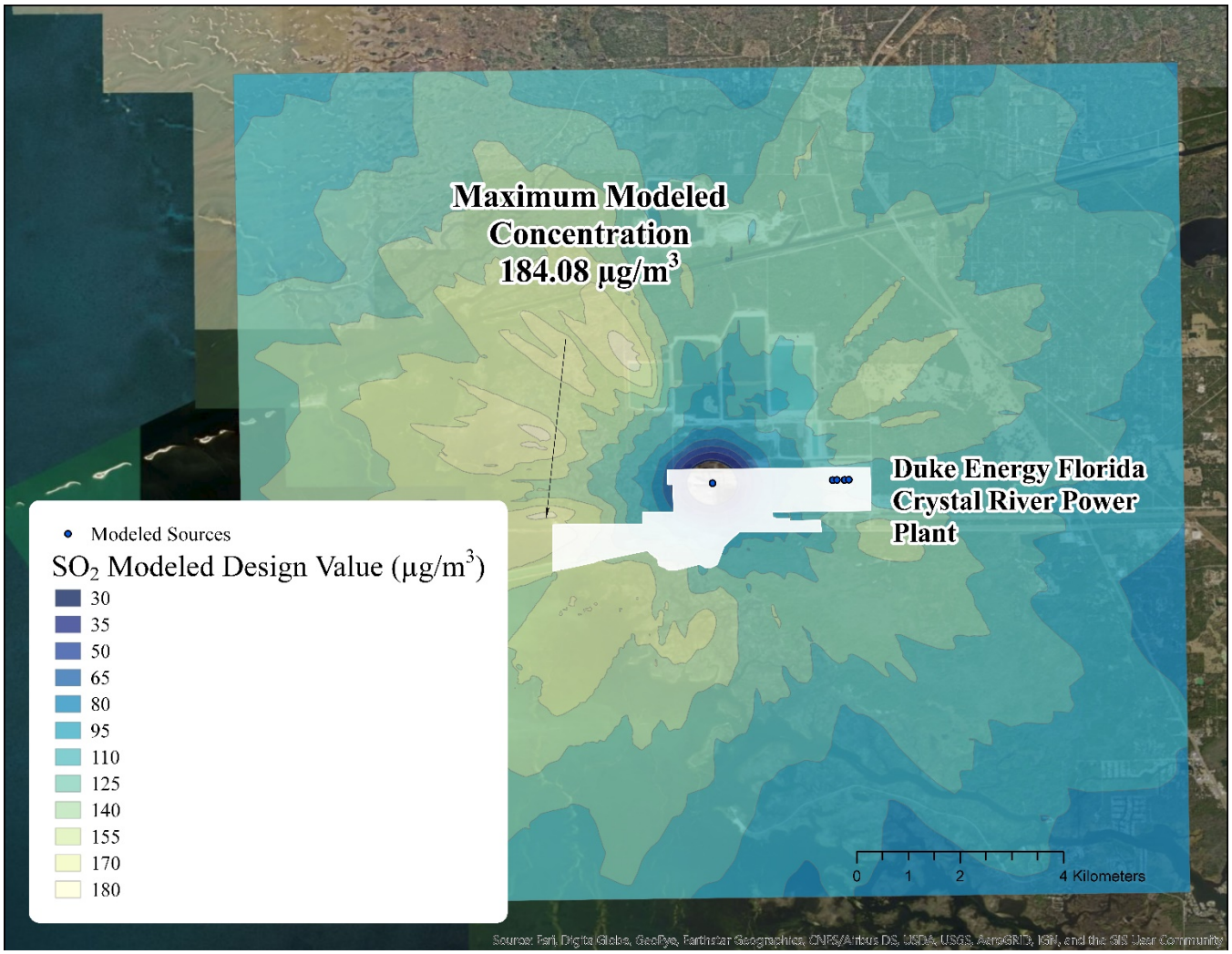
3.10. Modeling Summary and Results

The results of the maximum allowable SO_2 emissions modeling demonstration are summarized in **Table 9** and **Figure 5** and indicate that all areas around Crystal River are in attainment of the one-hour SO_2 NAAQS. As this modeling demonstration uses maximum allowable emission rates, the Department is no longer required to submit annual reports for this facility and requests EPA's approval to terminate the ongoing data requirements under the DRR for Crystal River.

Table 9: Maximum modeled SO_2 design value in the modeling demonstration.

UTM 17N Easting (m)	UTM 17N Northing (m)	Max Modeled Design Value (µg/m^3)				1-Hour SO_2 NAAQS	Percent of NAAQS
		Units 4 & 5	CCCT Units	Background	Total		
331,880.00	3,204,967.00	175.83	2.29	5.96	184.08	196.4	93.7%

Figure 5: Modeled SO_2 design values in the modeling demonstration.



Appendix A – Crystal River Air Construction Permit (0170004-054-AC)

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Jonathan P. Steverson
Secretary

PERMITTEE

Duke Energy Florida, LLC (DEF)
Crystal River Power Plant

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

Permit Nos. 0170004-054-AC/PSD-FL-383G
Permit Expires: December 31, 2018
Air Construction Permit
Project: Minor Source Air Construction Permit & Revisions
Citrus County, Florida

PROJECT

This is the final air construction (AC) permit, which authorizes the shutdown of FFSG, Units 1 & 2 and revisions to previously issued AC/PSD permits (Project). This facility is an existing electric power generation facility categorized under Standard Industrial Classification No. 4911. The existing Crystal River Power Plant is in Citrus County at 15760 West Power Line Street in Crystal River, Florida. UTM coordinates are: Zone 17, 334.3 km East and 3204.5 km North. Latitude is: 28° 57' 34" North and Longitude is: 82° 42' 1" West.

This final permit is organized into the following sections: Section I (General Information), Section II (Requirements); and, Section III (Emission(s) Unit(s) Specific Conditions). Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of Section IV 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.). 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. A copy of this permit modification shall be filed with the referenced permit and shall become part of the permit.

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.
2017.01.05 12:37:47 -05'00'

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

SA/dlr/sms

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) 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 persons listed below.

Mr. Brian V. Powers, DEF: brian.powers@duke-energy.com
Mr. Jamie Hunter, DEF: jamie.hunter@duke-energy.com
Mr. Michael Ballenger, P.E., Trinity Consultants: mballinger@trinityconsultants.com
DEP SWD Office: SWD_Air@dep.state.fl.us and SWD_Air_Permitting@dep.state.fl.us
DEP Siting Coordination Office: SCO@dep.state.fl.us
Mr. Brian Himes, DEP OBP: brian.himes@dep.state.fl.us
Ms. Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us
EPA Region 4 NSR/PSD: NSRsubmittals@epa.gov

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.

Lynn Scearce

2017.01.05 13:05:57 -05'00'

SECTION I. GENERAL INFORMATION

FACILITY DESCRIPTION

This existing facility consists of four coal-fired 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 and 2; coal, fly ash, and bottom ash handling facilities; limestone and gypsum material handling activities; hydrated lime storage and transfer system for Units 4 and 5; and, various fire pumps and generators. The facility is also authorized to operate a portable concrete batch plant (EU 033), as needed for on-site maintenance. The facility continuously operates low-NO_X burners, selective catalytic reduction systems (SCR), flue gas desulfurization systems (FGD) which includes limestone and gypsum material handling activities and acid mist mitigation (AMM) systems for existing Units 4 and 5, as authorized by permits No. 0170004-023-AC (PSD-FL-383C) and 0170004-037-AC (PSD-FL-383E). In conjunction with the new control equipment, Units 4 and 5 are now also authorized to burn a blend of bituminous/sub-bituminous coal.

Also included at this facility are miscellaneous insignificant emissions units and/or activities.

This project will affect the following *existing* permitted emissions units:

E.U. ID No.	Brief Description
001	Fossil Fuel Steam Generator (FFSG), Unit 1
002	FFSG, Unit 2
003	FFSG, Unit 5
004	FFSG, Unit 4

FACILITY REGULATORY CLASSIFICATION

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

PROPOSED PROJECT

This project adds several new permit conditions while also changing conditions in several previously issued AC and PSD permits. The AC permit adds several conditions dealing with the future shutdown date of FFSG Units 1 & 2. In addition, previously issued AC/PSD permits have been revised regarding FFSG Units 5 & 4. These revisions lower the SO_2 emission limit for the units from 0.27 pounds per million British thermal units (lb/MMBtu) of heat input based on a 30-day rolling average to 0.25 lb/MMBtu based on a 30-day rolling average. Compliance with the revised SO_2 emission limit shall occur on or before December 31, 2017.

PROCESSING SCHEDULE AND RELATED DOCUMENTS

Minor Source Air Construction Permit Application received on November 18, 2016 (complete).

1. Permitting Authority: The permitting authority for this project is the Office of Permitting and Compliance, Division of Air Resource Management, Florida Department of Environmental Protection (Department). The mailing address for the Office of Permitting and Compliance is 2600 Blair Stone Road (MS #5505), Tallahassee, Florida 32399-2400.
2. Compliance Authority: All documents related to compliance activities, such as reports, tests, and notifications, shall be submitted to the Compliance Authority. The Compliance Authority is listed on the cover page of the Title V air operation permit.
3. Appendices. The following Appendices are attached as part of this permit:
   a. Appendix A. Citation Formats and Definitions;
   b. Appendix B. General Conditions;
   c. Appendix C. Common Conditions; and,
   d. Appendix D. Common Testing Requirements.
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 & 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) & 62-212.300(1)(a), F.A.C.]
7. Source Obligation. 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. [Rule 62-212.400(12), F.A.C.]
8. Construction. **This permit authorizes the proposed project.** The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Office of Permitting and Compliance prior to the expiration of this permit. [Rules 62-210.300(1), 62-4.070(4) 62-4.080, and 62-4.210, F.A.C.]
9. Application for Title V Air Operation Permit. **The permittee shall apply for a Title V air operation permit to incorporate the new, lower SO_2 emission limit at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation under the new lower limit.** 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.]

This subsection of the permit addresses the following emissions units:

E.U. ID No.	Brief Description
001	FFSG Unit 1
002	FFSG Unit 2

This subsection of the permit is for authorizing the shutdown of FFSG, Units 1 & 2.

PREVIOUS APPLICABLE REQUIREMENTS

1. Effect on Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070(1)&(3), *Reasonable Assurance*, F.A.C.]

SHUTDOWN

2. Shutdown: Unless otherwise specified by the Department in writing, these emission units shall retire by December 31, 2018 and shall no longer operate after this date or in accordance with the date as specified in Condition 8., Section 2. Administrative Requirements of Permit No. 0170004-047-AC, whichever occurs first. [Applicant Request; Application No. 0170004-054-AC; and, Rules 62-4.160(2) & 62-210.200, *Definitions - Potential to Emit (PTE)*, F.A.C.]

   {Permitting note: The December 31, 2018 retirement date may be temporarily extended if the permittee and the Department in writing agree that a situation beyond the control of the permittee has occurred and the permittee can demonstrate that temporary continued operation of these units is necessary to maintain electric system reliability.}

REPORTING REQUIREMENTS

3. Reporting: The permittee shall notify the permitting and compliance authorities of the actual shutdown dates of the units. [Applicant Request; and, Application No. 0170004-054-AC.]

This subsection of the permit addresses the following emissions units:

E.U. ID No.	Brief Description
003	FFSG, Unit 5
004	FFSG, Unit 4

This subsection of the permit addresses revisions to the SO_2 emission limit that applies to FFSG, Units 5 & 4.

The revisions lower the SO_2 emission limit from 0.27 lb/MMBtu of heat input based on a 30-day rolling average to 0.25 lb/MMBtu of heat input based on a 30-day rolling average. Compliance with the revised SO_2 emission limit shall occur on or before December 31, 2017.

Permits Being Modified:	Permit No. 0170004-037-AC/PSD-FL-383F was the latest compilation of the permit revisions which revised and replaced Permit No. 0170004-026-AC/PSD-FL-383D. {Note: Permit No. 0170004-016-AC/PSD-FL-383 was the original permit and Permit No. 0170004-023-AC/PSD-FL-383C was a revision to the original permit.}
Affected Emission Units:	FFSG Units 5 & 4 (E.U. ID Nos. 003 & 004)

The affected specific condition as cited below is hereby changed as follows (the remainder of the permit remains unchanged as a result of this permitting action):

Specific Condition 3.A.9.b.

Specific Condition 3.A.9.b. is changed as follows:

{For simplified reading, the important revisions are emphasized with yellow highlight in this electronic document. ~~Strikethrough~~ is used to denote the deletion of text and double-underlines are used to denote the addition of text.}

9. Standards Based on CEMS: Including the emissions from the CBO unit, emissions from Units 4 and 5 each shall not exceed the following standards based on data collected by the CEMS.

   a. …

   b. *SO_2 Emissions*: As determined by CEMS data, SO_2 emissions shall not exceed 0.27 lb/MMBtu of heat input on or before December 31, 2017 and 0.25 lb/MMBtu of heat input after December 31, 2017 based on a 30-day rolling average for all periods of operation including startup, shutdown and malfunction. As determined by CEMS data, SO_2 emissions shall not exceed 1944.0 lb/hour per unit based on a 24-hour block average excluding startup, shutdown and malfunction of the FGD system. [Application Nos. 0170004-016-AC & 0170004-054-AC/PSD-FL-383G; Rules 62-4.070(3), 62-4.080 and 62-212.400(12), F.A.C.]

   {Permitting notes: Compliance with the revised SO_2 emission standard of 0.25 lb/MMBtu of heat input based on a 30-day rolling average for all period of operation including startup, shutdown, and malfunction shall occur after December 31, 2017. In addition, the more stringent SO_2 emission limit assures compliance with the less stringent, yet applicable SO_2 emission standard from NSPS 40 CFR 60, Subpart D.}

   …

The following are new conditions being added specifically for this part of the project, i.e., lowering of the SO_2 emission limit.

No new or modified equipment (physical changes) or changes in methods of operation associated with this part of the project (SO_2 emission limit reduction) are authorized under this permit.

PREVIOUS APPLICABLE REQUIREMENTS

1. Effect on Other Permits: The conditions of this permit supplement all previously issued air construction and operation permits for these emissions units. Unless otherwise specified, these conditions are in addition to all other applicable permit conditions and regulations. [Rule 62-4.070(1)&(3), *Reasonable Assurance*, F.A.C.]

TESTING REQUIREMENTS

2. Initial Compliance Tests: These emission units shall use the previously certified SO_2 CEMS data to demonstrate initial compliance with the new SO_2 emission limit of 0.25 lb/MMBtu. The initial compliance tests shall consist of the initial 30-day rolling average using SO_2 CEMS data collected during the first 30 boiler operating days following December 31, 2017. [Rules 62-4.070(1)&(3), *Reasonable Assurance*, F.A.C.; and, Application No. 0170004-054-AC/PSD-FL-383G.]

REPORTING REQUIREMENTS

3. Test Reports: The permittee shall prepare and submit a report summarizing the results of the initial compliance demonstration. The report shall be submitted no later than 45 days following the conclusion of the demonstration period. Reports shall be prepared in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit. [Rule 62-297.310(10), F.A.C.; and, Application No. 0170004-054-AC/PSD-FL-383G.]

Appendix B – Crystal River Air Construction Permit (0170004-055-AC)

Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Ryan E. Matthews
Interim Secretary

PERMITTEE

Duke Energy Florida, LLC
299 First Avenue North
St. Petersburg, Florida 33701

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.
2017.02.21 13:24:04 -05'00'

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

www.dep.state.fl.us

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
Jamie Hunter, Duke Energy Florida, LLC: john.hunter@duke-energy.com
William F. Karl, P.E., Environmental Consulting and Technology, Inc.: bkarl@ectinc.com
DEP Southwest District Air Permitting: SWD_Air_Permitting@dep.state.fl.us
DEP Southwest District Air Compliance: SWD_Air@dep.state.fl.us
DEP Siting Office: SCO@dep.state.fl.us
Alisa Coe, Earthjustice: acoe@earthjustice.org
Lynn Scearce, DEP OPC: lynn.scearce@dep.state.fl.us

Clerk Stamp

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

Lynn Scearce 2017.02.21 13:31:08 -05'00'

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.

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

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]

Appendix C – Crystal River Draft Title V Permit Renewal (0170004-058-AV)

Duke Energy Florida, LLC
Crystal River Power Plant

Facility ID No. 0170004
Citrus County

Title V Air Operation Permit Renewal

Permit No. 0170004-058-AV
(Renewal of Title V Air Operation Permit No. 0170004-046-AV)

Permitting Authority:
State of Florida
Department of Environmental Protection
Division of Air Resource Management
Office of Permitting and Compliance
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Telephone: (850) 717-9000
Email: DARM_Permitting@dep.state.fl.us

Compliance Authority:
Southwest District Office
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926

Telephone: (813) 470-5700
E-mail: SWD_Air@dep.state.fl.us

Title V Air Operation Permit Renewal

Permit No. 0170004-058-AV

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FLORIDA DEPARTMENT OF Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

PERMITTEE:
Duke Energy Florida, LLC
15760 West Power Line Street
Crystal River, Florida 34428-6708

Permit No. 0170004-058-AV
Crystal River Power Plant
Facility ID No. 0170004
Title V Air Operation Permit Renewal

The purpose of this permit is to renew the Title V air operation permit for the above referenced facility. The existing Crystal River Power Plant is located in Citrus County at 15760 West Power Line Street, Crystal River, Florida. UTM Coordinates are: Zone 17, 334.3 kilometers (km) East and 3,204.5 km North. Latitude is: 28° 57' 34" North; and Longitude is: 82° 42' 1" West.

The Title V air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to operate the facility in accordance with the terms and conditions of this permit.

Executed in Tallahassee, Florida.

0170004-058-AV Effective Date: DATE, 20xx
Renewal Application Due Date: Exp. DATE -225, 20zz
Expiration Date: Eff. DATE + 5 years, 20zz

(Draft)

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

SA/dlr/ead

SECTION I. FACILITY INFORMATION.

Subsection A. Facility Description.

The facility consists of units operated on two adjacent tracts of land: the Crystal River Energy Complex and the Citrus County Combined Cycle Station. The Crystal River Energy Complex consists of the North Plant and the South Plant. The South Plant is no longer active since Units 1 and 2 (coal-fired fossil fuel steam generating units) and Unit 3 (nuclear unit) have been decommissioned and shut down. However, the facility still operates two emergency engines at the South Plant for maintenance and safety requirements due to the spent nuclear fuel storage from Unit 3.

The Crystal River Energy Complex (North Plant) consists of: two coal-fired fossil fuel steam generating (FFSG) units (Units 4 and 5) with electrostatic precipitators (ESPs) for the control of particulate matter (PM); natural draft cooling towers for FFSG Units 4 and 5; coal, fly ash, and bottom ash handling facilities; and various fire pumps and emergency generators. Material handling activities located at the South Plant remain in service to Units 4 and 5 at the North Plant.

In addition, on Units 4 and 5, the facility continuously operates low-nitrogen oxide (NO_X) burners and selective catalytic reduction (SCR) systems for the control of NO_X emissions, flue gas desulfurization (FGD) systems for the control of sulfur dioxide (SO_2) emissions, and acid mist mitigation (AMM) systems for the control of sulfuric acid mist (SAM) and hydrogen chloride (HCl) emissions. The FGD system also includes: limestone storage and handling, limestone preparation; limestone slurry injection; and gypsum dewatering (collectively regulated as Emissions Unit 023, Limestone and Gypsum Material Handling Activities).

The Citrus County Combined Cycle Station (CCCS) consists of two natural gas-fired combined cycle power blocks designated as CCCS Units 1 and 2. Each power block consists of: two natural gas-fired Mitsubishi Power Systems (MPS) 501GAC combustion turbine-electric generators (CTGs) with optional inlet chillers; two heat recovery steam generators (HRSGs) equipped with natural gas-fired duct burners and SCR systems; two 180-foot exhaust stacks; and a steam turbine-electric generator (STG). Ancillary equipment includes: an auxiliary boiler; two ultra-low sulfur diesel (ULSD)-fired emergency generators; one ULSD-fired emergency firewater pump engine; two mechanical draft cooling towers; and two optional CTG inlet chiller cooling towers.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and activities.

Subsection B. Summary of Emissions Units.

EU No.	Description
Regulated Emissions Units	
South Plant	
029	South Yard Fire Pump Engine
054	New 125 kW Emergency Diesel Generator for Unit 3 Spent Fuel Storage Area
North Plant	
003	FFSG Unit 5
004	FFSG Unit 4
015	Cooling Towers for FFSG Units 4 & 5
023	Limestone and Gypsum Material Handling Activities
032	Hydrated Lime Storage and Transfer System for Units 4 & 5
038	Two Fire Pump House Emergency Diesel Generators for North Plant
039	175 kW Emergency Diesel Generator for Site Administration Building
Common Equipment (North and South Plant)	
016	Materials Handling Activities for Coal-Fired Steam Units

EU No.	Description
055	85 HP Emergency Generator (Telecommunications Tower)
Citrus County Combined Cycle Station (CCCS)	
051	CCCS Unit 1A – Nominal 300 MW CTG with Duct-Fired HRSG
052	CCCS Unit 1B – Nominal 300 MW CTG with Duct-Fired HRSG
042	CCCS Unit 2A – Nominal 300 MW CTG with Duct-Fired HRSG
043	CCCS Unit 2B – Nominal 300 MW CTG with Duct-Fired HRSG
044	Auxiliary Boiler
046	1,500 kW ULSD Emergency Generator
047	1,500 kW ULSD Emergency Generator
048	305 HP ULSD Emergency Firewater Pump Engine
Unregulated Emissions Units and/or Activities	
049	Two 12-Cell Mechanical Draft Cooling Towers

Subsection C. Applicable Regulations.

Based on the Title V air operation permit renewal application received April 12, 2019, 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 No(s).
Federal Rule Citations	
40 CFR 60, Subpart A, NSPS General Provisions	003, 004, 016, 023, 029, 042, 043, 044, 046, 047, 048, 051, 052, 054, & 055
40 CFR 60, Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971	003 & 004
40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units	044
40 CFR 60, Subpart Y, Standards of Performance for Coal Preparation Plants	016
40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants	023
40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines	029, 046, 047, 048, & 054
40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary Spark Ignition Internal Combustion Engines	055
40 CFR 60, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines	042, 043, 051, & 052
40 CFR 60, Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units	042, 043, 051, & 052

Regulation	EU No(s).
40 CFR 63, Subpart A, NESHAP General Provisions	003, 004, 029, 038, 039, 044, 046, 047, 048, 054, & 055
40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines	029, 038, 039, 046, 047, 048, 054, & 055
40 CFR 63, Subpart DDDDD, National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters	044
40 CFR 63, Subpart UUUUU, National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units	003 & 004
40 CFR 75, Acid Rain Monitoring Provisions	003, 004, 042, 043, 051, & 052
State Rule Citations	
Chapter 62-210, F.A.C., Stationary Sources – General Requirements	All
Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD) and Best Available Control Technology (BACT)	003, 004, 015, 016, & 023
Chapter 62-213, F.A.C., Operation Permits for Major Sources of Air Pollution	All
Chapter 62-297, F.A.C., Stationary Sources – Emissions Monitoring	

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section V, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated. [Rule 62-213.440, F.A.C.]

Emissions and Controls

FW2. **Not federally Enforceable.** Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed-necessary and ordered by the Department.

a. Tightly cover or close all VOC or OS containers when they are not in use.
b. Tightly cover all open tanks which contain VOC or OS when they are not in use.
c. Maintain all pipes, valves, fittings, etc., when handling VOC or OS in good operating condition.
d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling, or proper disposal.

[Rule 62-296.320(1), F.A.C.]

FW4. General Visible Emissions. No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b), F.A.C.]

FW5. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

a. Maintenance of paved areas as needed;
b. Regular mowing of grass and care of vegetation;
c. Limiting access to plant property by unnecessary vehicles;
d. To the extent practicable, the hydrated lime handling and storage operations shall be enclosed and confined to prevent fugitive dust emissions from the unloading, storage, and handling of hydrated lime; and
e. Fabric filters shall be properly maintained on the hydrated lime storage silos to provide assurance that visible emissions exhausted during the filling of the silos and operation of the handling and storage equipment remains below the design emission rate of 5% opacity.

[Rule 62-296.320(4)(c), F.A.C.; and, proposed by applicant in Title V air operation permit renewal application received April 12, 2019.]

Reports and Fees

See Appendix RR, Facility-wide Reporting Requirements, for additional details and requirements.

FW6. Electronic Annual Operating Report and Title V Annual Emissions Fees. The information required by the Annual Operating Report for Air Pollutant Emitting Facility [Including Title V Source Emissions Fee Calculation] (DEP Form No. 62-210.900(5)) shall be submitted by April 1 of each year, for the previous calendar year, to the Department of Environmental Protection's Division of Air Resource Management. Each Title V source shall submit the annual operating report using the DEP's Electronic Annual Operating Report

(EAOR) software, unless the Title V source claims a technical or financial hardship by submitting DEP Form No. 62-210.900(5) to the DEP Division of Air Resource Management instead of using the reporting software. Emissions shall be computed in accordance with the provisions of subsection 62-210.370(2), F.A.C. Each Title V source must pay between January 15 and April 1 of each year an annual emissions fee in an amount determined as set forth in subsection 62-213.205(1), F.A.C. The annual fee shall only apply to those regulated pollutants, except carbon monoxide and greenhouse gases, for which an allowable numeric emission-limiting standard is specified in the source's most recent construction permit or operation permit. Upon completing the required EAOR entries, the EAOR Title V Fee Invoice can be printed by the source showing which of the reported emissions are subject to the fee and the total Title V Annual Emissions Fee that is due. The submission of the annual Title V emissions fee payment is also due (postmarked) by April 1st of each year. A copy of the system-generated EAOR Title V Annual Emissions Fee Invoice and the indicated total fee shall be submitted to: **Major Air Pollution Source Annual Emissions Fee, P.O. Box 3070, Tallahassee, Florida 32315-3070.** Additional information is available by accessing the Title V Annual Emissions Fee On-line Information Center at the following Internet web site: https://floridadep.gov/air/permitting-compliance/content/title-v-fees. [Rules 62-210.370(3), 62-210.900 & 62-213.205, F.A.C.; and, §403.0872(11), Florida Statutes (2013)]

{Permitting Note: Resources to help you complete your AOR are available on the electronic AOR (EAOR) website at: http://www.dep.state.fl.us/air/emission/eaor. If you have questions or need assistance after reviewing the information posted on the EAOR website, please contact the Department by phone at (850) 717-9000 or email at eaor@dep.state.fl.us.}

{Permitting Note: The Title V Annual Emissions Fee form (DEP Form No. 62-213.900(1)) has been repealed. ***A separate Annual Emissions Fee form is no longer required to be submitted by March 1st each year.****}*

FW7. Annual Statement of Compliance. The permittee shall submit an annual statement of compliance to the compliance authority at the address shown on the cover of this permit and to the US. EPA at the address shown below within 60 days after the end of each calendar year during which the Title V air operation permit was effective. (See also Appendix RR, Conditions RR1 and RR7.) [Rules 62-213.440(3)(a)2. & 3. and (b), F.A.C.]

U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, Georgia 30303
Attn: Air Enforcement Branch

FW8. Prevention of Accidental Releases (Section 112(r) of CAA). If, and when, the facility becomes subject to 112(r), the permittee shall:

a. Submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent electronically through EPA's Central Data Exchange system at the following address: https://cdx.epa.gov. Information on electronically submitting risk management plans using the Central Data Exchange system is available at: http://www2.epa.gov/rmp. The RMP Reporting Center can be contacted at: RMP Reporting Center, Post Office Box 10162, Fairfax, VA 22038, Telephone: (703) 227-7650.
b. Submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.

[40 CFR 68]

FW9. Semi-Annual Reports. The permittee shall monitor compliance with the terms and conditions of this permit and shall submit reports at least every six months to the compliance office. Each semi-annual report shall cover the 6-month periods of January 1 – June 30 and July 1 – December 31. The reports shall be submitted by the 60th day following the end of each calendar half (i.e., March 1st and August 29th of every

year). All instances of deviations from permit requirements (including conditions in the referenced Appendices) must be clearly identified in such reports, including reference to the specific requirement and the duration of such deviation. If there are no deviations during the reporting period, the report shall so indicate. Any semi-annual reporting requirements contained in applicable federal NSPS or NESHAP requirements may be submitted as part of this report. The submittal dates specified above shall replace the submittal dates specified in the federal rules. All additional reports submitted as part of this report should be clearly identified according to the specific federal requirement. All reports shall include a certification by a responsible official, pursuant to subsection 62-213.420(4), F.A.C. (See also Conditions RR2. – RR4. of Appendix RR, Facility-wide Reporting Requirements, for additional reporting requirements related to deviations.) [Rule 62-213.440(1)(b)3.a., F.A.C.; and, 40 CFR 60.19, 40 CFR 61.10 & 40 CFR 63.10]

{Permitting Note: EPA has clarified that, pursuant to 40 CFR 70.6(a)(3), the word "monitoring" is used in a broad sense and means monitoring (i.e., paying attention to) the compliance of the source with all emissions limitations, standards, and work practices specified in the permit.}

FW10. Submission of Reports. All reports shall be submitted to the Department's Compliance Authority listed on the cover page of this permit. However, if a condition contained within this permit (including the incorporated appendices listed in the Table of Contents) allows or requires the electronic submission of a report directly to the EPA using their Electronic Reporting Tool (ERT), that report does not also have to be submitted to the Compliance Authority, provided the permittee complies with all of the specific requirements of that condition and notifies the Compliance Authority in writing (e-mail) on the same day that a report has been submitted to the ERT. See Appendix TR, Facility-wide Testing Requirements, for specific emission test report submission requirements. [Rules 62-4.130, 62-4.160, 62-213.440(1)(b) & 62-297.310(10), F.A.C.]

Table of Contents.

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
003	FFSG, Unit 5
004	FFSG, Unit 4
032	Hydrated Lime Storage and Transfer System

Emissions Units 003 and 004 (Unit 5 and Unit 4, respectively) are fossil fuel-fired electric utility steam generators, each consisting of a pulverized coal, dry bottom, wall-fired boiler rated at 760 megawatts (MW). Air pollution control equipment includes: low-NO_X burners; SCR systems; FGD systems; AMM systems; and ESPs manufactured by Combustion Engineering. Units 4 and 5 share a common 550-foot tall chimney with separate internal stack liners with continuous emissions monitoring systems (CEMS) on each stack liner. The flue gases exhaust at 130 degrees Fahrenheit (°F) with a volumetric flow rate of 2,205,195 actual cubic feet per minute (acfm) through the individual stack liners, which are 30.5 feet in diameter.

Emissions Unit 032 is a hydrated lime storage and transfer system for Units 4 and 5 consisting of the following primary components for each unit: a hydrated lime storage silo, which is controlled by a dust collector fabric filter (silo vent filter); rotary valves and blowers for pneumatic delivery of the hydrated lime; and hydrated lime injection lances. A delivery truck pneumatically fills the hydrated lime silos with hydrated lime for approximately six hours per day. Each hydrated lime silo has dedicated rotary valves and blowers for pneumatic delivery of the hydrated lime to sets of injection lances mounted in flue gas ducts at various locations along the flue gas path. The pneumatic conveyor is also controlled by the dust collectors on the hydrated lime storage silos.

{Permitting Note: Emissions Units 003 and 004 are regulated under Acid Rain, Phase II; Rule 62-210.300, F.A.C., Permits Required; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (BACT); 40 CFR 60, Subpart A, General Provisions, and Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced after August 17, 1971; PSD-FL-007 issued by U.S. EPA in February 1978; and Power Plant Siting Certification PA 77-09. Unit 4 began commercial operation in 1982, and Unit 5 began commercial operation in 1984. Emissions Unit 032 is regulated under Rule 62-212.300, F.A.C. and by applicable requirements in Permit Nos. 0170004-037-AC (PSD-FL-383F), 0170004-054-AC (PSD-FL-383G), and 0170004-052-AC (PSD-FL-383H).}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable heat input rates are as follows:

EU No.	MMBtu/hr Heat Input	Fuel Type
004	7,200	Bituminous Coal
003	7,200	Bituminous Coal

The maximum heat input rates to Units 4 and 5 are 7,200 MMBtu per hour per unit based on a 24-hour block average (midnight to midnight) and 6,800 MMBtu per hour per unit based on a 30-day rolling average. Compliance shall be demonstrated by collecting the fuel feed rate as monitored by the existing operating data monitoring system and calculating the heat input rate from the amounts of fuel fired and the higher heating value (HHV) of each fuel as determined by vendor certifications or sampling and analysis by the permittee. Data shall be recorded and reduced to 1-hour blocks, 24-hour blocks (midnight-to-midnight), and 30-day rolling averages, and kept on-site for five years. [Rule 62-213.440(1)(b)2.b., F.A.C.; Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Condition 3.A.5.a.; 0170004-045-AC, Specific Condition 2.; and, 0170004-052-AC (PSD-FL-383H)]

A.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

A.3. Methods of Operation – Fuels. The fuels that are allowed to be burned in these units are:
a. Bituminous coal;
b. No. 2 fuel oil may be used as an igniter fuel; and
c. Natural gas may be used as a startup and low-load flame stabilization fuel.
[Rules 62-210.200(PTE) & 62-213.410, F.A.C.; Permit Nos. 0170004-006-AC, 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.6, 0170004-037-AC Specific Condition 6, 0170004-045-AC Specific Condition 2, and 0170004-052-AC; and Power Plant Siting Conditions, PA 77-09, Final Order (dated 11/21/1978) & Modification C]

A.4. Hours of Operation. These emissions units may operate continuously. [Rule 62-210.200(PTE), F.A.C.]

Control Technology

A.5. Emissions Control Equipment and BACT Controls.
a. *Low-NO_X Burners*. The permittee is required to operate and maintain low-NO_X burners.
b. *Selective Catalytic Reduction (SCR) Systems*. The permittee is required to operate and maintain SCR systems to reduce NO_X emissions in order to comply with the NO_X emissions standards in **Specific Condition A.9**. As needed, urea shall be converted into ammonia, which shall be mixed to the proper concentration. Ammonia shall be injected ahead of the SCR reactor, which is installed upstream of the air heater for each unit.
c. *Flue Gas Desulfurization (FGD) Equipment*. The permittee is required to operate and maintain wet flue gas desulfurization (FGD) systems to reduce SO_2 and other acid gas emissions in order to comply with the emissions standards in **Specific Conditions A.7**, **A.11**, **A.15**, and **A.16**. A limestone slurry shall be injected into the FGD absorbers at the design feed rate of approximately 352 gallons per minute (gpm).
d. *Acid Mist Mitigation (AMM) Systems*. The permittee is required to operate and maintain AMM systems to control SAM emissions through either lime injection (primary) or ammonia injection (backup) in order to comply with the emissions standard in **Specific Condition A.11**.
(1) The hydrated lime shall be injected into the flue gas through a combination of locations after the boiler (i.e., after the air heaters, after the SCR reactor, at the gas recirculation fan, and before/after the existing ESP).
(2) When used as a backup to the lime injection, the ammonia shall be injected through a uniform injection grid located after the boiler air heaters and SCR reactor and before or after the existing ESP.
e. *Electrostatic Precipitator (ESP)*. The permittee is required to operate and maintain ESPs in order to comply with the PM/PM_{10} and opacity emissions standards in **Specific Conditions A.6** and **A.13**.
f. *Hydrated lime Injection Systems Dust Collectors*. The permittee is required to operate and maintain a dust collector on each hydrated lime storage silo to control emissions from the loading of the hydrated lime storage silo and unloading and transfer from the silo to the injection lances. Each dust collector shall be designed for a dust outlet specification of 0.015 grains/dry standard cubic foot (gr/dscf).
[Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Conditions 3.A.2 & 3. and 0170004-037-AC (PSD-FL-383F), Specific Conditions A.2., A.3., H.2, H.3., & H.5.; and Permit No. 0170004-052-AC (PSD-FL-383H)]

Emission Limitations and Standards

Unless otherwise specified, the averaging times for **Specific Conditions A.6 – A.17** are based on the specified averaging time of the applicable test method.

A.6. Particulate Matter (PM) Emissions. PM emissions from Emissions Units 003 and 004 shall not exceed the following limits:
a. As determined by CEMS, filterable PM emissions shall not exceed 13 nanograms per Joule (ng/J) heat input (0.03 lb per million British thermal unit [lb/MMBtu]) on a 24-hour (daily) block average basis, excluding startup, shutdown, and malfunction. [40 CFR 60.42(c), 40 CFR 60.42Da(a), and 40 CFR 60.45(g)]

b. As determined by CEMS, filterable PM emissions shall not exceed 0.030 lb/MMBtu, or 0.30 pounds per megawatt-hour (lb/MWh), on an individual unit basis, based on a 30-boiler operating day rolling average. As an allowed alternative, these units may choose to comply with this PM limit through participation in a multi-unit averaging plan based on a 30-boiler operating day average, following the requirements of 40 CFR 63.10009. [40 CFR 63.10009 and Table 2 to 40 CFR 63, Subpart UUUUU]

c. As determined by CEMS, filterable PM emissions shall not exceed 0.030 lb/MMBtu, based on a 30-boiler operating day rolling average and 216.0 lb/hour based on a 24-hour (daily) block average, excluding startup, shutdown, and malfunction. [Rule 62-212.400(BACT), F.A.C.; and Permit Nos. 0170004-037-AC (PSD-FL-383F) Specific Condition A.8.b., 0170004-045-AC Specific Condition 5, and 0170004-052-AC (PSD-FL-383H)]

{Permitting Note: Per the allowance found in 40 CFR 60.42(c), the permittee has chosen to accept the CEMS PM emission standard in 60.42Da(a) in lieu of the PM and opacity standards in 40 CFR 60, Subpart D.}

A.7. Sulfur Dioxide (SO_2) Emissions. SO_2 emissions from Emissions Units 003 and 004 shall not exceed the following limits:

a. 340 ng/J heat input (0.80 lb/MMBtu), 24-hour average, derived from liquid fossil fuel.

b. 520 ng/J heat input (1.2 lb/MMBtu), 24-hour average, derived from solid fossil fuel.

[40 CFR 60.43(a); and PPSC PA 77-09]

c. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) shall be determined by proration using the following formula:

$$PS_{SO_2} = \frac{y(340) + z(520)}{(y + z)}$$

where:

PS_{SO2} = the prorated standard for SO_2 when burning different fuels simultaneously, in ng/J heat input, derived from all fossil fuels fired or from all fossil fuels and wood residue fired,
y = the percentage of total heat input derived from liquid fossil fuel, and
z = the percentage of total heat input derived from solid fossil fuel.

[40 CFR 60.43(b)]

d. Compliance shall be based on the total heat input from all fossil fuels burned, including gaseous fuels. [40 CFR 60.43(c)]

e. As determined by CEMS, SO_2 emissions shall not exceed 0.25 lb/MMBtu of heat input, based on a 30-day rolling average for all periods of operation including startup, shutdown, and malfunction. [Rule 62-212.400(BACT), F.A.C.; and Permit Nos. 0170004-037-AC (PSD-FL-383F) Specific Condition A.9.b and 0170004-054-AC (PSD-FL-383G)]

f. As determined by CEMS data, SO_2 emissions shall not exceed 1,944 lb/hour per unit, based on a 24-hour block average, excluding startup, shutdown, and malfunction of the FGD system. [Rule 62-212.400(BACT), F.A.C.; and Permit Nos. 0170004-037-AC (PSD-FL-383F) Specific Condition A.9.b and 0170004-054-AC (PSD-FL-383G)]

{Permitting Note: The more stringent SO_2 emission limit of 0.25 lb/MMBtu ensures compliance with the less stringent yet applicable SO_2 emission standards from NSPS 40 CFR 60, Subpart D.}

A.8. SO_2 – Fuel Sulfur Content.

a. Fuel oil shall not contain more than 0.73% sulfur by weight, as delivered. [Rule 62-213.410, F.A.C., and PPSC PA 77-09 and modified conditions]

b. Coal shall not exceed a maximum specification of 5.5 lb SO_2/MMBtu sulfur content, as delivered. [Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition A.6.a, 0170004-037-AC (PSD-FL-383F) Specific Condition 6, 0170004-045-AC Specific Condition 3, and 0170004-052-AC (PSD-FL-383H)]

A.9. Nitrogen Oxides (NO_X) Emissions. NO_X emissions from Emissions Units 003 and 004 shall not exceed the following limits:

a. 86 ng/J heat input (0.20 lb/MMBtu), 30-day rolling average, derived from gaseous fossil fuel.
b. 129 ng/J heat input (0.30 lb/MMBtu), 30-day rolling average, derived from liquid fossil fuel.
c. 300 ng/J heat input (0.70 lb/MMBtu), 30-day rolling average, derived from solid fossil fuel.
[40 CFR 60.44(a) and PPSC PA 77-09]
d. When different fossil fuels are burned simultaneously in any combination, the applicable standard (in ng/J) is determined by proration using the following formula:

$$PS_{NO_X} = \frac{x(86) + y(130) + z(300)}{x + y + z}$$

where:
PS_{NOx} = the prorated standard for NO_X when burning different fuels simultaneously, in ng/J heat input derived from all fossil fuels or from all fossil fuels and wood residue fired;
x = the percentage of total heat input derived from gaseous fossil fuel;
y = the percentage of total heat input derived from liquid fossil fuel; and
z = the percentage of total heat input derived from solid fossil fuel (except lignite).
[40 CFR 60.44(b)]
e. As determined by CEMS data, NO_X emissions shall not exceed 2,085 tons per year per unit based on a 12-month rolling average for all periods of operation, including startup, shutdown, and malfunction. [Permit Nos. 0170004-016-AC (PSD-FL-383) Specific Condition A.9.a and 0170004-019-AC (PSD-FL-383A) Specific Condition 4]
f. In addition, Units 4 and 5 are regulated under Phase II NO_X requirements of the federal Acid Rain Program. As determined by CEMS, NO_X emissions from Units 4 and 5 shall not exceed 0.46 lb/MMBtu heat input, on an individual unit basis, using the procedures detailed in **Section IV** of this permit. Compliance shall be based on a heat input-weighted annual average. [Rule 62-213.440 and Chapter 62-214, F.A.C.; and 40 CFR 76]

A.10. Ammonia Slip Emissions. As determined by EPA Method CTM-027 (or equivalent), the ammonia slip shall not exceed 5 parts per million by volume (ppmv) based on a 3-run test average conducted at permitted capacity. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition A.8.a.]

A.11. Sulfuric Acid Mist (SAM) Emissions. As determined by EPA Method 8 or 8A, SAM emissions shall not exceed 0.009 lb/MMBtu and 64.8 lb/hour based on a 3-run test average conducted at permitted capacity. [Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition A.8.c., and 0170004-052-AC (PSD-FL-383H)]

A.12. Volatile Organic Compounds (VOC) Emissions. As determined by EPA Method 25A, VOC emissions shall not exceed 0.004 lb/MMBtu and 28.8 lb/hour based on a 3-run test average conducted at permitted capacity. Optionally, EPA Method 18 may be conducted concurrently in order to deduct non-regulated VOC emissions such as methane and ethane. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition A.8.d.]

A.13. Opacity. As determined by EPA Method 9, the opacity shall not exceed 10% based on a 6-minute block average, except for one 6-minute period per hour of not more than 20%. [Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition A.8.e., 0170004-045-AC Specific Condition 4, and 0170004-052-AC (PSD-FL-383H)]

A.14. Carbon Monoxide (CO) Emissions. As determined by CEMS data, CO emissions shall not exceed 0.10 lb/MMBtu of heat input, based on a 30-day rolling average, excluding periods of startup, shutdown, and malfunction. As determined by CEMS data, CO emissions shall not exceed 680.0 lb/hour, based on a 30-day rolling average for all periods of operation, including startup, shutdown, and malfunction. [Permit Nos.

0170004-023-AC (PSD-FL-383C) Specific Conditions A.9.c. & d., 0170004-030-AC (PSD-FL-383E) Specific Condition 9, and 0170004-037-AC (PSD-FL-383F) Specific Condition A.9.c.]

A.15. Hydrogen Chloride (HCl) Emissions – MATS. As determined by EPA Method 26, or EPA Method 26 as modified in accordance with DARM-OGG-20, emissions of HCl shall not exceed either 0.0020 lb/MMBtu heat input or 0.020 lb/MWh on an individual unit basis. As an allowed alternative, these units may comply with the HCl limit through participation in a multi-unit averaging plan on a 30-day rolling average basis, following the requirements of 40 CFR 63.10009. In lieu of an HCl emissions limit, the permittee may choose to meet an alternate SO_2 emissions limit of either 0.20 lb/MMBtu heat input or 1.5 lb/MWh. [Table 2 to 40 CFR 63, Subpart UUUUU; and Rule 62-297.620, F.A.C.]

A.16. Mercury (Hg) Emissions – MATS. As determined by CEMS or sorbent trap monitoring systems, emissions of Hg shall not exceed either 1.2 pounds per trillion Btu (lb/TBtu) heat input or 0.013 pounds per gigawatt-hour (lb/GWh) on an individual unit 30-day rolling average basis. As an allowed alternative, these units may comply with the Hg limit through participation in a multi-unit averaging plan on a 30-day, or 90-day, rolling average basis, following the requirements of 40 CFR 63.10009. [Table 2 to 40 CFR 63, Subpart UUUUU]

A.17. Hydrated Lime Injection Systems Opacity Work Practice Standard – Dust Collectors. As determined by EPA Method 9, visible emissions from each dust collector fabric filter exhaust shall not exceed the design emissions rate of 5% opacity, based on a 6-minute average. This visible emissions limit is a work practice standard to prevent circumvention of the control device and ensure proper operation. If visible emissions in excess of this standard occur, the permittee shall investigate the cause and take corrective action to regain operation below the standard (e.g., cause: bag failure / corrective action: replaced bags). For this equipment, visible emissions in excess of the opacity standard are not necessarily a violation of this permit; however, failure to investigate excess emissions and take corrective action to minimize emissions may be considered circumvention of a control device. [Permit Nos. 0170004-037-AC (PSD-FL-383F) Specific Condition H.4., and 0170004-052-AC (PSD-FL-383H)]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C. cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.

A.18. Excess Emissions.

a. Prior to May 23, 2020, excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. [Rules 62-210.700(1) and (6), F.A.C.]

b. Prior to May 23, 2020, excess emissions resulting from startup or shutdown shall be permitted provided that best practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized. [Rules 62-210.700(2) and (6), F.A.C.]

c. In case of excess emissions resulting from malfunctions, the permittee shall notify the Compliance Authority in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700(5), F.A.C.]

d. In accordance with Rule 62-210.700, F.A.C., excess emissions due to startup, shutdown, or malfunction have been considered in establishing the sets of CEMS-based emissions standards of this permit. [Rule 62-210.700, F.A.C.; and Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition A.12, 0170004-037-AC (PSD-FL-383F) Specific Condition A.12, and 0170004-052-AC (PSD-FL-383H)]

e. Excess emissions due to correlation of the PM CEMS on Units 4 and 5 using Performance Specification 11 (PS-11) shall be permitted provided the duration of excess emissions is minimized, and the units are returned to compliance as expeditiously as practicable. [Permit No. 0170004-052-AC (PSD-FL-383H) Specific Condition B.1; and 40 CFR 63, Subpart UUUUU]

f. Pursuant to 40 CFR 63, Subpart UUUUU, the permittee shall follow the work practice standards in Table 3 to Subpart UUUUU during startup and shutdown. [Table 3, 3. & 4. to 40 CFR 63, Subpart UUUUU]

A.19. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which 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(1), F.A.C.; and, Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.11]

A.20. NSPS Excess Emissions. Excess emissions shall be as defined in 40 CFR 60.45(g), Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971. [40 CFR 60.45(g)]

Monitoring of Operations

A.21. CAM Plan. Emissions Units 003 and 004 are subject to the Compliance Assurance Monitoring (CAM) requirements related to SAM emissions contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(8)(c), F.A.C. The permittee shall operate the sulfuric acid mist mitigation (AMM) systems in accordance with Appendix CAM. Using the following procedures, the permittee may conduct additional SAM performance tests to establish new operating procedures for the AMM systems due to changes with the fuel blends, control equipment, operating methods or other circumstances. When collecting data during the SAM performance tests, the permittee is exempt from the SAM emissions standards of this permit.

a. For each set of operating conditions being evaluated, the permittee shall conduct at least a 1-hour test run to determine SAM emissions. At least nine test runs shall be conducted to evaluate SAM emissions.
b. Tests shall be conducted with the fuel blends and load rates that are representative of the actual operating ranges intended for Units 4 and 5. Sufficient tests shall be conducted to establish the SAM emissions rates under varying operating conditions and levels of ammonia and/or hydrated lime injection.
c. At least 15 days prior to initiating the performance tests, the permittee shall submit a test notification, preliminary test schedule and test protocol to the Office of Permitting and Compliance and to the Compliance Authority.
d. Within 45 days following the last test run conducted, the permittee shall provide a report summarizing the emissions tests and results. All SAM emissions test data shall be provided with this report.
e. Based on the results of the performance testing, the permittee may apply to the Permitting Authority to modify the sulfuric acid mist mitigation procedures contained in Appendix CAM.

[40 CFR 64; Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.; Rule 62-212.400(BACT), F.A.C.; and, Permit Nos. 0170004-037-AC (PSD-FL-383F) and 0170004-048-AC]

A.22. Fuel Monitoring – Units 4 and 5. The permittee shall continuously monitor each fuel feed rate and fuel heating values to determine the heat input rates to Units 4 and 5. (See **Specific Condition A.1**). [Permit No. 0170004-037-AC (PSD-FL-383F) Specific Condition A.23)

A.23. Control Device Parametric Monitoring. The following parameters related to the operation of the control devices shall be continuously monitored (see also **Specific Condition A.39**):

a. *SCR System.* The permittee shall continuously monitor the ammonia injection rate of the SCR control system.
b. *FGD System.* The permittee shall continuously monitor the limestone slurry injection rate of the FGD control system.
c. *AMM Systems.* The permittee shall continuously monitor the hydrated lime or ammonia injection rate of the AMM systems.

[Permit No. 0170004-037-AC (PSD-FL-383F), Specific Condition A.25., and 0170004-052-AC (PSD-FL-383H)]

Continuous Emissions Monitoring Requirements

A.24. Required Continuous Emissions Monitoring Systems (CEMS). Continuous emissions monitoring systems are required for Hg, PM, SO_2, NO_X, CO_2 (or O_2), and CO. Each CEMS shall be located such that representative measurements of emissions from the facility are obtained. The monitors shall be operated and maintained in accordance with the requirements of 40 CFR 75, 40 CFR 60, or 40 CFR 63, as applicable. [40 CFR 60.45; PPSC PA 77-09; and Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.13. and 0170004-052-AC (PSD-FL-383H); and, 40 CFR 63, Subpart UUUUU]

Test Methods and Procedures

A.25. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
1-4	Traverse Points, Velocity and Flow Rate, Gas Analysis, and Moisture Content These methods shall be performed as necessary to support other methods.
3	Gas Analysis for CO_2, O_2, Excess Air, and Dry Molecular Weight
3A	Determination of O_2 and CO_2 Concentrations in Emissions from Stationary Sources
3B	Gas Analysis for the Determination of Emission Rate Correction Factor or Excess Air
5	Determination of PM Emissions from Stationary Sources
5B	Determination of Nonsulfuric Acid PM Emissions from Stationary Sources
MATS 5	Determination of Filterable PM Emissions from Stationary Sources
6	Determination of SO_2 Emissions from Stationary Sources
6A	Determination of SO_2, Moisture, and CO_2 Emissions from Fossil Fuel Combustion Sources
6C	Determination of SO_2 Emissions from Stationary Sources (Instrumental Analyzer Procedure)
7	Determination of NO_X Emissions from Stationary Sources
7A	Determination of NO_X Emissions from Stationary Sources – Ion Chromatographic Method
7C	Determination of NO_X Emissions from Stationary Sources – Alkaline-Permanganate/Colorimetric Method
7D	Determination of NO_X Emissions from Stationary Sources – Alkaline-Permanganate/Ion Chromatographic Method
7E	Determination of NO_X Emissions from Stationary Sources (Instrumental Analyzer Procedure)
8 or 8A	Determination of SAM and SO_2 Emissions from Stationary Sources
9	Visual Determination of the Opacity of Emissions from Stationary Sources
10	Determination of CO Emissions from Stationary Sources {Note: The method shall be based on a continuous sampling train.}
18	Measurement of Gaseous Organic Compound Emissions by Gas Chromatography Concurrently with EPA Method 25A, EPA Method 18 may be used as an optional method to deduct emissions of methane and ethane from the total hydrocarbon (THC) emissions measured by Method 25A.

Method	Description of Method and Comments
19	Determination of SO_2 Removal Efficiency and PM, SO_2, and NO_X Emission Rates (Optional F-factor method may be used to determine flow rate and gas analysis to calculate mass emissions in lieu of Methods 1 – 4.
25A	Determination of Total Gaseous Organic Concentration Using a Flame Ionization Analyzer
26	Determination of HCl Emissions from Stationary Sources (Method 26 or Method 26 as modified by DARM-OGG-20, dated March 2016)
26A	Determination of Hydrogen Halide and Halogen Emissions from Stationary Sources – Isokinetic Method
30B	Determination of Total Vapor Phase Mercury Emissions from Coal-Fired Combustion Sources Using Carbon Sorbent Traps
CTM-027	Procedure for Collection and Analysis of Ammonia in Stationary Sources. This is an EPA conditional test method with a minimum detection limit of 1 ppm. Other equivalent methods may be used.

The above 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 unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; 40 CFR 60 Subpart D; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.18.; Permit No. 0170004-052-AC (PSD-FL-383H); 40 CFR 60 and 75; and, 40 CFR 63, Subpart UUUUU]

A.26. Common Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

A.27. Annual Compliance Tests Required. During each calendar year (January 1st to December 31st), Emissions Units 003 and 004 shall be tested to demonstrate compliance with the emissions standards for SAM in **Specific Condition A.11**. [Rule 62-297.310(8), F.A.C.; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.19.b.; 0170004-045-AC, Specific Condition 4.; and, 0170004-052-AC (PSD-FL-383H)]

A.28. Quarterly HCl Compliance Tests. If the permittee elects to comply with the HCl emissions limit in **Specific Condition A.15**, rather than the alternate SO_2 emissions limit, during each calendar quarter, both EU003 and EU004 shall be tested to demonstrate compliance with the MATS emissions standards for HCl, consistent with the requirements found in 40 CFR 63, Subpart UUUUU. [Table 2 to 40 CFR 63, Subpart UUUUU]

A.29. Compliance Tests Prior To Renewal. Except as provided in subparagraph 62-297.310(8)(b)3., F.A.C. (see Condition **TR7**.b.(3) in Appendix TR – Facility-wide Testing Requirements), in addition to the annual compliance tests specified above, compliance tests shall also be performed for ammonia slip and VOC prior to obtaining a renewed operation permit to demonstrate compliance with the emission limits in **Specific Conditions A.10** and **A.12**. [Rules 62-210.300(2)(a) and 62-297.310(8)(b), F.A.C.; and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.19.b.; 0170004-045-AC, Specific Condition 4.]

A.30. Visible Emissions Testing. When requested by the Department, the permittee shall conduct a VE test using EPA Method 9 to demonstrate compliance with the opacity standards contained in **Specific Conditions A.13** and **A.17**. [Rule 62-297.310(8)(c), F.A.C.; Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.8.e.; Permit No. 0170004-037-AC (PSD-FL-383F); 0170004-045-AC, Specific Condition 4.]

A.31. Compliance Testing Required. The permittee shall conduct emission testing in accordance with the requirements of 40 CFR 60.46. [40 CFR 60.46]

A.32. Compliance by CEMS. Compliance with the standards for emissions of Hg, PM, CO, NO_X, and SO_2 shall be demonstrated with data collected from the required continuous emissions monitoring systems, as follows:

a. The permittee shall comply with the conditions of Appendix F - Standard Continuous Emissions Monitoring Requirements of this permit as the compliance method for the corresponding emissions standards for PM, SO_2, NO_X, and CO found in **Specific Conditions A.6.c**, **A.7.e. and f.**, **A.9.e.**, and **A.14**, respectively. If specified by the applicable emission limiting standard, CEMS data collected during periods of startup, shutdown, and malfunction shall be included in the emissions compliance calculations.
b. The permittee shall comply with the requirements of 40 CFR 60 Subpart Da for compliance with the NSPS-based PM emission standard found in **Specific Condition A.6.a**.
c. The permittee shall comply with the requirements of 40 CFR 63 Subpart UUUUU for compliance with the MATS-based PM and Hg emission standards found in **Specific Condition A.6.b** and **A.16**, respectively.
d. The permittee shall comply with the requirements of 40 CFR 60 Subpart D for compliance with the NSPS-based SO_2 and NO_X emission standards found in **Specific Conditions A.7.a – d**, and **A.9a –d**, respectively.
e. The permittee shall comply with the requirements of 40 CFR 75 for compliance with the Acid Rain-based NO_X emission standard found in **Specific Condition A.9.f**.

[40 CFR 60, Subpart D; 40 CFR 63, Subpart UUUUU; 40 CFR 75; Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.A.15., 0170004-045-AC, Specific Condition 5.,and 0170004-052-AC]

A.33. SO_2 – Fuel Analysis. The permittee shall demonstrate compliance with the SO_2 limit in **Specific Condition A.8** by means of a fuel analysis provided by the vendor or the permittee upon each fuel delivery. [Rule 62-213.440, F.A.C.; Permit No. 0170004-006-AC]

Recordkeeping and Reporting Requirements

A.34. Reporting Schedule. The following reports and notifications shall be submitted to the Compliance Authority:

Report	Reporting Deadline	Related Condition(s)
Notice of Excess Emissions	Postmarked by the 30th day following the end of each 6-month period	**A.20** and **A.36**
MATS Semi-annual Report	Semi-annually	**A.37**

[Rule 62-213.440(1)(b), F.A.C.]

A.35. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

A.36. Excess Emissions Reports. Excess emissions, as defined in 40 CFR 60.45(g), shall be reported in accordance with the requirements of 40 CFR 60.45(g) and the schedule in **Specific Condition A.34**. [40 CFR 60.45(g)]

A.37. Semi-annual MATS Compliance Reporting. The permittee shall comply with the compliance reporting requirements specified 40 CFR 63.10031. Unless a different reporting schedule has been approved per 40 CFR 63.10(a), the MATS compliance report shall be submitted no later than July 31 or January 31, whichever date is the first date following the end of the semi-annual reporting period. [40 CFR 63.10031]

A.38. Other MATS Requirements. The permittee shall also comply with all other recordkeeping and reporting requirements specified in 40 CFR 63 Subpart UUUUU, as applicable. [40 CFR 63, Subpart UUUUU]

A.39. Control Device – Recordkeeping for Parametric Monitoring.

a. *SCR System.* The permittee shall continuously monitor and record the ammonia injection rate of the SCR control system. Data shall be reduced to 1-hour block averages.

b. *FGD System.* The permittee shall continuously monitor and record the limestone slurry injection rate of the FGD control system. Data shall be reduced to 1-hour block averages.

c. *AMM Systems*. The permittee shall continuously monitor and record the hydrated lime or ammonia injection rate of the AMM systems. Data shall be reduced to 1-hour block averages. Operation of the AMM systems shall be determined by Appendix CAM. The following additional conditions shall apply to the AMM systems:

(1) *Preventative Maintenance of AMM Systems*. To minimize malfunctions of the AMM systems and resulting excess SAM emissions, the permittee shall conduct annual preventive maintenance. The preventive maintenance shall be scheduled for a period when the unit (Unit 4 or Unit 5) is down for a scheduled outage, which occurs approximately every 18 months per unit. Records of maintenance of the AMM systems shall be kept for a period of 5 years.

(2) *Malfunction of AMM Systems*. The permittee shall maintain a list and inventory of spare parts associated with the AMM system equipment to facilitate quick repairs. When a malfunction occurs, the permittee shall immediately investigate to determine the corrective action required. For malfunctions that will require an extended period of time to repair, the permittee shall begin operation of the alternative AMM system.

[Rules 62-212.400(BACT) and 62-213.440(1)(b), F.A.C.; Permit Nos. 0170004-023-AC (PSD-FL-383C), Specific Conditions 3.A.25.a, b., c., & d., 0170004-037-AC (PSD-FL-383F), Specific Condition A.25.c.; 0170004-045-AC, Specific Condition 5.; and Permit No. 0170004-052-AC (PSD-FL-383H)]

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Subsection B. Emissions Unit 015

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

EU No.	Brief Description
015	Cooling Towers for FFSG Units 4 and 5

Emissions Unit 015 (EU 015) consists of cooling towers for FFSG Units 4 and 5 used to reduce plant discharge water temperature. These towers are hyperbolic cooling towers. Seawater is sprayed through the towers where induced air flow causes evaporative cooling. Water vapor, saltwater droplets (drift), and salt particles are emitted. Drift emissions controlled by high efficiency drift eliminators. The seawater flow rate is 331,000 gallons per minute.

{Permitting Note: This emissions unit is regulated under PSD Permit No. PSD-FL-007, issued by U.S. EPA, and as modified by U.S. EPA on November 30, 1988.}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum seawater flow rate shall not exceed 331,000 gallons per minute per cooling tower. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

B.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

B.3. Hours of Operation. This emissions unit may operate continuously. [Rule 62-210.200(PTE), F.A.C.]

Monitoring of Operations

B.4. Inspection. The drift eliminators of both towers shall be inspected from the concrete walkways not less than every three months by Duke Energy Florida staff or representatives to assure that the drift eliminators are clean and in good working order. Not less than annually, a complete inspection of the towers shall be conducted by a qualified inspector with recognized expertise in the field. Certification that the drift eliminators are properly installed and in good working order shall be provided in the record keeping and reporting requirements noted below. [Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

Test Methods and Procedures

B.5. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Recordkeeping and Reporting Requirements

B.6. Reporting. Reports on tower inspection shall be handled as follows:
a. Maintained within on-site files within 30 days after all visual inspections of the drift eliminators.
[Rule 62-213.440, F.A.C.; and, Modified PSD permit, PSD-FL-007, issued by EPA 11/30/88]

B.7. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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

EU No.	Brief Description
016	Material Handling Activities for Coal-Fired Steam Units

Emissions Unit 016 (EU 016) consists of material handling activities for coal-fired steam units. This emissions unit consists of two electric driven crane-operated clam-shell buckets mounted on a traveling gantry, enclosed conveyor belts, coal crushers and storage bunkers used for the storage and transport of coal, for FFSG Units 4 and 5. The barge unloading capabilities are 2,500 tons per hour (1,250 tons per hour per crane) and 32,000 tons per day. This unit also encompasses fly ash and bottom ash handling equipment associated with Units 4 and 5 which are not addressed by other emissions units.

{Permitting Note: This emissions unit is regulated partially under Power Plant Siting Certification PA 77-09 (Units 4 and 5) and is subject to NSPS 40 CFR 60 Subpart Y. This emissions unit is also regulated under permit number 0170004-014-AC, which authorized the replacement of the barge unloading equipment to decrease the time required to unload coal barges.}

Essential Potential to Emit Parameters

C.1. Containment of Fugitive Emissions. To the extent possible, the equipment that comprises the coal processing equipment at this facility (crushers, conveyors, drop points, and storage bunkers) shall be covered or enclosed at all times when the equipment is in operation. Except for the barge load-out and the stacker reclaimer sections of the conveying system that are required by design to be open, and which are not specifically subject to regulation under 40 CFR 60 Subpart Y, any other open section of the coal processing equipment shall be required to have an annual emission test conducted upon it, as specified in **Specific Condition C.9**. [Permit No. 0170004-014-AC]

C.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

C.3. Hours of Operation. This emissions unit may operate continuously. [Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

Unless otherwise specified, the averaging time for **Specific Condition C.4** is based on the specified averaging time of the applicable test method.

C.4. Visible Emissions. The permittee shall not cause to be discharged into the atmosphere from any coal processing and conveying equipment, coal storage system, or coal transfer and loading system processing coal, gases which exhibit 20 percent opacity or greater, 6-minute average. [PPSC PA 77-09 (coal facilities associated with Units 4 and 5); 40 CFR 60.254(a); and Permit No. 0170004-014-AC]

Excess Emissions

Rule 62-210.700 (Excess Emissions), F.A.C., cannot vary any requirement of an NSPS, NESHAP, or Acid Rain program provision.

C.5. Excess Emissions Allowed. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24-hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

C.6. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700(1), F.A.C.]

Test Methods and Procedures

C.7. Test Methods. When required, tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources
22	Visual Determination of Fugitive Emissions from Material Sources and Smoke Emissions form Flares

The above 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 unless prior written approval is received from the Department. [Rule 62-204.800, F.A.C.; and Permit No. 0170004-014-AC]

C.8. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

C.9. Visible Emissions. **(This condition applies to coal facilities associated with Emissions Units 004 and 003 – FFSG Units 4 and 5.)** When required by the Department, or annually as specified in **Specific Condition C.1**, EPA Method 9 and the procedures in 40 CFR 60.11 shall be used to determine opacity, except for the following specifications:

a. The duration of the Method 9 performance test shall be 1 hour (ten 6-minute averages).
b. If, during the initial 30 minutes of the observation period of the Method 9 performance test, all the 6-minute average opacity readings are less than or equal to half the applicable opacity limit, then the observation period may be reduced from 1 hour to 30 minutes.

[40 CFR 60.254 & 60.257(a)(1); and Permit No. 0170004-014-AC]

*{Permitting Note: Except as specified in **Specific Condition C.1**, annual testing is not required because the regulated emissions points are either enclosed or confined within a building.}*

{Permitting Note: For those emissions points containing a baghouse (ash silos), the permittee shall perform and record the results of weekly qualitative observations of visible emissions checks (e.g., Method 22) with follow-up Method 9 tests within 24 hours of any abnormal visible emissions.}

Recordkeeping and Reporting Requirements

C.10. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

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Subsection D. Emissions Unit 023

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

EU No.	Brief Description
023	Limestone and Gypsum Material Handling Activities

The flue gas desulfurization (FGD) systems include limestone storage and handling, limestone preparation, limestone slurry injection, and gypsum dewatering, transfer and storage. The limestone handling system receives, stores, sizes and transfers limestone to the FGD system's limestone preparation equipment. It receives limestone delivered to the plant by rear dump trucks unloading into aboveground truck unloading feeders with integral hoppers. The system consists of: a conveyor to transfer limestone received from truck unloading feeders; an unloading and the stacking belt conveyor to transfer limestone to a covered storage pile; a portal scraper reclaimer and an emergency reclaim feeder; a reclaim conveyor to transfer limestone from the storage pile to a crusher feed belt conveyor, which transfers limestone to a crusher building for limestone sizing; a plant feed belt conveyor and silo feed belt conveyors to transfer limestone to the day silos.

The plant feed conveyor is equipped with a diverter gate and supplies limestone to the first limestone day silo (Silo B) directly via a chute and to the other limestone day silos (Silos A & C) using a reversible conveyor.

Limestone silos are equipped with a pulse-jet fabric filter dust collection system. Dust collectors are provided at each of the truck unloading feeders. A dust collection system is also provided for the crusher building. A water-fog dust suppression system is provided at the discharge point of the reclaim conveyor and at the tail end of the crusher feed conveyor to suppress the limestone dust formation.

The limestone preparation system includes wet ball mill grinding systems to produce limestone slurry. Filtrate-recycle water from the FGD system is used to prepare the limestone slurry to conserve make-up water. Fugitive dust emissions are minimized by enclosures and the addition of water for the slurry.

The gypsum slurry from the FGD system is delivered by bleed pumps to the dewatering system, which consists of a filter feed tank, hydro-cyclones, vacuum belt filters, vacuum pumps, filtrate tanks, filtrate pumps, lined piping, and associated valves. The incoming gypsum slurry contains approximately 18 to 22% suspended solids. Using a series of hydro-cyclones and three horizontal vacuum belt filters, the dewatering system removes water until the slurry contains approximately 90% solids. Filtrate removed from the slurry is stored and pumped back to the limestone preparation system or the absorber module. The de-watering system is located inside a building. Fugitive dust emissions are negligible because the system is enclosed and wet.

A collecting belt conveyor collects dewatered gypsum from the vacuum belt filters in the dewatering system. Under normal operating conditions, this conveyor feeds gypsum onto a system of conveyors, which transfer the gypsum onto a gypsum handling pad or to the future wallboard plant. The gypsum handling pad is located northeast of the dewatering facility and is used primarily (until the future adjacent wallboard facility is built) to store the gypsum until it can be transferred offsite for beneficial use or disposal. In addition, the gypsum handling pad may be used to store "off-specification" gypsum if needed. Fugitive dust emissions are minimal because the dewatered gypsum still contains approximately 10% water.

{Permitting Note: This emissions unit is regulated under Rule 62-212.400(PSD), F.A.C., and is subject to 40 CFR 60, Subpart A, General Provisions, and Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, both adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

Essential Potential to Emit (PTE) Parameters

D.1. Permitted Capacity. The operational capacities of the material handling activities are not limited. For informational purposes, the maximum limestone processing rate is estimated at 100 tons per day. [Permit No 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.4.]

D.2. Hours of Operation. None of the emissions units in this subsection are restricted by hours of operation, and they may operate continuously. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.4.]

Control Technology

D.3. Control Equipment. To comply with the standards of this permit, the permittee shall operate and maintain the following air pollution control equipment.

Process Activity	Emissions Point No.	Control Device	Design Outlet Dust Loading Specification
Dry Limestone Handling System			
Limestone conveyors (general)	---	Covered	---
Limestone reclaim conveyor (discharge)	---	dust suppressant	---
Dump trucks	---	Covered	---
Two truck unloading feeders w/integral hoppers	EP-1A EP-1B	one dust collector per hopper	0.010 grains/dscf
Limestone storage	---	covered pile	---
Limestone crushing and sizing	EP-2	enclosed building w/baghouse	0.010 grains/dscf
Limestone silo feed conveyors and 3 Limestone day silos	EP-3	one dust collector	0.010 grains/dscf
Gypsum Dewatering System			
Gypsum dewatering system	---	enclosure/wet	---
Gypsum Handling System			
Gypsum handling system	---	enclosure/wet	---
Gypsum Handling Pad	---	water spray	---

Initial and replacement bags shall be selected based on the above design outlet dust loading specification. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.2.]

D.4. Fugitive Dust Emissions. The dry limestone handling and storage operations shall be enclosed to the extent practicable and confined to prevent fugitive dust emissions. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.3.]

Emission Limitations and Standards

D.5. Visible Emissions. As determined by EPA Method 9, visible emissions from each baghouse and dust collector exhaust point shall not exceed 5% opacity, based on a 6-minute average. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.5.]

D.6. Circumvention. The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.6.]

D.7. NSPS Subpart OOO Provisions. The limestone crushing activities are subject to the applicable requirements in NSPS Subpart OOO of 40 CFR 60. See Appendix NSPS, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants, of this permit. [40 CFR 60.670(a)(1)]

Test Methods and Procedures

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

EPA Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources

The above 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 unless prior written approval is received from the Department. [Rule 62-297.401, F.A.C. and Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.11.]

D.9. Testing Requirements. Unless otherwise specified, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

D.10. Annual Compliance Tests Required. During each calendar year (January 1st – December 31st), each baghouse exhaust point shall be tested to demonstrate compliance with the specified opacity standard. [Permit Nos. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.9. and 0170004-052-AC (PSD-FL-383H)]

D.11. Test Method. Opacity tests shall be conducted in accordance with EPA Method 9, which is described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.11.]

D.12. Test Procedures. Tests shall be conducted in accordance with all applicable requirements of Chapter 62-297, F.A.C. The minimum observation period for a visible emissions compliance test shall be 30 minutes. The observation period shall include the period during which the highest opacity can reasonably be expected to occur. The permittee shall record the actual processing rate for the emissions unit being tested. [Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.12.]

Recordkeeping and Reporting Requirements

D.13. Operational Records. The permittee shall maintain the following records on-site to demonstrate compliance with the specifications and limitations of this subsection. All records shall be made available to the Department and Compliance Authority upon request.
a. Records of the design outlet dust loading specifications for new and replacement fabric filter bags; and
b. For each month, record the total limestone processed for the month and the previous 12 months.
[Permit No. 0170004-023-AC (PSD-FL-383C) Specific Condition 3.B.16]

D.14. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440, F.A.C.]

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The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
051	CCCS Unit 1A – Nominal 300 MW CTG with Duct-Fired HRSG*
052	CCCS Unit 1B – Nominal 300 MW CTG with Duct-Fired HRSG*
042	CCCS Unit 2A – Nominal 300 MW CTG with Duct-Fired HRSG*
043	CCCS Unit 2B – Nominal 300 MW CTG with Duct-Fired HRSG*
*Steam produced in the four duct-fired HRSGs will drive two 352 MW steam turbine-electric generators.	

The CCCS consists of 2 power blocks. Each power block consists of: two natural gas-fired Mitsubishi Power Systems 501GAC combustion turbine-electric generators (CTGs), one steam turbine-electric generator, two heat recovery steam generators (HRSGs) equipped with natural gas-fired duct burners (DB) and selective catalytic reduction (SCR) reactors.

Emissions from the units are controlled by inherently clean fuels, lean premix combustion technology such as dry low-NO_X (DLN), and SCR reactors.

Each HRSG has stack parameters as follows: stack height of approximately 180 feet; stack exit diameter of 22 feet; stack exit temperature of 185°F; stack gas flow rate of 1,354,243 actual cubic feet per minute (acfm); and stack gas water vapor content of approximately 9.55%.

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

{Permitting Note: These emissions units are regulated under 40 CFR 60, Subpart A, General Provisions, Subpart KKKK, Standards of Performance for Stationary Combustion Turbines, and Subpart TTTT, Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units, all adopted and incorporated by reference in Rule 62-204.800, F.A.C.}

{Permitting Note: Pursuant to 40 CFR 63.6095(d), these emissions units are not subject to regulation under 40 CFR 63, Subpart YYYY, NESHAP for Stationary Combustion Turbines, because the standards for gas-fired subcategories have been stayed by the US EPA until further notice.}

Essential Potential to Emit (PTE) Parameters

E.1. Permitted Capacity. The maximum permitted heat input rate of each CTG is 2,938 MMBtu/hour. The maximum permitted heat input rate of each duct burner located within each HRSG is 275 MMBtu/hour. The maximum heat input rates are based on 100% load, the HHV of natural gas, and compressor inlet conditions of 59°F, 60% relative humidity, and 14.7 psia. Heat input rates will vary depending upon the compressor inlet conditions and characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other compressor inlet conditions shall be maintained on site. [Rule 62-210.200(PTE), F.A.C.; and Permit Nos. 0170004-055-AC and 0170004-057-AC]

E.2. Emissions Unit Operating Rate Limitation After Testing. See the related testing provisions in Appendix TR, Facility-wide Testing Requirements. [Rule 62-297.310(3), F.A.C.]

E.3. Methods of Operation – Fuels. 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 E.25.** below. [Permit No. 0170004-055-AC Specific Condition A.7]

*{Permitting Note: This SIP-based fuel specification is more stringent than the NSPS-based specification given in **Specific Condition E.9.** Periods during which sulfur content exceeds 2 gr/100 SCR are not permitted.}*

E.4. Hours of Operation. The hours of operation of CCCS Units 1 and 2 are not limited. The duct burners may be fired up to 16,000 hours aggregated over the four HRSG during any calendar year. [Rule 62-210.200(PTE), F.A.C.; and Permit No. 0170004-055-AC Specific Condition A.8]

Control Equipment

E.5. Dry Low-NO_X Combustion. The 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. [Permit No. 0170004-055-AC Specific Condition A.5a]

E.6. Selective Catalytic Reduction System. The permittee shall operate, tune, 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 E.8.** 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. [Permit No. 0170004-055-AC Specific Conditions A.5b & A.5c]

Emission Limitations and Standards

E.7. 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. [40 CFR 60.4333(a)]

E.8. 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]

[Permit No. 0170004-055-AC; 40 CFR 60.4320(a), 60.4340(b)(1) and 60.4350(h)]

E.9. NSPS Subpart KKKK 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 E.3.** above further ensures compliance with the SO_2 standard. [Permit No. 0170004-055-AC; 40 CFR 60.4330(a)(2), 60.4365 and 60.4370]

E.10. 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]

E.11. Visible Emissions (VE).

a. *VE 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.

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.

c. *Alternate VE 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.

{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.}

{Permitting Note: The below table is a summary of the alternative VE standard durations for the possible startup and shutdown events for CCCS Units 1 and 2.}

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

[Rules 62-210.200(Definitions) and 62-210.700, F.A.C.; and Permit No. 0170004-055-AC Specific Condition A.13]

Monitoring Requirements

E.12. CEMS. The permittee shall 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 calibrate, maintain, and operate a CO_2 CEMS or heat input monitoring system to demonstrate compliance with the NSPS Subpart TTTT emission standards. [Permit No. 0170004-055-AC; 40 CFR 60.4340(b)(1); 40 CFR 60.5535(b)(1) and 60.5535(c)]

E.13. 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 permittee 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 permittee may satisfy the requirements of this paragraph by implementing the QA program and plan described in 40 CFR 75, Appendix B, Section 1.

[40 CFR 60.4345]

Excess Emissions – NSPS

{Permitting Note: The following conditions apply to the NSPS emissions standards applicable to the CTG/HRSGs.}

E.14. 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 40 CFR 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 E.8.**). 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 29 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. [40 CFR 60.7(c) and 40 CFR 60.4375 and 60.4380]

E.15. Excess Emissions Reporting Requirement – SO_2. **Specific Condition E.9.** requires the permittee to submit 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. 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. [40 CFR 60.4365]

*{Permitting Note: The applicable Department SIP-based fuel sulfur limitation of 2 gr/100 SCF in **Specific Condition E.3.** further ensures there will be no excess emissions of the greater NSPS Subpart KKKK sulfur/SO_2 standards.}*

Excess Emissions – SIP

E.16. 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 62-210.200(Definitions) and 62-210.700(1), F.A.C.]

E.17. 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. [Permit No. 0170004-055-AC Specific Condition A.19]

Test Methods and Procedures

E.18. Operating Rate During Testing. Initial and annual stack tests shall be conducted at 90% or greater of the design heat input ratings and corrected per the manufacturer's performance curves in accordance with **Specific Condition E.1.** [Rule 62-297.310, F.A.C.; and Permit No. 0170004-055-AC Specific Condition A.20]

E.19. Annual Compliance Tests Required. Annual compliance tests for visible emissions (opacity) shall be conducted during each calendar year (January 1st to December 31st). [Rule 62-297.310(8)(a)3, F.A.C.]

E.20. 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. [40 CFR 60 Subpart KKKK; and Permit No. 0170004-055-AC Specific Condition A.23]

E.21. Test Notification Requirements. The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required 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(9), F.A.C.]

E.22. Test Methods. When required, 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.; and 40 CFR 60 Appendix A]

Recordkeeping and Reporting Requirements

E.23. 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. [Permit No. 0170004-055-AC Specific Condition A.27]

E.24. 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. [Permit No. 0170004-055-AC Specific Condition A.28]

E.25. Fuel Sulfur Records. Compliance with the fuel sulfur limit for natural gas given in **Specific Condition E.3.** 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 62-4.160(15), F.A.C.; and Permit No. 0170004-055-AC Specific Condition A.29]

E.26. 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(10), F.A.C. [Rule 62-297.310(10), F.A.C.]

E.27. 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 40 CFR 60.4320; or (2) the total sulfur content of the fuel being combusted in the affected facility exceeds the limit specified in 40 CFR 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.

{Permitting 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)]

E.28. 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. [40 CFR 98]

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

EU No.	Brief Description
044	Auxiliary Boiler

The auxiliary boiler is fired with natural gas only. The design heat input capacity of the auxiliary boiler is 83 MMBtu/hour. The stack parameters are as follows: stack height, 50 feet; stack exit diameter, 5 feet; and, stack gas exit temperature, 300°F.

{Permitting Note: This emissions units is regulated under 40 CFR 60, Subpart A, General Provisions, and Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, both adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and 40 CFR 63, Subpart A, General Provisions, and Subpart DDDDD, NESHAP for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters, both adopted and incorporated by reference in Rule 62-204.800, F.A.C.; and Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less Than 250 MMBtu/Hour Heat Input, New and Existing Emissions Units.}

Essential Potential to Emit (PTE) Parameters

F.1. Permitted Capacity. The maximum permitted heat input rate for the auxiliary boiler is 83 MMBtu/hour, based on the higher heating value of natural gas. [Permit No. 0170004-055-AC Specific Condition B.3]

F.2. Hours of Operation. The hours of operation of the auxiliary boiler shall not exceed 2,000 hours per year. [Permit No. 0170004-055-AC Specific Condition B.4]

F.3. Methods of Operation – Fuels. The fuel used in the auxiliary boiler is restricted to natural gas. [Permit No. 0170004-055-AC Specific Condition B.5]

Emission Limitations and Standards

F.4. 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. [Permit No. 0170004-055-AC; BACT pursuant to Rule 62-296.406(2) and (3), F.A.C.]

F.5. Visible Emissions. 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.}

F.6. NESHAP Subpart DDDDD Work Practice Standard. The auxiliary boiler is subject to the Work Practice 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:
   1) 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;
   2) A description of any corrective actions taken as a part of the tune-up; and
   3) 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.

[40 CFR 63.7540(a)(10), 63.7500 and Table 3 to Subpart DDDDD]

{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.}

Recordkeeping and Reporting Requirements

F.7. NSPS Dc Fuel Records. The permittee shall record and maintain records of the amount of fuel combusted during each operating day. Alternatively, the permittee has the option to record and maintain records of the amount of fuel combusted during each calendar month. [40 CFR 60.48c(g)(1) & (2)]

F.8. NESHAP DDDDD Annual Compliance Report. The permittee shall submit an annual compliance report containing the following information:
a. Company and facility name and address;
b. Process unit information, emissions limitations, and operating parameter limitations, if applicable;
c. Date of report and beginning and ending dates of the reporting period;
d. The date of the most recent tune-up, including the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown; and
e. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

[40 CFR 63.7550(a), (b), & (c)(1)]

F.9. NESHAP DDDDD Records. The permittee shall keep the following records:
a. A copy of each notification and report that was submitted to comply with this permit, including all documentation supporting any Initial Notification or Notification of Compliance Status or annual compliance report that was submitted to the Department.
b. Records of tune-up results specified in **Specific Condition F.6. f** of this subsection.

[40 CFR 63.7555(a)]

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The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
038	Two Fire Pump House Emergency Diesel Generators for North Plant
039	175 kW Emergency Diesel Generator for Site Administration Building

{Permitting Note: These reciprocating internal combustion engines (RICE) are regulated under 40 CFR 63, Subpart A, General Provisions, and Subpart ZZZZ, NESHAP for Stationary RICE, both adopted and incorporated by reference in Rule 62-204.800, F.A.C. This permit section addresses "existing" emergency stationary RICE with a displacement of less than 10 liters per cylinder that are located at a major source of HAP and that commenced construction before June 12, 2006. These RICE have not been modified or reconstructed after June 12, 2006.}

{Permitting Note: Pursuant to 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition RICE, these RICE are "existing" emergency engines that have not been modified or reconstructed after July 11, 2005. Therefore, they are not subject to 40 CFR 60, Subpart IIII.}

Essential Potential to Emit (PTE) Parameters

G.1. Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary RICE in emergency situations. [40 CFR 63.6640(f)(1)]

b. *Other Situations*. These RICE may be operated for maintenance and testing specified in this paragraph for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph c of this condition counts as part of the 100 hours per calendar year allowed by this paragraph. These RICE are authorized to operate for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by federal, state, or local government, the manufacturer, the vendor, or the insurance company associated with the engines. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The permittee 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 permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year. [40 CFR 63.6640(f)(2)(i)]

c. *Non-Emergency Situations*. These RICE 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 provided in paragraph b., above. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR 63.6640(f)(3)]

G.2. Work or Management Practice Standards.

a. *Oil*. Change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR 63.6602 and Table 2c to Subpart ZZZZ]

b. *Air Cleaner*. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6602 and Table 2c to Subpart ZZZZ]

c. *Hoses and Belts*. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR 63.6602 and Table 2c to Subpart ZZZZ]

d. *Operation and Maintenance*. Operate and maintain the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions or develop and follow your own maintenance plan which must provide, to the extent practicable, for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e), 63.6640(a) & Table 6 to Subpart ZZZZ]

e. *Engine Startup*. During periods of startup, the permittee must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes. [40 CFR 63.6625(h)]

f. *Oil Analysis*. The permittee has the option of using an oil analysis program to extend the oil change requirement. The oil analysis must be performed at the same frequency specified for changing the oil in paragraph a., above. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. [40 CFR 63.6625(i)]

Monitoring Requirements

G.3. Hour Meter. The permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 63.6625(f)]

Compliance Requirements

G.4. Continuous Compliance. Each unit shall be in compliance with the emission limitations and operating standards in this section at all times. [40 CFR 63.6605(a)]

G.5. Operation and Maintenance of Equipment. At all times the permittee must operate and maintain, any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the compliance authority which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

Recordkeeping and Reporting Requirements

G.6. Delay of Performing Work Practice Requirements. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in **Specific Condition G.2**, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under federal, state, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under federal, state, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under federal, state, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the federal, state or local law under which the risk was deemed unacceptable. [40 CFR 63, Subpart ZZZZ, Table 2c, footnote 1]

G.7. Performance and Compliance Records. The permittee must keep:

a. A copy of each notification and report that the permittee submitted to comply with this section, including all documentation supporting any Initial Notification or Notification of Compliance Status that the permittee submitted. [40 CFR 63.6655(a)(1)]

b. Records of the occurrence and duration of each malfunction of operation. [40 CFR 63.6655(a)(2)]

c. Records of all required maintenance performed on the hour meter. [40 CFR 63.6655(a)(4)]

d. Records of actions taken during periods of malfunction to minimize emissions in accordance with **Specific Condition G.5**, including corrective actions to restore malfunctioning process and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
e. Records of the actions required in **Specific Condition G.2.d** to show continuous compliance with each emission limitation or operating requirements. [40 CFR 63.6655(d)]
f. Records of the Work or Management Practice Standards specified in **Specific Condition G.2**. [Rule 62-213.440(1)(b)2a, F.A.C.]
g. Records of the maintenance conducted in order to demonstrate that the RICE was operated and maintained according to your own maintenance plan. [40 CFR 63.6655(e)]
h. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee must document how many hours are spent for emergency operation including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]

G.8. Record Retention.
a. The permittee must keep records in a suitable and readily available form for expeditious reviews.
b. The permittee must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record.
[40 CFR 63.6660 and 40 CFR 63.10(b)(1)]

General Provisions

G.9. 40 CFR 63, Subpart A – General Provisions. The permittee shall comply with the following applicable requirements of 40 CFR 63 Subpart A – General Provisions, which have been adopted by reference in Rule 62-204.800, F.A.C., except that the Secretary is not the Administrator for purposes of 40 CFR 63.5(e), 40 CFR 63.5(f), 40 CFR 63.6(g), 40 CFR 63.6(h)(9), 40 CFR 63.6(j), 40 CFR 63.13, and 40 CFR 63.14. Link to 40 CFR 63, Subpart A - General Provisions

General Provisions Citation	Subject of Citation
§63.1	General applicability of the General Provisions
§63.2	Definitions (additional terms defined in 43 CFR 63.6675)
§63.3	Units and abbreviations
§63.4	Prohibited activities and circumvention
§63.5	Construction and reconstruction
§63.6(a)	Applicability
§63.9(a)	Applicability and State delegation of notification requirements
§63.9(b)(1)-(5)	Initial notifications (except that §63.9(b)(3) is reserved)
§63.9(i)	Adjustment of submittal deadlines
§63.9(j)	Change in previous information
§63.10(a)	Administrative provisions for recordkeeping/reporting
§63.10(b)(1)	Record retention
§63.10(b)(2)(vi)–(xi)	Records
§63.10(b)(2)(xii)	Record when under waiver
§63.10(b)(2)(xiv)	Records of supporting documentation
§63.10(b)(3)	Records of applicability determination
§63.10(d)(1)	General reporting requirements
§63.10(f)	Waiver for recordkeeping/reporting
§63.12	State authority and delegations
§63.13	Addresses

General Provisions Citation	Subject of Citation
§63.14	Incorporation by reference
§63.15	Availability of information

[40 CFR 63.6645(a), 63.6665, & Table 8 to Subpart ZZZZ of Part 63]

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The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
029	South Yard Fire Pump Engine
046	1,500 kW ULSD Emergency Generator
047	1,500 kW ULSD Emergency Generator
048	305 HP ULSD Emergency Firewater Pump Engine
054	New 125 kW Emergency Diesel Generator for Unit 3 Spent Fuel Storage Area

The South Yard fire pump engine is an emergency 460 HP,14.5-liter, diesel-fired engine. The 125 kW emergency diesel generator serves the Unit 3 spent fuel storage area. Emissions Units 046 – 048 serve the CCCS power blocks. These engines fire ultra-low sulfur diesel (ULSD) fuel. The following table provides important details for the engines.

Engine Identification	Engine Brake HP	Date of Manufacture	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
029	460	2008 2009 installed	2008	2.4	Caterpillar	3406C
046	2,200	2016	2016	<10	Cummins	QSK50-G4
047	2,200	2016	2016	<10	Cummins	QSK50-G4
048	305	2016	2016	<10	Clarke	JU6H-UFADX8
054	168	2016	2016	1.2	Caterpillar	C7.1

{Permitting Note: These compression ignition (CI) RICE are regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE, and 40 CFR 60, Subpart IIII, Standards of Performance for Stationary CI ICE, both adopted and incorporated by reference in Rule 62-204.800, F.A.C. These are "new" stationary emergency CI RICE with a displacement of less than 10 liters per cylinder, located at a major source of HAP, that commenced construction on or after June 12, 2006, and that have a post-2007 model year. In accordance with the provisions of 40 CFR 63.6590(c), by meeting the requirements of 40 CFR 60, Subpart IIII, the requirements of 40 CFR 63, Subpart ZZZZ, are met. There are no further requirements for these engines under 40 CFR 63, Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

H.1. Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary CI ICE in emergency situations. [40 CFR 60.4211(f)(1)]

b. *Maintenance and Testing*. These CI 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, or the insurance company associated with the engine. Maintenance checks and readiness testing of these CI ICE are limited to 100 hours per calendar year per CI ICE. [40 CFR 60.4211(f)(2)(i)]

c. *Non-Emergency Situations*. These CI ICE may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year for maintenance and testing. These CI ICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. [40 CFR 60.4211(f)(3)]

H.2. Authorized Fuel. These CI ICE must use diesel fuel that meets the following requirements for non-road diesel fuel:

a. *Sulfur Content.* The sulfur content shall not exceed 15 parts per million (=0.0015%), by weight, for non-road diesel fuel.
b. *Cetane and Aromatic.* The fuel must have a minimum cetane index of 40 or must have a maximum aromatic content of 35 volume percent.

[40 CFR 60.4207(b) and 40 CFR 80.510]

H.3. Operation and Maintenance. Except as permitted in **Specific Condition H.6**, the permittee must operate and maintain the stationary CI ICE according to the manufacturer's written instructions or procedures developed by the permittee that are approved by the engine manufacturer. In addition, owners and operators ma only change those settings that are permitted by the manufacturer. These CI ICE must be maintained and operated to meet the emission limits in **Specific Condition H.4** over the entire life of the engines. [40 CFR 60.4206, 4211(a)(1), (2), & (3)]

Emission Limitations and Standards

H.4. Emission Limitations. Each CI ICE must meet the following emission limitations, as applicable:

Emissions Unit	Emission Limitations [a]		
	CO	PM	$NMHC+NO_X$
029	3.5	0.20	4.0
046	3.5	0.20	6.4
047	3.5	0.20	6.4
048	3.5	0.20	4.0
054	5.0	0.30	4.0

a. Emission limitations are in grams per kilowatt-hour (g/kW-hr).

[40 CFR 60, Subpart IIII]

Compliance Requirements

H.5. Engine Certification Requirements. The permittee must comply with the emissions standards specified above by having purchased an engine certified by the manufacturer to meet those limits. The engine must have been installed and configured according to the manufacturer's emission-related specifications, except as permitted in **Specific Condition H.6**. [40 CFR 60.4211(c)]

H.6. Compliance Requirements Due to Loss of Certification.

a. *Emissions Units 029, 048, and 054.* If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. [40 CFR 60.4211(g)(2)]
b. *Emissions Units 046 and 047.* If you do not install, configure, operate, and maintain your engine and control device according to the manufacturer's emission-related written instructions, or you change emission-related settings in a way that is not permitted by the manufacturer, you must keep a maintenance plan and records of conducted maintenance and must, to extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, you must conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within 1 year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-

related written instructions, or within 1 year after you change emission-related settings in a way that is not permitted by the manufacturer. You must conduct subsequent performance testing every 8,760 hours of engine operation or 3 years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards. [40 CFR 60.4211(g)(3)]

Test Methods and Procedures

H.7. Testing Requirements. In the event performance tests are required pursuant to **Specific Condition H.6**, the following requirements shall be met:

a. *Testing Procedures*. The performance test must be conducted according to the in-use testing procedures in 40 CFR Part 1039, Subpart F.

b. *NTE Standards*. Exhaust emissions from these engines must not exceed the not-to-exceed (NTE) numerical requirements, rounded to the same number of decimal places as the applicable standard (STD) in **Specific Condition H.4**, determined from the following equation:

NTE Requirement for Each Pollutant = (1.25) x (STD)

[40 CFR 60.4212(a) & (c)]

H.8. Common Testing Requirements. Unless otherwise specified and if required, tests shall be conducted in accordance with the requirements and procedures specified in Appendix TR, Facility-Wide Testing Requirements, of this permit. [Rule 62-297.310, F.A.C.]

Monitoring Requirements

H.9. Hour Meter. The permittee must install a non-resettable hour meter if one is not already installed. [40 CFR 60.4209(a)]

Recordkeeping and Reporting Requirements

H.10. Hours of Operation Records. The permittee must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The permittee must record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR 60.4214(b)]

H.11. Maintenance Records. To demonstrate compliance with the manufacturer's written instructions for maintaining the certified engines and to document when compliance testing must be performed pursuant to **Specific Condition H.6**, the permittee must keep the following records:

a. Engine manufacturer documentation and certification indicating compliance with the standards.

b. A copy of the manufacturer's written instructions for operation and maintenance of the certified engines.

c. A written maintenance log detailed the date and type of maintenance performed on the engines, as well as any deviations from the manufacturer's written instructions.

[Rule 62-213.400(1), F.A.C.]

H.12. Testing Notification. At such time that the requirements of **Specific Condition H.6** become applicable, the permittee shall notify the compliance authority of the date by which the initial compliance test must be performed. [Rule 62-213.440(1), F.A.C.]

H.13. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

H.14. 40 CFR 60, Subpart A – General Provisions. The permittee shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below.

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions

General Provisions Citation	Subject of Citation
§ 60.2	Definitions (see also § 60.4219)
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4218]

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

EU No.	Brief Description
055	85 HP Emergency Generator (Telecommunications Tower)

Emissions Unit 055 is an 85 HP propane- or natural gas-fired emergency generator located at the new telecommunications tower, manufactured in 2015 and certified by the manufacturer to meet the applicable emissions limits in 40 CFR 60, Subpart JJJJ. The engine was installed in 2017.

Engine Identification	Engine Brake HP	Date of Manufacture	Model Year	Displacement liters/cylinder (l/c)	Engine Manufacturer	Model No.
Telecom Tower Emergency Generator	85	2015	2015	1.0	Cummins	QSJ5.9G-G1

{Permitting Note: This spark ignition (SI) ICE is regulated under 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary RICE, and 40 CFR 60, Subpart JJJJ, Standards of Performance for Stationary SI ICE, both adopted and incorporated by reference in Rule 62-204.800, F.A.C. This is a "new" stationary emergency SI ICE with a displacement of less than 10 liters per cylinder, located at a major source of HAP, that commenced construction on or after June 12, 2006, and that has a post-2007 model year. In accordance with the provisions of 40 CFR 63.6590(c), by meeting the requirements of 40 CFR 60, Subpart JJJJ, the requirements of 40 CFR 63, Subpart ZZZZ, are met. There are no further requirements for this engine under 40 CFR 63, Subpart ZZZZ.}

Essential Potential to Emit (PTE) Parameters

I.1. Authorized Fuel. This engine is authorized to use propane, LPG, or natural gas. [Rules 62-210.200(PTE) and 62-213.440(1)(b), F.A.C.]

I.2. Hours of Operation.

a. *Emergency Situations*. There is no time limit on the use of emergency stationary SI ICE in emergency situations. [40 CFR 60.4243(d)(1)]

b. *Maintenance and Testing*. This SI 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, or the insurance company associated with the engine. Maintenance checks and readiness testing of this ICE are limited to 100 hours per calendar year. [40 CFR 60.4243(d)(2)(i)]

c. *Non-Emergency Situations*. This SI ICE may operate up to 50 hours per calendar year in non-emergency situations, but those 50 hours are counted towards the 100 hours per calendar year for maintenance and testing. This SI ICE cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply non-emergency power as part of a financial arrangement with another entity. [40 CFR 60.4243(d)(3)]

Emission Limitations and Standards

I.3. NO_X + HC Emissions. Emissions of NO_X plus hydrocarbons (HC) shall not exceed 10 grams per horsepower-hour (g/hp-hour). [40 CFR 60.4231(c) & 4233(c); and 40 CFR 90.103(a), Table 1]

I.4. CO Emissions. Emissions of CO shall not exceed 387 g/hp-hour. [40 CFR 60.4231(c) & 4233(c); and 40 CFR 90.103(a), Table 1]

Compliance Requirements

I.5. Engine Certification Requirements. To the comply with the emission standards specified in **Specific Conditions I.3 and I.4**, the SI ICE must be certified to meet the emission standards. In addition, the engine must meet one of the following requirements specified in paragraphs a and b.

a. If the permittee operates and maintains the certified SI ICE and control device according to the manufacturer's emission-related written instruction, the permittee must keep records of conducted maintenance to demonstrate compliance, but no performance testing is required. The SI ICE must also meet the requirements as specified in 40 CFR 1068, Subparts A through D, as they apply to the SI ICE. If the permittee adjusts engine settings according to and consistent with the manufacturer's instructions, the SI ICE will not be considered out of compliance.
b. If the permittee does not operate and maintain the certified SI ICE and control device according to the manufacturer's emission-related written instructions, the SI ICE will be considered a non-certified engine, and compliance must be demonstrated as follows: The permittee must keep a maintenance plan and records of conducted maintenance to demonstrate compliance and must, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions, but no performance testing is required.

[40 CFR 60.4243(a)(1) and (2)(i)]

Recordkeeping and Reporting Requirements

I.6. Recordkeeping Requirements. The permittee must keep records of the following information:
a. All notifications submitted to comply with this permit and all documentation supporting any notification;
b. Maintenance conducted on the engine;
c. If the stationary SI ICE is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required by 40 CFR 90, 1048, 1054, and 1060, as applicable; and
d. If the stationary SI ICE is not a certified engine or is a certified engine operating in a non-certified manner and subject to paragraph b of **Specific Condition I.5**, documentation that the engine meets the emission standards.

[40 CFR 60.4245(a)]

I.7. Other Reporting Requirements. See Appendix RR, Facility-Wide Reporting Requirements, for additional reporting requirements. [Rule 62-213.440(1)(b), F.A.C.]

General Provisions

I.8. 40 CFR 60, Subpart A – General Provisions. The permittee shall comply with the applicable requirements of 40 CFR 60 Subpart A, General Provisions, as specified below.

General Provisions Citation	Subject of Citation
§ 60.1	General applicability of the General Provisions
§ 60.2	Definitions (see also § 60.4248)
§ 60.3	Units and abbreviations
§ 60.4	Address
§ 60.5	Determination of construction or modification
§ 60.6	Review of plans
§ 60.9	Availability of information
§ 60.10	State Authority
§ 60.12	Circumvention
§ 60.14	Modification
§ 60.15	Reconstruction
§ 60.16	Priority list
§ 60.17	Incorporations by reference
§ 60.19	General notification and reporting requirements

[40 CFR 60.4246]

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Operated by: Duke Energy Florida, LLC
ORIS Code: 0628

The emissions units listed below are regulated under Acid Rain, Phase II.

EU No.	EPA ID#	Brief Description
003	5	FFSG, Unit 5
004	4	FFSG, Unit 4
042	1GTA	CCCS Unit 1A – Nominal 300 MW CTG with Duct-Fired HRSG*
043	1GTB	CCCS Unit 1B – Nominal 300 MW CTG with Duct-Fired HRSG*
051	2GTA	CCCS Unit 2A – Nominal 300 MW CTG with Duct-Fired HRSG*
052	2GTB	CCCS Unit 2B – Nominal 300 MW CTG with Duct-Fired HRSG*

A.1. The Phase II Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain units must comply with the standard requirements and special provisions set forth in the applications listed below:

a. DEP Form No. 62-210.900(1)(a), dated 04/26/2016, received 04/12/2019 (CCCS Units).
b. DEP Form No. 62-210.900(1)(a), dated 04/11/2019, received 04/12/2019 (FFSG Units).
c. DEP Form No. 62-210.900(1)(a)3, dated 05/20/2019, received 05/20/2019.
d. EPA Form 7610-20 (equivalent to DEP Form No. 62-210.900(1)(c), F.A.C.), dated 02/20/2019, received 02/27/2019.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Nitrogen oxide (NO_X) requirements for each Acid Rain Phase II unit are as follows:

EU No.	EPA ID	NO_X Limit
003	**5**	The Florida Department of Environmental Protection approves a NO_X compliance plan for this unit. The compliance plan is effective for 5 years after the final issuance of this permit (i.e., until the expiration date of this permit). This unit's applicable emission limitation for each year of the plan, is 0.46 lb/MMBtu from 40 CFR 76.7(a)(2) for dry bottom wall-fired boilers. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and the requirements covering excess emissions
004	**4**	The Florida Department of Environmental Protection approves a NO_X compliance plan for this unit. The compliance plan is effective for 5 years after the final issuance of this permit (i.e., until the expiration date of this permit). This unit's applicable emission limitation for each year of the plan, is 0.46 lb/MMBtu from 40 CFR 76.7(a)(2) for dry bottom wall-fired boilers. In addition to the described NO_X compliance plan, this unit shall comply with all other applicable requirements of 40 CFR Part 76, including the duty to reapply for a NO_X compliance plan and the requirements covering excess emissions.

A.3. Sulfur Dioxide (SO_2) Emission Allowances. SO_2 emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400, F.A.C.

b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
c. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]

A.4. Comments, Notes, and Justifications: None.

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Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: X New ☐ Revised ☐ Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Crystal River	FL	628
Plant name	State	ORIS/Plant Code

STEP 2
Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO_2 Opt-in unit, enter "yes" in column "b".

For new units or SO_2 Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO_2 Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO_2 Opt-in Units Commence Operation Date	New or SO_2 Opt-in Units Monitor Certification Deadline
1GTA	No	Yes	05/01/2018	10/28/2018 (180 days from operation)
1GTB	No	Yes	05/01/2018	10/28/2018 (180 days from operation)
2GTA	No	Yes	08/01/2018	01/28/2019 (180 days from operation)
2GTB	No	Yes	08/01/2018	01/28/2019 (180 days from operation)

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

1

Plant Name (from STEP 1)	Crystal River

STEP 3

Read the standard requirements.

Acid Rain Part Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(I) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(II) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(I) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
(II) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
(4) For applications including a SO_2 Opt-in unit, a monitoring plan for each SO_2 Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO_2 Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(I) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(II) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(I) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(II) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(I) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
(II) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
(I) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(II) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
(III) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from STEP 1)	Crystal River

STEP 3, Continued.

Recordkeeping and Reporting Requirements (cont)

(IV) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4
For SO_2 Opt-in units only.

In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

3

Crystal River
Plant Name (from STEP 1)

STEP 5

For SO_2 Opt-in units only. (Not required for SO_2 Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO_2 Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO_2 Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO_2 Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO_2 Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO_2 Opt-in units only.

Attach additional requirements, certify and sign.

A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
D. Attach a complete compliance plan for SO_2 under 40 CFR 72.40.
E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature	Date

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Jeffrey R. Swartz (Name)	Vice President Florida – Power Operations (Title)
Duke Energy Florida LLC (Owner Company Name)	
(352) 501-6602 (Phone)	Jeffrey.Swartz@duke-energy.com (E-mail address)
Signature [signature]	Date 4/26/2016

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/06

4

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30, 72.31, and 74; and Chapter 62-214, F.A.C.

This submission is: ☐ New ☐ Revised ☒ Renewal

STEP 1

Identify the source by plant name, state, and ORIS or plant code.

Crystal River	FL	628
Plant name	State	ORIS Plant Code

STEP 2
Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a."

If unit a SO_2 Opt-in unit, enter "yes" in column "b".

For new units or SO_2 Opt-in units, enter the requested information in columns "d" and "e."

a	b	c	d	e
Unit ID#	SO_2 Opt-in Unit? (Yes or No)	Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	New or SO_2 Opt-in Units Commence Operation Date	New or SO_2 Opt-in Units Monitor Certification Deadline
4	No	Yes	N/A	N/A
5	No	Yes	N/A	N/A
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		
		Yes		

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Effective: 3/16/08

1

STEP 3

Read the standard requirements.

Crystal River

Plant Name (from STEP 1)

Acid Rain Part Requirements.

(1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Submit a complete Acid Rain Part application (including a compliance plan) under 40 CFR Part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
(ii) Submit in a timely manner any supplemental information that the DEP determines is necessary in order to review an Acid Rain Part application and issue or deny an Acid Rain Part;
(2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
(i) Operate the unit in compliance with a complete Acid Rain Part application or a superseding Acid Rain Part issued by the DEP; and
(ii) Have an Acid Rain Part.

Monitoring Requirements.

(1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR Part 75, and Rule 62-214.420, F.A.C.
(2) The emissions measurements recorded and reported in accordance with 40 CFR Part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
(3) The requirements of 40 CFR Part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.
(4) For applications including a SO_2 Opt-in unit, a monitoring plan for each SO_2 Opt-in unit must be submitted with this application pursuant to 40 CFR 74.14(a). For renewal applications for SO_2 Opt-in units include an updated monitoring plan if applicable under 40 CFR 75.53(b).

Sulfur Dioxide Requirements.

(1) The owners and operators of each source and each Acid Rain unit at the source shall:
(i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
(i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
(ii) Starting on the later of January 1, 2000, or the deadline for monitor certification under 40 CFR Part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain Part application, the Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

(1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR Part 77.
(2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR Part 77; and
(ii) Comply with the terms of an approved offset plan, as required by 40 CFR Part 77.

Recordkeeping and Reporting Requirements.

(1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the DEP:
(i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
(ii) All emissions monitoring information, in accordance with 40 CFR Part 75, provided that to the extent that 40 CFR Part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,
(iv) Copies of all documents used to complete an Acid Rain Part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.

Plant Name (from STEP 1)

Crystal River

Recordkeeping and Reporting Requirements (cont)

(2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR Part 72, Subpart I, and 40 CFR Part 75.

Liability.

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
(5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
(6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR Part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
(7) Each violation of a provision of 40 CFR Parts 72, 73, 74, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities.

No provision of the Acid Rain Program, an Acid Rain Part application, an Acid Rain Part, or an exemption under 40 CFR 72.7or 72.8 shall be construed as:
(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
(2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
(3) Requiring a change of any kind in any state law regulating electric utility rates and charges, affecting any state law regarding such state regulation, or limiting such state regulation, including any prudence review requirements under such state law;
(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
(5) Interfering with or impairing any program for competitive bidding for power supply in a state in which such program is established.

STEP 4
For SO_2 Opt-in units only.

In column "f" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" of STEP 2.

For column "g" describe the combustion unit and attach information and diagrams on the combustion unit's configuration.

In column "h" enter the hours.

f	g	h (not required for renewal application)
Unit ID#	Description of the combustion unit	Number of hours unit operated in the six months preceding initial application

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

3

Plant Name (from STEP 1)
Crystal River

STEP 5

For SO_2 Opt-in units only. (Not required for SO_2 Opt-in renewal applications.)

In column "i" enter the unit ID# for every SO_2 Opt-in unit identified in column "a" (and in column "f").

For columns "j" through "n," enter the information required under 40 CFR 74.20-74.25 and attach all supporting documentation required by 40 CFR 74.20-74.25.

i	j	k	l	m	n
Unit ID#	Baseline or Alternative Baseline under 40 CFR 74.20 (mmBtu)	Actual SO_2 Emissions Rate under 40 CFR 74.22 (lbs/mmBtu)	Allowable 1985 SO_2 Emissions Rate under 40 CFR 74.23 (lbs/mmBtu)	Current Allowable SO_2 Emissions Rate under 40 CFR 74.24 (lbs/mmBtu)	Current Promulgated SO_2 Emissions Rate under 40 CFR 74.25 (lbs/mmBtu)

STEP 6

For SO_2 Opt-in units only.

Attach additional requirements, certify and sign.

A. If the combustion source seeks to qualify for a transfer of allowances from the replacement of thermal energy, a thermal energy plan as provided in 40 CFR 74.47 for combustion sources must be attached.
B. A statement whether the combustion unit was previously an affected unit under 40 CFR 74.
C. A statement that the combustion unit is not an affected unit under 40 CFR 72.6 and does not have an exemption under 40 CFR 72.7, 72.8, or 72.14.
D. Attach a complete compliance plan for SO_2 under 40 CFR 72.40.
E. The designated representative of the combustion unit shall submit a monitoring plan in accordance with 40 CFR 74.61. For renewal application, submit an updated monitoring plan if applicable under 40 CFR 75.53(b).
F. The following statement must be signed by the designated representative or alternate designated representative of the combustion source: "I certify that the data submitted under 40 CFR Part 74, Subpart C, reflects actual operations of the combustion source and has not been adjusted in any way."

Signature	Date

STEP 7

Read the certification statement; provide name, title, owner company name, phone, and e-mail address; sign, and date.

Certification (for designated representative or alternate designated representative only)

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	Title
Jeffrey Swartz	VP Florida Generation

Owner Company Name
Duke Energy Florida, Inc.

Phone	E-mail address:
(352) 501-6602	Jeffreyswartz@duke-energy.com

Signature	Date
JS	4/11/2019

DEP Form No. 62-210.900(1)(a) – Form
Effective: 3/16/08

4

Florida Department of Environmental Protection

Phase II NO_X Compliance Plan

For more information, see instructions and refer to 40 CFR 76.9

This submission is: New ☐ Revised ☒ Renewal ☐ Page 1 of 3

STEP 1 Indicate plant name, state, and ORIS code from NADB, if applicable.	Crystal River Plant Name	FL State	0628 ORIS Code
STEP 2	Identify each affected Group 1 and Group 2 boiler using the boiler ID# from NADB, if applicable. Indicate boiler type: "CB" for cell burner, "CY" for cyclone, "DBW" for dry bottom wall-fired, "T" for tangentially fired, "V" for vertically fired, and "WB" for wet bottom. Indicate the compliance option selected for each unit.		

	ID# 4 Type DBW	ID# 5 Type DBW	ID# Type	ID# Type	ID# Type	ID# Type
(a) Standard annual average emission limitation of 0.50 lb/mmBtu (for Phase I dry bottom wall-fired boilers)	☐	☐	☐	☐	☐	☐
(b) Standard annual average emission limitation of 0.45 lb/mmBtu (for Phase I tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(c) EPA-approved early election plan under 40 CFR 76.8 through 12/31/07 (also indicate above emission limit specified in plan)	☐	☐	☐	☐	☐	☐
(d) Standard annual average emission limitation of 0.46 lb/mmBtu (for Phase II dry bottom wall-fired boilers)	☒	☒	☐	☐	☐	☐
(e) Standard annual average emission limitation of 0.40 lb/mmBtu (for Phase II tangentially fired boilers)	☐	☐	☐	☐	☐	☐
(f) Standard annual average emission limitation of 0.68 lb/mmBtu (for cell burner boilers)	☐	☐	☐	☐	☐	☐
(g) Standard annual average emission limitation of 0.86 lb/mmBtu (for cyclone boilers)	☐	☐	☐	☐	☐	☐
(h) Standard annual average emission limitation of 0.80 lb/mmBtu (for vertically fired boilers)	☐	☐	☐	☐	☐	☐
(i) Standard annual average emission limitation of 0.84 lb/mmBtu (for wet bottom boilers)	☐	☐	☐	☐	☐	☐
(j) NO_x Averaging Plan (include NO_x Averaging form)	☐	☐	☐	☐	☐	☐
(k) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(A) (check the standard emission limitation box above for most stringent limitation applicable to any unit utilizing stack)	☐	☐	☐	☐	☐	☐

Plant Name (from Step 1)	Crystal River

STEP 2, cont'd.

	ID# 4 Type DBW	ID# 5 Type DBW	ID# Type	ID# Type	ID# Type	ID# Type
(l) Common stack pursuant to 40 CFR 75.17(a)(2)(i)(B) with NO_x Averaging (check the NO_x Averaging Plan box and include NO_x Averaging Form)	☐	☐	☐	☐	☐	☐
(m) EPA-approved common stack apportionment method pursuant to 40 CFR 75.17 (a)(2)(i)(C), (a)(2)(iii)(B), or (b)(2)	☐	☐	☐	☐	☐	☐
(n) AEL (include Phase II AEL Demonstration Period, Final AEL Petition, or AEL Renewal form as appropriate)	☐	☐	☐	☐	☐	☐
(o) Petition for AEL demonstration period or final AEL under review by U.S. EPA or demonstration period ongoing	☐	☐	☐	☐	☐	☐
(p) Repowering extension plan approved or under review	☐	☐	☐	☐	☐	☐

STEP 3
Read the standard requirements and certification, enter the name of the designated representative, sign and date.

Standard Requirements

General. This source is subject to the standard requirements in 40 CFR 72.9 (consistent with 40 CFR 76.8(e)(1)(i)). These requirements are listed in this source's Acid Rain Part of its Title V permit.

Special Provisions for Early Election Units

Nitrogen Oxides. A unit that is governed by an approved early election plan shall be subject to an emissions limitation for NO_x as provided under 40 CFR 76.8(a)(2) except as provided under 40 CFR 76.8(e)(3)(iii).

Liability. The owners and operators of a unit governed by an approved early election plan shall be liable for any violation of the plan or 40 CFR 76.8 at that unit. The owners and operators shall be liable, beginning January 1, 2000, for fulfilling the obligations specified in 40 CFR Part 77.

Termination. An approved early election plan shall be in effect only until the earlier of January 1, 2008 or January 1 of the calendar year for which a termination of the plan takes effect. If the designated representative of the unit under an approved early election plan fails to demonstrate compliance with the applicable emissions limitation under 40 CFR 76.5 for any year during the period beginning January 1 of the first year the early election takes effect and ending December 31, 2007, the permitting authority will terminate the plan. The termination will take effect beginning January 1 of the year after the year for which there is a failure to demonstrate compliance, and the designated representative may not submit a new early election plan. The designated representative of the unit under an approved early election plan may terminate the plan any year prior to 2008 but may not submit a new early election plan. In order to terminate the plan, the designated representative must submit a notice under 40 CFR 72.40(d) by January 1 of the year for which the termination is to take effect. If an early election plan is terminated any year prior to 2000, the unit shall meet, beginning January 1, 2000, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7. If an early election plan is terminated on or after 2000, the unit shall meet, beginning on the effective date of the termination, the applicable emissions limitation for NO_x for Phase II units with Group 1 boilers under 40 CFR 76.7.

Certification

I am authorized to make this submission on behalf of the owners and operators of the affected source or affected units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

STEP 3, cont'd.

Name **Jeffrey Swartz**	
Signature	Date 5/20/2019

Contact Information

Email Address: **Jeffrey.Swartz@Duke-Energy.com**
Phone: **(352) 501-6602**

United States Environmental Protection Agency
Acid Rain and CSAPR Trading Programs

OMB Nos. 2060-0258 and 2060-0667
Approval Expires 11/30/2018

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 97.405, 97.505, 97.605, 97.705 and 97.805, or a comparable state regulation, as applicable.

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit by plant (source) name, State, plant code and unit ID#.

Plant (Source) Name	State	Plant Code	Unit ID#
DUKE ENERGY FLORIDA, LLC CRYSTAL RIVER PLANT	FL	628	1

STEP 2
Indicate the program(s) that the unit is subject to.

☒ Acid Rain Program
☐ CSAPR NO_x Annual Trading Program
☐ CSAPR NO_x Ozone Season Trading Program
☐ CSAPR SO_2 Annual Trading Program

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

DECEMBER 31, 2018

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2019

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

(1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
(2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
(5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Revised 12-2016)

CSAPR NO_x Annual Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.405 shall comply with the requirements of the CSAPR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart AAAAA, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart BBBBB, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.605 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart EEEEE, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.605 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the CSAPR SO_2 Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart CCCCC, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.705 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.705 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.705 shall comply with the requirements of the CSAPR SO_2 Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.705 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart DDDDD, as a unit that commences commercial operation on the first date on which the unit resumes operation.

STEP 6
Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance
I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

Certification (for designated representatives or alternate designated representatives only)
I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Jeffrey Swartz	Title VP Florida Generation
Owner Company Name Duke Energy Florida, LLC	
Phone 352.501.6602	Email Jeffrey.Swartz@duke-energy.com
Signature JR Swartz	Date 2/20/19

Certification (for certifying officials of units subject to the Acid Rain Program only)
I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine orimprisonment.

Name	Title
Owner Company Name	
Phone	Email
Signature	Date

EPA Form 7610-20 (Revised 12-2016)

United States Environmental Protection Agency
Acid Rain and CSAPR Trading Programs

OMB Nos. 2060-0258 and 2060-0667
Approval Expires 11/30/2018

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 97.405, 97.505, 97.605, 97.705 and 97.805, or a comparable state regulation, as applicable.

This submission is: [X] New [ ] Revised

STEP 1
Identify the unit by plant (source) name, State, plant code and unit ID#

Plant (Source) Name	State	Plant Code	Unit ID#
DUKE ENERGY FLORIDA, LLC CRYSTAL RIVER PLANT	FL	628	2

STEP 2
Indicate the program(s) that the unit is subject to

- [X] Acid Rain Program
- [ ] CSAPR NO_x Annual Trading Program
- [ ] CSAPR NO_x Ozone Season Trading Program
- [ ] CSAPR SO_2 Annual Trading Program

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

DECEMBER 31, 2018

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2019

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

(1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
(2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
(5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanentlyretired.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Revised 12-2016)

CSAPR NO_x Annual Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.405 shall comply with the requirements of the CSAPR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart AAAAA, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart BBBBB, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.805 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.805 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.805 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.805 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart EEEEE, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.605 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the CSAPR SO_2 Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart CCCCC, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.705 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.705 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.705 shall comply with the requirements of the CSAPR SO_2 Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.705 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart DDDDD, as a unit that commences commercial operation on the first date on which the unit resumes operation.

Retired Unit Exemption
Page 4 of 4

STEP 6
Read the statement of compliance and the appropriate certification statements and sign and date

Statement of Compliance
I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5

Certification (for designated representatives or alternate designated representatives only)
I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Jeffrey Swartz	Title VP Florida Generation
Owner Company Name Duke Energy Florida, LLC	
Phone 352.501.6602	Email Jeffrey.Swartz@duke-energy.com
Signature [signature]	Date 2/20/19

Certification (for certifying officials of units subject to the Acid Rain Program only)
I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine orimprisonment.

Name	Title
Owner Company Name	
Phone	Email
Signature	Date

EPA Form 7610-20 (Revised 12-2016)

Table of Contents.

Appendix D – EPA Form 7610-20 – Retired Unit Exemption for Crystal River Units 1 and 2

United States Environmental Protection Agency
Acid Rain and CSAPR Trading Programs

OMB Nos. 2060-0258 and 2060-0667
Approval Expires 11/30/2018

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 97.405, 97.505, 97.605, 97.705 and 97.805, or a comparable state regulation, as applicable.

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit by plant (source) name, State, plant code and unit ID#

Plant (Source) Name	State	Plant Code	Unit ID#
DUKE ENERGY FLORIDA, LLC CRYSTAL RIVER PLANT	FL	628	1

STEP 2
Indicate the program(s) that the unit is subject to

☒ Acid Rain Program
☐ CSAPR NO_x Annual Trading Program
☐ CSAPR NO_x Ozone Season Trading Program
☐ CSAPR SO_2 Annual Trading Program

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

DECEMBER 31, 2018

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2019

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

(1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
(2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72.31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) For any period for which a unit is exempt under 40 CFR 72.8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
(5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 72.8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2); or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

EPA Form 7610-20 (Revised 12-2016)

CSAPR NO_x Annual Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.405 shall comply with the requirements of the CSAPR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart AAAAA, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart BBBBB, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.605 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart EEEEE, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.605 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the CSAPR SO_2 Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart CCCCC, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.705 shall not emit any SO_2, starting on the date that the exemption takes effect.
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STEP 6
Read the statement of compliance and the appropriate certification statements and sign and date.

Statement of Compliance
I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5.

Certification (for designated representatives or alternate designated representatives only)
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Name Jeffrey Swartz	Title VP Florida Generation
Owner Company Name Duke Energy Florida, LLC	
Phone 352.501.6602	Email Jeffrey.Swartz@duke-energy.com
Signature [signature]	Date 2/20/19

Certification (for certifying officials of units subject to the Acid Rain Program only)
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Name	Title
Owner Company Name	
Phone	Email
Signature	Date

EPA Form 7610-20 (Revised 12-2016)

United States Environmental Protection Agency
Acid Rain and CSAPR Trading Programs

OMB Nos. 2060-0258 and 2060-0667
Approval Expires 11/30/2018

Retired Unit Exemption

For more information, see instructions and refer to 40 CFR 72.8, 97.405, 97.505, 97.605, 97.705 and 97.805, or a comparable state regulation, as applicable.

This submission is: ☒ New ☐ Revised

STEP 1
Identify the unit by plant (source) name, State, plant code and unit ID#

Plant (Source) Name	State	Plant Code	Unit ID#
DUKE ENERGY FLORIDA, LLC CRYSTAL RIVER PLANT	FL	628	2

STEP 2
Indicate the program(s) that the unit is subject to

☒ Acid Rain Program
☐ CSAPR NO_x Annual Trading Program
☐ CSAPR NO_x Ozone Season Trading Program
☐ CSAPR SO_2 Annual Trading Program

STEP 3
Identify the date on which the unit was (or will be) permanently retired.

DECEMBER 31, 2018

STEP 4
If the unit is subject to the Acid Rain Program, identify the first full calendar year in which the unit meets (or will meet) the requirements of 40 CFR 72.8(d).

January 1, 2019

STEP 5
Read the appropriate special provisions.

Acid Rain Program Special Provisions

(1) A unit exempt under 40 CFR 72.8 shall not emit any sulfur dioxide and nitrogen oxides starting on the date that the exemption takes effect. The owners and operators of the unit will be allocated allowances in accordance with 40 CFR part 73 subpart B.
(2) A unit exempt under 40 CFR 72.8 shall not resume operation unless the designated representative of the source that includes the unit submits a complete Acid Rain permit application under 40 CFR 72 31 for the unit not less than 24 months prior to the date on which the unit is first to resume operation.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 72.8 shall comply with the requirements of the Acid Rain Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) For any period for which a unit is exempt under 40 CFR 72 8, the unit is not an affected unit under the Acid Rain Program and 40 CFR part 70 and 71 and is not eligible to be an opt-in source under 40 CFR part 74. As an unaffected unit, the unit shall continue to be subject to any other applicable requirements under 40 CFR parts 70 and 71.
(5) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 72.8 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time prior to the end of the period, in writing by the Administrator or the permitting authority. The owners and operators bear the burden of proof that the unit is permanently retired.
(6) On the earlier of the following dates, a unit exempt under 40 CFR 72 8(b) or (c) shall lose its exemption and become an affected unit under the Acid Rain Program and 40 CFR part 70 and 71: (i) the date on which the designated representative submits an Acid Rain permit application under paragraph (2), or (ii) the date on which the designated representative is required under paragraph (2) to submit an Acid Rain permit application. For the purpose of applying monitoring requirements under 40 CFR part 75, a unit that loses its exemption under 40 CFR 72.8 shall be treated as a new unit that commenced commercial operation on the first date on which the unit resumes operation.

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CSAPR NO_x Annual Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.405 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.405 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.405 shall comply with the requirements of the CSAPR NO_x Annual Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.405 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart AAAAA, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.505 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.505 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.505 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.505 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart BBBBB, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR NO_x Ozone Season Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.805 shall not emit any NO_x, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.805 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.805 shall comply with the requirements of the CSAPR NO_x Ozone Season Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.805 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart EEEEE, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 1 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.605 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.605 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.605 shall comply with the requirements of the CSAPR SO_2 Group 1 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.605 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart CCCCC, as a unit that commences commercial operation on the first date on which the unit resumes operation.

CSAPR SO_2 Group 2 Trading Program Special Provisions

(1) A unit exempt under 40 CFR 97.705 shall not emit any SO_2, starting on the date that the exemption takes effect.
(2) For a period of 5 years from the date the records are created, the owners and operators of a unit exempt under 40 CFR 97.705 shall retain, at the source that includes the unit, records demonstrating that the unit is permanently retired. The 5-year period for keeping records may be extended for cause, at any time before the end of the period, in writing by the Administrator. The owners and operators bear the burden of proof that the unit is permanently retired.
(3) The owners and operators and, to the extent applicable, the designated representative of a unit exempt under 40 CFR 97.705 shall comply with the requirements of the CSAPR SO_2 Group 2 Trading Program concerning all periods for which the exemption is not in effect, even if such requirements arise, or must be complied with, after the exemption takes effect.
(4) A unit exempt under 40 CFR 97.705 shall lose its exemption on the first date on which the unit resumes operation. Such unit shall be treated, for purposes of applying allocation, monitoring, reporting, and recordkeeping requirements under 40 CFR part 97 subpart DDDDD, as a unit that commences commercial operation on the first date on which the unit resumes operation.

STEP 6
Read the statement of compliance and the appropriate certification statements and sign and date

Statement of Compliance
I certify that the unit identified above at STEP 1 was (or will be) permanently retired on the date identified at STEP 3 and will comply with the appropriate Special Provisions listed at STEP 5

Certification (for designated representatives or alternate designated representatives only)
I am authorized to make this submission on behalf of the owners and operators of the source and unit for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name Jeffrey Swartz	Title VP Florida Generation
Owner Company Name Duke Energy Florida, LLC	
Phone 352.501.6602	Email Jeffrey.Swartz@duke-energy.com
Signature JR Swartz	Date 2/20/19

Certification (for certifying officials of units subject to the Acid Rain Program only)
I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine orimprisonment.

Name	Title
Owner Company Name	
Phone	Email
Signature	Date

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