



Company Name:	Dominion Energy South Carolina Inc Canadys Station	Permit Writer:	James M Myers
Agency Air Number:	0740-0002	Date:	DRAFT
Permit Number:	PSD-50000027 v1.0		

DATE APPLICATION RECEIVED: April 24, 2026

DATE OF CZC APPROVAL:

PROJECT DESCRIPTION

This project is for the construction of three (3) independent, advanced-class, multi-shaft, one-on-one (1x1) combined cycle combustion turbine (CCCT) power trains. Each power train will include a combustion turbine-generator (CTG), a heat recovery steam generator (HRSG) equipped with supplementary firing (duct burners), and a steam turbine-generator (STG), configured to operate in a combined cycle arrangement. Each CCCT will be equipped with selective catalytic reduction (SCR) for the control of nitrogen oxides (NO_x) and an oxidative catalyst (OXCAT) for the control of carbon monoxide (CO), volatile organic compounds (VOC), and organic hazardous air pollutants (HAPs). Water injection will also be available for control of NO_x when using fuel oil in the combustion turbines.

Ancillary equipment will include: one (1) natural gas-fired auxiliary boiler, three (3) diesel-fired emergency generators, two (2) diesel-fired emergency fire water pumps, four (4) natural gas-fired fuel gas heaters, sixty six (66) sulfur hexafluoride (SF₆) high-voltage circuit breakers, two (2) three-million gallon aboveground storage tanks (ASTs) for fuel oil, three (3) 4000-gallon diesel belly tanks, two (2) 300-gallon diesel belly tanks, two (2) 40,000-gallon ASTs storing less than 20% aqueous ammonia to support the SCR system, six (6) inlet chiller towers, three (3) delugable air-cooled heat exchangers, and fugitive emission components (valves, flanges, etc.).

FACILITY DESCRIPTION

SIC CODE: 4911 - Electric Services

NAICS CODE: 221112 - Fossil Fuel Electric Power Generation

This facility will be an electric utility consisting of three combined cycle combustion turbines and support equipment.

OPERATING PERMIT INCORPORATION

The facility shall submit a Title V application within 12 months of startup.

EMISSIONS

Combustion turbine emissions are determined by the following equation:

CCCTs Emissions for fuel oil (pound/hour) = Fuel usage (gal/hour) X Fuel Heating value (Million (MM) BTU/Gallon) X Pollutant Emission Factor X (lb/Million BTU)

CCCTs Emissions for natural gas - (pound/hour) = Fuel usage (SCF/hour) X Fuel Heating value (Million (MM) BTU/SCF) X Pollutant Emission Factor X (lb/Million BTU)

Although the combustion turbines can use fuel oil, the worst case emissions are based on using natural gas since they include the duct burners. The duct burners are not able to use fuel oil. The duct burners will only run when natural gas is used in the combustion turbine.



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PROJECT EMISSIONS				
Pollutant	Controlled		PTE	
	lb/hr	TPY	lb/hr	TPY
Particulate Matter (PM) (Filterable)	282	1230	141	617
Particulate Matter <10 Microns (PM ₁₀)	282	1230	141	615
Particulate Matter <2.5 Microns (PM _{2.5})	282	1230	140	613
Sulfur Dioxide (SO ₂)	21.2	119	21.2	119
Nitrogen Oxides (NO _x)	413*	1810	167	731
Carbon Monoxide (CO)	177*	2,780	634	2,780
Volatile Organic Compounds (VOC)	49.6*	972	222	972
Lead (Pb)	0.018	0.08	0.018	0.08
Formaldehyde (Highest Single HAP)	8.28	36.3	6.01	26.3
Total Hazardous Air Pollutants (Total HAP)	14.2	62.1	11.8	51.7
Sulfuric Acid (H ₂ SO ₄)	45.0	197	45.0	197
Greenhouse Gas (CO ₂ e)	1,801,000	7,890,000	1,801,000	7,890,000

*Startup and shutdown lb/hr emissions were not used.

SOURCE TEST REQUIREMENTS

An initial source test for each combustion turbine for PM, PM₁₀, and PM_{2.5}, will be required to demonstrate compliance with the BACT limits while burning natural gas and fuel oil.

An initial source test for each combustion turbine for VOC will be required to demonstrate compliance with the BACT limits while burning natural gas and fuel oil.

An initial and annual source tests for each combustion turbine for formaldehyde is required by 40 CFR 63 Subpart YYYY.

An initial source test for each combustion turbine for NO_x is required by 40 CFR 60 Subpart KKKKa.

For SO₂, applicant will submit fuel records (such as a current, valid purchase contract, tariff sheet, transportation contract, or results of a fuel analysis) to satisfy the requirements of § 60.8 and 40 CFR 60 Subpart KKKKa.

REGULATIONS

Not Applicable - Section II(E) (Synthetic Minor)

The facility is not requesting any synthetic minor limits for this project.

Applicable - Standard No. 1 (Emissions from Fuel Burning Operations)



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ID	PM Allowable (lb/hr)	SO ₂ Allowable (lb/hr)	Opacity %	Uncontrolled Emissions		Controlled Emissions	
				PM (lb/hr)	SO ₂ (lb/hr)	PM (lb/hr)	SO ₂ (lb/hr)
AB1	60	230	20	0.74	0.059	---	---
DB1	500	2000	20	5.1	1.7	---	---
DB2	500	2000	20	5.1	1.7	---	---
DB3	500	2000	20	5.1	1.7	---	---
HT1	10	46	20	0.15	0.012	---	---
HT2	10	46	20	0.15	0.012	---	---
HT3	10	46	20	0.15	0.012	---	---
HT4	2	6.9	20	0.022	0.0018	---	---

Each source is only permitted to burn natural gas. Because the uncontrolled emissions will be less than the limits, no monitoring will be required for PM or opacity.

The emergency engines are not subject to this standard since they are direct fired.

Not Applicable - Standard No. 3 (state only) (Waste Combustion and Reduction)

The fuel burning sources from this project will only burn virgin fuel; therefore, this standard does not apply.

Applicable - Standard No. 4 (Emissions from Process Industries)

Process	Max Process Weight Rate (tons/hr)	PM Allowable at Max (lb/hr)	Uncontrolled Emissions PM (lb/hr)	Controlled Emissions PM (lb/hr)	Monitoring
COOL1 – COOL6	6000 (each)	103 (each)	9.01E-02 (each)	No Control	Semiannual Visual Inspection *
DELUGE1 – DELUGE3	6260 (each)	104 (each)	0.376 (each)	No control	Semiannual Visual Inspection *

*Monitoring not required for PM since the uncontrolled emissions are less than the limit.

CT1, CT2, CT3, EG01, EG02, EG03, FP01, FP02, FUGNG, EGBT01, EGBT02, EGBT03, FPBT01, FPBT02, AST1, AST2, FUGSF6 – These sources have no process PM emissions and are only subject to the 20% opacity limit. Semiannual visual inspections will be performed.

Not Applicable - Standard No. 5 (Volatile Organic Compounds)



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This plant will not be an existing process defined in Section I of this Standard. Therefore, the plant will not be subject to this regulation.

Not Applicable - Standard No. 5.2 (Control of Oxides of Nitrogen (NO_x))

Each source has undergone a BACT review for NO_x. In accordance with Section I(B)(4), any source that has undergone a BACT analysis for NO_x is exempt from this Standard.

Applicable - Standard No. 7 (Prevention of Significant Deterioration)

Applicable: The facility will be a fossil fuel-fired steam electric plant with a heat input greater than 250 MMBtu/hr, one of the listed source categories, and has the potential to emit more than 100 tons/yr of various regulated NSR pollutants. As such, the facility is a major stationary source under the PSD program. The following is the PSD applicability for this project:

PSD Applicability Analysis					
Pollutant	Project PTE (tons/yr)	Baseline Actual Emissions (tons/yr)	Net Change (tons/yr)	Significant Emission Rate (tons/yr)	Major Modification?
PM	617	0	617	25	Yes
PM ₁₀	615	0	615	15	Yes
PM _{2.5}	613	0	613	10	Yes
SO ₂	119	0	119	40	Yes
NO _x	731	0	731	40	Yes
CO	2780	0	2780	100	Yes
VOC	972	0	972	40	Yes
H ₂ SO ₄	197	0	197	7	Yes
GHG (CO _{2e})	7,890,000	0	7,890,000	75,000	Yes
Lead	0.08	0	0.08	0.6	No
Fluorides	-	0	-	3	No

PSD Limits					
Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit	Explanation
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	PM filterable, PM ₁₀ and PM _{2.5}	0.009 lb/Million Btu based on a 3-hour average when burning natural gas	An initial source test will be used to demonstrate compliance with the limit. Natural gas and fuel oil sulfur content will be limited along with inlet air filter inspections for ongoing compliance.



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PSD Limits					
Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit	Explanation
				0.027 lb/Million Btu based on a 3-hour average when burning fuel oil.	
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	PM filterable, PM ₁₀ , PM _{2.5} , SO ₂ , and Sulfuric Acid Mist	Natural gas sulfur limit ≤ 0.5 gr/100 scf on a 12-month rolling average basis	Period fuel monitoring and/or fuel supplier certifications
PSD-50000027 v1.0	AB1	This Permit	PM filterable, PM ₁₀ , PM _{2.5} , SO ₂	No limit Proposed	Limited to 10% capacity factor and 2,000 hours of operation after commissioning of the CCCTs. Natural gas with a sulfur content ≤0.5 gr/scf
PSD-50000027 v1.0	EG1, EG2, EG3, FP1, FP2	This Permit	PM filterable, PM ₁₀ , PM _{2.5} , SO ₂	No limit Proposed	Only ultra-low sulfur diesel fuel allowed.
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	CO and VOC	CO = 3.5 ppmvd at 15% O ₂ based on a 4-hour rolling average when burning natural gas and ≤ 5 ppmvd at 15% O ₂ based on a 4-hour rolling average when burning fuel oil VOC = ≤ 2 ppmvd at 15% O ₂ based on a 4-hour rolling average when	An initial source test for VOC emissions. CO CEMs will be used to determine compliance with the CO limit and also ensure the CatOX system is working for ongoing compliance for VOCs. Inlet CatOx temperature monitoring will also be performed to ensure the catalyst is at the appropriate temperature.



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Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit	Explanation
				burning natural gas and ≤ 2 ppmvd at 15% O ₂ based on a 4-hour rolling average when burning fuel oil	
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	CO	$\leq 2,745.41$ tons per rolling 12-month pe to $< 2,928.50$ hours per rolling 12-month period pooled across all three CCCT trains	BACT for SU/SD events will limit emissions by limiting the hours of the events
PSD-50000027 v1.0	EGBT1, EGBT2, EGBT3, FPBT1, FPBT2, AST1, AST2	This Permit	VOC	No limit Proposed	Submerged Filling, Annual inspections
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	NO _x	≤ 2 ppmvd at 15% O ₂ based on a 24-hour rolling average when burning natural gas and ≤ 5 ppmvd at 15% O ₂ based on a 24-hour rolling average when burning fuel oil.	NO _x CEMs will be used to demonstrate compliance with the limit.



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PSD Limits					
Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit	Explanation
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	NO _x	≤ 96 ppmvd at 15% O ₂ based on a 24-hour rolling average during startup and shutdowns	Annual hours of Startup/shutdown events are limited along with CEMs monitoring.
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	NO _x and CO ₂ e	---	Fuel oil limited to 720 hours annually based on a 12 month rolling sum.
PSD-50000027 v1.0	CT1, CT2, CT3, DB1, DB2, DB3	This Permit	CO ₂	≤ 2,610,340 tons per rolling 12-month period (each)	Heat input records will be used to determine CO ₂ emissions.
PSD-50000027 v1.0	FUGSF6	This Permit	CO ₂ e	---	Low pressure alarms will be used to indicate leaks in the circuit breakers.

Applicable - 61-62.6 (Control of Fugitive Particulate Matter)

This regulation generally applies to all facilities. This facility requires no specific conditions to reduce fugitive emissions of particulate matter.

40 CFR 60 and 61-62.60 (New Source Performance Standards (NSPS))

Not Applicable – Subpart D (Fossil Fuel Fired Generators for Which Construction is Commenced After August 17, 1971)

This Subpart D applies to fossil-fuel-fire steam generating units constructed after August 17, 1971 and with a heat input rating in excess of 250 MMBtu/hr. This rule does not apply to turbines subject to 40 CFR Part 60, Subparts KKKK or KKKKa (NSPS KKKK or NSPS KKKKa). The new combustion turbines are subject to NSPS KKKKa. Therefore, these emission units are not subject to NSPS Subpart D.

Although the new auxiliary boiler will be considered a fossil fuel-fired steam generating unit, it will not have a heat input rating of more than 250 MMBtu/hr. Thus, the auxiliary boiler is not subject to this NSPS regulation. The fuel heaters are not considered steam generating units.

Not Applicable – Subpart Da (Electric-Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978)

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This Subpart does not apply to any of the sources for the same reason they do not apply to Subpart D (see above).

Not Applicable – Subpart Db (Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units)

The provisions of 40 CFR Part 60, Subpart Db (NSPS Db) apply to steam generating units that have a heat input greater than 100 MMBtu/hr for which construction, modification, or reconstruction commenced after 19 June 1984. The new auxiliary boiler does not have a heat input exceeding 100 MMBtu/hr. Therefore, the auxiliary boiler is not subject to NSPS Db.

Applicable – Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units)

This Subpart applies to steam generating units that have a heat input from 10 to 100 MMBtu/hr for which construction, modification, or reconstruction commenced after 09 June 1989. This project includes one natural gas-fired auxiliary boiler with a nominal maximum heat input capacity of 99.8 MMBtu/hr and three (3) natural gas-fired fuel gas heaters, each with a nominal maximum heat input capacity of 20 MMBtu/hr. The auxiliary boiler and larger fuel gas heaters will be subject to the applicable requirements of NSPS Dc. The small fuel gas heater will not be subject to NSPS Dc because it will have a heat input of less than 10 MMBtu/hr. The fuel gas heaters meet the definition of an applicable source because they use a heat transfer medium to provide indirect heating. NSPS Dc establishes emission standards for SO₂, PM, and opacity. Because the affected equipment will combust only natural gas, they will qualify for the regulatory provisions applicable to units firing gaseous fuels pursuant to 40 CFR §60.42c and §60.43c.

Specifically, for natural gas-fired units:

- The SO₂ emission standard is inherently met because natural gas contains negligible sulfur content.
- The PM emission limit and opacity standard are met by combustion of natural gas and proper operation of the boiler.
- Units combusting only natural gas are not subject to opacity monitoring requirements under 40 CFR §60.43c(e).

As natural gas-fired units, the auxiliary boiler and fuel gas heaters will be subject primarily to the notification and reporting requirements of NSPS Dc, including:

- Notification of construction/reconstruction (40 CFR §60.7(a)(1)).
- Notification of anticipated startup (40 CFR §60.7(a)(2)).
- Notification of actual startup (40 CFR §60.7(a)(3)).
- Excess emissions reporting, if applicable (40 CFR §60.48c).

In addition, the Facility will maintain the appropriate records documenting that the units fire only natural gas in accordance with 40 CFR §60.48c(g).

Not Applicable – Subpart K, Ka, Kb, and Kc (Standards of Performance for Volatile Organic Liquid Storage Vessels)

These Subparts apply to volatile organic liquids (VOL) storage vessels of certain sizes that have been constructed, reconstructed, or modified during various time periods. NSPS K applies to storage vessels for



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which construction, reconstruction, or modification commenced after 11 June 1973, but prior to 19 May 1978. NSPS Ka applies to storage vessels for which construction, reconstruction, or modification commenced after 18 May 1978, but prior to 23 July 1984. NSPS Kb applies to storage vessels for which construction, reconstruction, or modification commenced after 23 July 1984, but prior to 04 October 2023. All storage vessels at the Facility will be constructed after calendar year 2023; therefore, NSPS K, Ka, and Kb do not apply.

NSPS Kc applies to storage vessels for which construction, reconstruction, or modification commenced after 04 October 2023, with a capacity greater than or equal to 20,000 gallons (75.7 cubic meters) that store VOLs with a maximum true vapor pressure of at least 0.25 pounds per square inch absolute (psia). The Facility will install two (2) fuel oil storage tanks, each with a capacity of 3 million gallons. All other tanks will have capacities below the 20,000-gallon threshold. Fuel oil vapor pressure is typically around 0.005 psia which is significantly below the applicability threshold of 0.25 psia. As such, NSPS Kc does not apply.

Not Applicable – Subpart GG (Standards of Performance for Stationary Gas Turbines)

This Subpart applies to stationary gas turbines with a heat input at peak load equal to or greater than 10.7 gigajoules (10 million Btu) per hour, based on the lower heating value of the fuel fired and constructed, modified, or reconstructed after October 3, 1977. The combustion turbines will be subject to 40 CFR KKKKa. In accordance with § 60.330(d), units subject to KKKKa are not subject to this Subpart.

Applicable – Subpart IIII (Standards of Performance for Stationary Compression Ignition Internal Combustion Engines)

The proposed emergency generator engines and the emergency fire pump engines are all diesel-fired, will be constructed after 11 July 2005 and manufactured after 01 April 2006. Each of the units will have an engine displacement of less than 10 liters per cylinder (L/cylinder).

Emissions standards are applicable to each new emergency compression ignition (CI) internal combustion engine (ICE) under NSPS IIII, as follows. Pursuant to 40 CFR §60.4205(b), owners and operators of a new emergency CI ICE with a displacement of less than 30 L/cylinder and that is not a fire pump engine must comply with the emission standards applicable to manufacturers of new nonroad CI engines contained in 40 CFR §60.4202. Because the proposed emergency generators will have displacements below 10 L/cylinder and will be greater than 2,237 kW, they must be certified by the manufacturer according to the tier requirements of 40 CFR §60.4202(b)(2). Under 40 CFR §60.4205(c), fire pump engines with displacement of less than 30 liters per cylinder must comply with the emission standards in Table 4 to NSPS IIII, according to model year and NFPA nameplate engine power. Applicant will purchase CI ICEs, both emergency generators and emergency fire pumps, that are certified to meet the applicable emissions standards.

The facility will operate and maintain the certified engines in accordance with the manufacturer's written emission-related instructions as required by 40 CFR §60.4211(a). Operation of the emergency CI ICEs will be limited pursuant to 40 CFR §60.4211(f) to less than 100 hours per calendar year for non-emergency purposes, including maintenance checks and readiness testing, demand response periods, and periods of voltage or frequency deviation. The emergency CI ICEs will be equipped with a non-resettable hour meter as required by 40 CFR §60.4209(a) to demonstrate compliance with the operational limit for emergency CI ICE.

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Per 40 CFR §60.4207(b), the new CI ICEs will be required to use diesel fuel that meets the requirements of §1090.305. Specifically, the diesel fuel must: (i) have a maximum sulfur content not exceeding 15 ppm; and (ii) have a minimum cetane index of 40 or a maximum aromatic content of 35% (by volume). Applicant will only purchase and use diesel fuel that meets these requirements.

Not Applicable – Subpart KKKK (Standards of Performance for Stationary Combustion Turbines)

The combustion turbines will be subject to NSPS KKKKa. In accordance with § 60.4305(c), combustion turbines subject to subpart KKKKa of this part are not subject to this subpart.

Applicable – Subpart KKKKa (Standards of Performance for Stationary Combustion Turbines)

NSPS KKKKa applies NO_x and SO₂ standards to all stationary combustion turbines with a base load rating greater than 10 MMBtu/hr heat input. Affected sources under NSPS KKKKa must operate and maintain their stationary combustion turbines 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. The following emission requirements will apply to the new combustion turbines.

Pollutant/Fuel Type	Emission Limit
NO _x – Natural Gas <i>Applies to new turbines with heat input >850 MMBtu/h, firing natural gas at utilization rate >45 percent</i>	Input Based Standard: 5 ppm NO _x at 15 percent O ₂ (0.018 lb/MMBtu) or Optional Output Based Standard: 0.12 lb/MWh-gross of NO _x ; 0.12 lb/MWh-net of NO _x
NO _x – Fuel Oil <i>Applies to new turbines with heat input >850 MMBtu/h, firing non-natural gas</i>	Input Based Standard: 42 ppm NO _x at 15 percent O ₂ (0.16 lb/MMBtu) Optional Output Based Standard: 1.0 lb/MWh-gross of NO _x ; 1.0 lb/MWh-net of NO _x
NO _x - Operation at less than 70% of the base load rating	Input Based Standard: 96 ppm NO _x at 15 percent O ₂ (0.16 lb/MMBtu)
NO _x – Heat recovery unit operating independent of the combustion turbine	Input Based Standard: 54 ppm NO _x at 15 percent O ₂ (0.20 lb/MMBtu)
SO ₂	0.90 pounds SO ₂ per megawatt-hour (lb/MWh) gross output or; Not burn any fuel that contains emissions in excess of 0.060 lb SO ₂ /MMBtu heat input

Each combustion turbine will utilize dry low-NO_x (DLN) combustors and selective catalytic reduction (SCRs) to meet the NSPS KKKKa NO_x emission limits. Water injection will also be utilized when firing fuel oil. The part load standard is applicable during any hour the combustion turbine operates below 70% of the base load rating. During each operating hour when the heat input to the turbine is less than 50% natural gas at any point during the operating hour, the fuel oil standard applies. During each operating hour when the heat input to the turbine is greater than 50% natural gas, the applicable NO_x standard is determined by pro-rating the natural gas and fuel oil standards. Note that compliance with these input-based standards is determined



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on a 4-operating-hour rolling average basis. The facility may choose to comply with the output-based standards, where compliance is determined on a 30-operating-day average basis. A NO_x CEMS will be used to monitor compliance with the applicable limit. Excess emissions are defined as any unit operating period in which the 4-hour or 30-day (as applicable) average NO_x emissions rate exceeds the applicable emissions limit.

The SO₂ emission limit will be met by firing fuels (natural gas and fuel oil) which will result in emissions containing less than 0.060 lb SO₂/MMBtu heat input. Applicant proposes to demonstrate compliance with the SO₂ emissions limits using supplier purchasing contract(s) or tariff sheet(s) in accordance with 40 CFR §60.4372a.

Not Applicable – Subpart OOOOb (Crude Oil and Natural Gas Facilities)

This subpart applies to onshore affected facilities that were constructed after December 6, 2022. Per 40 CFR §60.5365(b), facilities located inside and including the Local Distribution Company (LDC) custody transfer station are not subject to this subpart. An LDC is defined as “a utility that owns/operates its own natural gas pipeline network for the purpose of delivering gas to customers behind its system.” Since the facility will own the pipeline network, it will be considered a Local Distribution Company (LDC); therefore, the compressors and associated fugitive emissions from the compressor station are not subject to NSPS Subpart OOOOb.

Not Applicable – Subpart TTTT (Greenhouse Gas Emissions for Electric Generating Units)

This subpart establishes emission standards and compliance schedules for the control of GHG emissions from a stationary combustion turbine that commences construction after January 8, 2014, but on or before May 23, 2023, or commences reconstruction after June 18, 2014, but on or before May 23, 2023. The combustion turbines will be constructed after these dates; therefore, this Standard does not apply.

Applicable – Subpart TTTTa (Greenhouse Gas Emissions for Electric Generating Units)

This Subpart includes emissions standards and compliance schedules for stationary combustion turbines that commence construction or reconstruction after 23 May 2023 that have a base load rating greater than 250 MMBtu/hr. In accordance with 40 CFR §60.5509a(a), these turbines are subject to NSPS TTTTa because they each have a base load rating greater than 250 MMBtu/hr, serve a generator or generators capable of selling greater than 25 megawatts (MW) of electricity to a utility power distribution system, will commence construction after 23 May 2023, and do not meet any exemption criteria under 40 CFR §60.5509a(b).

The facility will operate the combustion turbines as base load units. As base load units, the combustion turbines would be subject to a Phase I CO₂ emissions standard under 40 CFR §60.5520a(a) and Table 1 to TTTTa based on gross energy output or net energy output. For base load natural gas-fired combustion turbines, the 12-operating month average CO₂ emissions standard that applies before January 2032 is 800 lb CO₂/MWh of gross energy output or 820 lb CO₂/MWh of net energy output. The 12-operating month average CO₂ emissions standard that applies to these base load combustion turbines after December 2031 is 100 lb CO₂/MWh of gross energy output or 97 lb CO₂/MWh of net energy output. These post-2031 emissions limitations (Phase 2) are based on carbon capture and sequestration as the best system of emission reduction (BSER). Emissions are determined in accordance with the procedures in 40 CFR §60.5525a. Compliance with



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the limits is determined in accordance with the procedures in 40 CFR §60.5525a. The monitoring, recordkeeping, and reporting requirements are specified under 40 CFR §60.5535a, §60.5560a, and §60.5555a, respectively.

40 CFR 61 and 61-62.61 (National Emission Standards for Hazardous Air Pollutants (NESHAP))

Not Applicable - This facility does not emit pollutants (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride) in a way that is subject to this standard.

40 CFR 63 and 61-62.63 (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories)

Applicable - Subpart YYYY (Stationary Combustion Turbines)

Stationary combustion turbines located at a major source of HAP emissions are subject to this NESHAP pursuant to 40 CFR §63.6085. Because the Facility will be a major source of HAP emissions, the proposed combustion turbines will be subject to this NESHAP.

The proposed advanced-class combustion turbines will be equipped with DLN combustors that are considered a lean premix combustor technology. The units will fire both natural gas and fuel oil. Per 40 CFR §63.6100, lean premix gas or fuel oil-fired combustion turbines are subject to an HCHO emission limitation of 91 parts per billion by volume on a dry basis (ppbvd) at 15% O₂, except during startup.

The combustion turbines will comply with the NESHAP YYYY formaldehyde emissions limitation via the use of oxidation catalyst systems. Initial compliance will be demonstrated via performance testing per 40 CFR §63.6110, §63.6120, and §63.6130. Subsequent performance testing will be performed on an annual basis as required by 40 CFR §63.6115. Per 40 CFR §63.6125(a), each combustion turbine will be equipped with a system to continuously monitor the inlet temperature to the oxidation catalyst. Continuous compliance will be demonstrated by maintaining the 4-hour rolling average catalyst inlet temperature within the range suggested by the catalyst manufacturer. Catalyst inlet temperatures during startup periods will be excluded from the 4-hour rolling average calculation pursuant to Table 2 of NESHAP YYYY. The facility will comply with the applicable notification, reporting, and recordkeeping requirements of 40 CFR §§ 63.6145, 63.6150, and 63.6155, respectively.

Applicable - Subpart ZZZZ (Stationary Reciprocating Internal Combustion Engines)

A stationary reciprocating ICE (RICE) located at a major or area source of HAP emissions is considered an affected source under this NESHAP. The three proposed 2500-kWe emergency generator engine sets and two 315-bhp fire water pump engines will be considered new stationary RICEs subject to NESHAP ZZZZ as follows:

- Per 40 CFR §63.6590(a)(2)(i), a stationary RICE with a site rating of more than 500 brake hp that is located at a major source of HAP emissions is considered a new stationary RICE for which construction



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commences after 19 December 2002, which will include the three proposed emergency generator engines.

- Per 40 CFR §63.6590(a)(2)(ii), a stationary RICE with a site rating of less than 500 brake hp that is located at a major source of HAP emissions is considered a new stationary RICE for which construction commences after 12 June 2006, which will include the two proposed fire water pump engines.

The emergency generator engines and emergency fire water pump engines are emergency stationary RICE as defined in 40 CFR §63.6675. Because the three proposed 2,500-kWe emergency generator engines are emergency stationary RICE over 500 hp, they are not subject to the emission limitations or operating limitations applicable to other large stationary RICE under NESHAP ZZZZ, per 40 CFR §63.6600(c). However, pursuant to §63.6590(b)(1)(i), the three proposed emergency generator engines, as they will be larger than 500 bhp, will be required to comply with the initial notification requirements specified in 40 CFR §63.6645(f). Fuel used in these RICE will meet the requirements of 40 CFR §63.6604(c), as discussed in Section 0. Operation of the emergency engines will be limited in accordance with 40 CFR §63.6640(f).

The emergency fire pump engines meet the criteria under 40 CFR §63.6590 (c) and must comply with NESHAP ZZZZ by following the requirements for NSPS IIII. No further requirements under NESHAP ZZZZ apply.

Applicable - Subpart DDDDD (Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters)

New, reconstructed, and existing boilers and process heaters located at a major source of HAPs are subject to the requirements of this NESHAP. After initial commissioning of the CCCT power trains, the auxiliary boiler will be subject to NESHAP DDDDD as a limited-use unit and a tune up will be required every five years. During initial commissioning of the CCCT power trains, the auxiliary boiler may not meet the limited-use boiler definition and would be required to comply with the requirements of NESHAP DDDDD applicable to a Gas 1 fired boiler with a heat input capacity greater than 10 MMBtu/hr, including the annual tune up requirement in 40 CFR §63.7540(a)(10).

The new fuel gas heaters will also be subject to this NESHAP as Gas 1 process heaters. The larger fuel gas heaters (HT1-HT3) will be subject to annual tune-up requirements pursuant to 40 CFR §63.7540(a)(10). The smaller fuel gas heater (HT4) will require a tune up every year five years per 40 CFR §63.7540(a)(12).

Not Applicable - Subpart UUUUU (National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units)

The combustion turbines are subject to 40 CFR 63 Subpart YYYY. In accordance with § 63.9983(a), units subject to 40 CFR 63 Subpart YYYY are not subject to this NESHAP.

Not Applicable - 61-62.68 (Chemical Accident Prevention Provisions)

The application did not identify any subject chemicals.



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Applicable - 40 CFR 64 (Compliance Assurance Monitoring)

Each turbine has CO, VOC, and NO_x emissions that meet the definition of a large pollutant -specific emission unit under § 64.5(a). The facility must address the requirements of this regulation in their initial Title V application.

Applicable - 61-62.72, 40 CFR 72, 73, 74, 75, and 76 (Acid Rain)

Pursuant to 40 CFR §72.30(b)(2)(iii) an owner or operator is required to submit a complete acid rain permit application for an affected facility at least 24 months before the unit begins to serve a generator with a nameplate capacity greater than 25 MWe. The CCCTs are subject to the monitoring provisions of 40 CFR Part 75, per 40 CFR §75.2(a). The facility will install, certify, operate, and maintain CEMS for NO_x, CO₂, and O₂. The facility will utilize the SO₂ emissions data protocol in Appendix D to 40 CFR Part 75 in lieu of installing a SO₂ CEMS.

Applicable - 61-62.96 (NO_x Budget Program)

The NO_x Budget Program regulation applies to units commencing operation on or after January 1999 that serve a generator with a nameplate capacity greater than 25 MWe and produces electricity for sale. The rule was established to mitigate the interstate transport of ozone and to limit summertime NO_x emissions in order to combat seasonal ozone formation. The new combustion turbines will be subject to the State's NO_x Budget Program. The facility will comply with the monitoring, recordkeeping and reporting requirements of the rule and will adopt these provisions for the new combustion turbines.

Applicable - 61-62.97 (CSAPR)

The proposed combustion turbines will each serve a generator with a nameplate capacity of more than 25 MWe and produce electricity for sale after 01 January 2005. As such, the combustion turbines will be considered CSAPR NO_x Annual Units and CSAPR SO₂ Group 2 Units pursuant to 40 CFR §97.404(a)(1) and 40 CFR §97.704(a)(1). The facility will comply with the applicable CSAPR monitoring and allocation requirements of these regulations for NO_x emissions using the CEMS installed for demonstrating compliance with NSPS Subpart KKKKa discussed in Section 5.2.3. Pursuant to 40 CFR §97.630(a), Applicant will determine SO₂ emissions according to the methods described in 40 CFR §75.11(e)(1) in lieu of installing an SO₂ CEMS because the new units meet the definition of gas-fired units in 40 CFR §72.2 and will fire pipeline natural gas as defined in 40 CFR §72.2.

AMBIENT AIR STANDARDS REVIEW

Applicable/Not Applicable - Standard No. 2 (Ambient Air Quality Standards)

See modeling summary dated DRAFT

Applicable/Not Applicable - Standard No. 8 (state only) (Toxic Air Pollutants)

See modeling summary dated DRAFT



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PERIODIC MONITORING					
ID	Applicable Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
CT1 - CT3, EG01 - EG03, FP01, FP02, FUGNG, EGBT01- EGBT03, FPBT01, FPBT02, AST1, AST2, FUGSF6, COOL1 – COOL6, DELUGE1 – DELUGE3 (B.6)	S.C. Regulation 61- 62.5, Standard No. 4 20% Opacity Limit	Visual Inspections	Semiannual	Semiannual	No visual emissions are expected from these sources based on potential PM emissions. Semiannual visual inspections will be adequate. (B.7)
CT1, CT2, CT3, DB1, DB2, DB3 (B.8)	S.C. Regulation 61- 62.5, Standard No. 7 (BACT Limits for PM filterable, PM ₁₀ and PM _{2.5})	PM filterable, PM ₁₀ and PM _{2.5}	Initial Source Test, Inlet Air Filter Monitoring, Fuel Sulfur Limit	Semiannual	An initial source test will be used to demonstrate compliance with the limit. (B.9) Natural gas and fuel oil sulfur content will be limited (B.10) (B.11) along with inlet air filter inspections for ongoing compliance. (B.12)
CT1, CT2, CT3, DB1, DB2, DB3, AB1, HT1, HT2, HT3, HT4 (B.11)	S.C. Regulation 61- 62.5, Standard No. 7 (Natural Gas Sulfur Content)	Fuel Sulfur	Fuel Supplier Information as delivered	Semiannual	The PM filterable, PM ₁₀ , PM _{2.5} , SO ₂ and H ₂ SO ₄ rely on limiting the sulfur content as fuel for their BACT. (B.11)



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ID	Applicable Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
AB1 (B.13)	S.C. Regulation 61-62.5, Standard No. 7 Operation Limits	Hours of Operation and Capacity Factor	Monthly	Semiannual	Limited operation is BACT for PM filterable, PM ₁₀ and PM _{2.5} , SO ₂ , NO _x , CO, and VOC. Heat input and hour of operation recordkeeping will be used for monitoring. (B.13)
EG1, EG2, EG3, FP1, FP2 (B.14)	S.C. Regulation 61-62.5, Standard No. 7 Fuel Sulfur Content	Diesel Fuel Sulfur Content	Per delivery	On-Site	Fuel oil supplier certification shall be obtained for each batch of oil received is BACT for PM filterable, PM ₁₀ and PM _{2.5} and SO ₂ . Since only ultra-low sulfur diesel is commercially available, on-site recordkeeping is sufficient. (B.14)
CT1, CT2, CT3, DB1, DB2, DB3 (B.15)	(S.C. Regulation 61-62.5, Standard No. 7 (BACT Limits for CO and VOC)	CO and VOC Source Test, CATOX Inlet Temperature, CO CEMs	One time source test, and continuous	Semiannual	The CO CEMs will be used for the CO BACT limit (B.17) and a proxy for the VOC limit along with an initial source test for VOC (B.16). Inlet temperature monitoring will also be performed (B.18)
CT1, CT2, CT3, DB1, DB2, DB3 (B.19)	(S.C. Regulation 61-62.5, Standard No. 7 (BACT Limits for Startups and Shutdowns)	Hours of operation	Daily	Semiannual	Recording the hours of startup and shutdown events will provide a means to calculate 12-month rolling sums to demonstrate compliance with the limit. (B.19)



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ID	Applicable Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
AB1, HT1, HT2, HT3, HT4 (B.20)	S.C. Regulation 61-62.5, Standard No. 7 (Good Combustion Practices)	Operation and Maintenance Plan	As needed	On-Site	BACT for CO and VOC will be operating and maintaining the boiler and heaters in accordance with an operation and maintenance plan. (B.20)
EGBT1, EGBT2, EGBT3, FPBT1, FPBT2, AST1, AST2 (B.21)	S.C. Regulation 61-62.5, Standard No. 7 (BACT for VOC)	Submerged Tank Filling	Annual Inspections	On-Site	BACT for VOC is submerged filling. This reduces VOC emissions by minimizing surface turbulence. (B.21)
CT1, CT2, CT3, DB1, DB2, DB3 (B.22)	S.C. Regulation 61-62.5, Standard No. 7 (BACT Limits for NO _x)	NO _x CEMs	--	--	The facility will monitor the CEMs per the requirements of 40 CFR 60 Subpart KKKK Post-11/1990 Federal Regulation. *Monitoring inherently adequate.
CT1, CT2, CT3, DB1, DB2, DB3 (B.23)	S.C. Regulation 61-62.5, Standard No. 7 (BACT Limits for NO _x During Startups and Shutdowns)	NO _x CEMs	--	--	The facility will monitor the CEMs per the requirements of 40 CFR 60 Subpart KKKK Post-11/1990 Federal Regulation. *Monitoring inherently adequate.
CT1, CT2, CT3 (B.24)	S.C. Regulation 61-62.5, Standard No. 7 (Fuel Oil Limits)	Hours of Fuel Oil Usage	Monthly	Semiannual	Fuel Oil usage is limited to 720 hours annually as BACT for NO _x and GHG. (B.24)
CT1, CT2, CT3, DB1, DB2, DB3 (B.25)	S.C. Regulation 61-62.5, Standard No. 7 (BACT Limit for CO ₂ e)	Heat Input	Monthly	Semiannual	The heat input is used to calculate CO ₂ emissions. (B.25)



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ID	Applicable Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
FUGSF6 (B.26)	S.C. Regulation 61-62.5, Standard No. 7 (BACT for CO ₂ e)	Low Pressure Events	Per Event	Semiannual	Alarms will be used to alert the facility of low-pressure events. By addressing the event, the loss of SF ₆ can be reduced. (B.26)
FUGNG (B.27)	S.C. Regulation 61-62.5, Standard No. 7	AVO inspections	Weekly	On-Site	An AVO program will be used to address any leaks discovered by the AVO inspections. (B.27)
COOL1 – COOL6 (B.28)	S.C. Regulation 61-62.5, Standard No. 7 (Particulates)	---	Monthly	On-Site	The demisters will be inspected to ensure proper operation. There are no gauges on these. (B.28)
DELUGE1 – DELUGE3 (B.29)	S.C. Regulation 61-62.5, Standard No. 7 (Particulates)	---	Monthly	On-Site	The demisters will be inspected to ensure proper operation. There are no gauges on these. (B.29)
CT1, CT2, CT3, DB1, DB2, DB3 (B.31)	40 CFR 60 Subpart KKKKa NO _x Limit	--	--	--	Post-11/1990 Federal Regulation. *Monitoring inherently adequate.
CT1, CT2, CT3, DB1, DB2, DB3 (B.33)	40 CFR 60 Subpart KKKKa SO ₂ Limit	--	--	--	Post-11/1990 Federal Regulation. *Monitoring inherently adequate.
CT1, CT2, CT3, DB1, DB2, DB3 (B.47)	40 CFR 60 Subpart TTTTa CO ₂ Limit	--	--	--	Post-11/1990 Federal Regulation. *Monitoring inherently adequate.

*40 CFR 64.2(b)(1) – Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act.

PUBLIC NOTICE

This construction permit(s) will undergo a 30-day public notice period, in accordance with SC Regulation 61-62.1, Section II(N) and add (SC Regulation 61-62.5, Standard 7(Q)).



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SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.