



Connecticut Department of
**ENERGY &
ENVIRONMENTAL
PROTECTION**

**BUREAU OF AIR MANAGEMENT
TITLE V OPERATING PERMIT**

Issued pursuant to Title 22a of the Connecticut General Statutes (CGS) and Section 22a-174-33 of the Regulations of Connecticut State Agencies (RCSA) and pursuant to the Code of Federal Regulations (CFR), Title 40, Part 70.

Title V Permit Number	144-0033-TV
Client/Sequence/Town/Premises Numbers	7519/001/144/0014
Date Issued	September 19, 2019
Expiration Date	September 19, 2024

Corporation:

CPV Towantic, LLC

Premises Location:

16 Woodruff Hill Road, Oxford, CT 06478

Name of Responsible Official and Title:

Donald Atwood, Asset Manager Representative

All the following attached pages, 2 through 47, are hereby incorporated by reference into this Title V permit.

/s/ Betsey C. Wingfield
Betsey C. Wingfield
Deputy Commissioner

9/19/2019
Date

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Title V Operating Permit

All conditions in Sections III, IV, and VI of this Title V permit are enforceable by both the Administrator and the commissioner unless otherwise specified. Applicable requirements and compliance demonstration are set forth in Section III of this Title V permit. The Administrator or any citizen of the United States may bring an action to enforce all permit terms or conditions or requirements contained in Sections III, IV, and VI of this Title V permit in accordance with the Clean Air Act, as amended.

LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
°F	Degree Fahrenheit
Btu	British Thermal Unit
bhp	Brake Horsepower
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
cf	Cubic Feet
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CH ₄	Methane
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
COMS	Continuous Opacity Monitoring System
CTG	Combustion Turbine Generator
DEEP	Department of Energy and Environmental Protection
DLN	Dry Low NO _x
dscf	Dry standard cubic feet
EU	Emissions Unit
EPA	Environmental Protection Agency
FGR	Flue Gas Recirculation
g	Gram
gal	Gallon
GEU	Grouped Emissions Unit
GHG	Greenhouse Gas
H ₂ SO ₄	Sulfuric Acid
HAP	Hazardous Air Pollutant
HHV	Higher Heating Value
hp	Horsepower
HRSG	Heat Recovery Steam Generator
hr	Hour
ISO-NE	Independent System Operator – New England
kW	Kilowatt
lb	Pound
MASC	Maximum Allowable Stack Concentration
MMBtu	Million Btu
MMft ³	Million Cubic Feet
MW	Megawatt
MWh	Megawatt Hour
N ₂ O	Nitrous Oxide
NAAQS	National Ambient Air Quality Standards
NESHAP	National Emission Standard for Hazardous Air Pollutants
NH ₃	Ammonia
NMHC	Non-Methane Hydrocarbon
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O ₂	Oxygen
Pb	Lead

PM

Particulate Matter

LIST OF ABBREVIATIONS/ACRONYMS

Abbreviation/Acronym

Description

PM ₁₀	Particulate Matter less than 10 microns
PM _{2.5}	Particulate Matter less than 2.5 microns
ppmvd	Parts per million, volumetric basis dry
PSD	Prevention of Significant Deterioration
psig	Pounds per Square Inch Gauge
RCSA	Regulations of Connecticut State Agencies
scf	Standard Cubic Feet
scfh	Standard Cubic Feet per Hour
SCR	Selective Catalytic Reduction
SF ₆	Sulfur Hexafluoride
SIC	Standard Industrial Classification Code
SO ₂	Sulfur Dioxide
SOS	Standard Operating Scenario
tpy	Tons per year
ULSD	Ultra-Low Sulfur Distillate
VOC	Volatile Organic Compound

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business: Electrical Generation
Primary SIC: 4911
Other SIC: None

Facility Mailing Address: 16 Woodruff Hill Road, Oxford, CT 06478
Telephone Number: 203-814-1208

B. PREMISES DESCRIPTION

CPV Towantic, LLC (CPV Towantic) operates a power generation facility consisting of two combustion turbines, an auxiliary boiler, an emergency engine for back-up power, and an emergency fire pump in Oxford, CT which became operational in May of 2018.

Combined Cycle Units (GEU-1: EU-1 & EU-2)

GEU-1 consists of two General Electric 7HA.01 combustion turbine generators (CTGs) with dry low NO_x (DLN) combustors with a combined nominal gross electrical output of 805 MW. The CTG's are dual fuel fired combined cycle units, each with a separate heat recovery steam generator (HRSG) that includes natural gas supplementary firing (duct burners) to power a single steam turbine generator. Oil firing for the turbines is limited to ultra-low sulfur distillate (ULSD) No. 2 fuel oil during periods of natural gas curtailment or as allowed in Section III.A.1 of this Title V permit. Pollution control equipment includes selective catalytic reduction (SCR), oxidation catalyst, and water injection (ULSD firing only) to control NO_x, and CO emissions. The units operate in accordance with Permit Nos. 144-0023 and 144-0024.

The CTGs are subject to New Source Performance Standards (NSPS) 40 CFR Part 60 Subpart KKKK - Standards of Performance for Stationary Combustion Turbines and 40 CFR Part 60 Subpart TTTT - Standards of Performance for Greenhouse Emissions for Electric Generating Units. The emission rates in the NSR permits for all applicable pollutants are below the limitations outlined in these NSPS's. GEU-1 is also subject to the 40 CFR Part 60 Subpart A - General Provisions. GEU-1 is a Phase II Acid Rain source and the Continuous Emission Monitor (CEM) system is certified in accordance with 40 CFR Part 75. The Acid Rain Permit was issued on July 28, 2017 and has not been incorporated into this Title V permit at this time.

The applicable requirements for GEU-1 are from Permit Nos. 144-0023 and 144-0024; as well as 40 CFR Part 60 Subparts KKKK and TTTT.

Auxiliary Boiler (EU-3)

EU-3 is a CB-Nebraska NB-300D-70, 92.4 MMBtu/hr natural gas fired boiler to assist with startup of the combustion turbines by maintaining warm or hot-start conditions for the HRSG's and steam turbine. The unit is equipped with Ultra-Low NO_x burners and flue gas recirculation to control NO_x emissions. The unit is subject to NSPS 40 CFR Part 60 Subparts Dc and A, and operates in accordance with Permit No. 144-0025.

Since EU-3 is only natural gas fired, the National Emission Standard for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources (NESHAP) 40 CFR Part 63 Subpart JJJJJ does not apply pursuant to 40 CFR §63.11195(e).

Section I: Premises Information/Description

The applicable requirements for EU-3 are from Permit No. 144-0025 as well as 40 CFR Part 60 Subpart Dc.

Emergency Engines (GEU-2: EU-4 & EU-5)

EU-4 is a Caterpillar 3512C 4-Stroke Lean Burn, 1500 kW ULSD fired emergency generator engine to provide back-up power to the facility and operates in accordance with Permit No. 144-0026. EU-5 is a 350 bhp 4-Stroke Lean Burn John Deere distillate fired fire pump to provide emergency fire protection for the facility and operates in accordance with Permit No. 144-0027. The generators are not connected to the electrical grid and are only utilized as emergency engines as defined in RCSA §22a-174-22e.

The units are subject to the NSPS 40 CFR Part 60 Subparts IIII - Stationary Compression Ignition Internal Combustion Engine and A – General Provisions. Each unit has a displacement less than 30 liters per cylinder, mechanical rating of 2,206 brake horsepower (bhp) and meets EPA's Tier 2 emission limits. The emissions limits in this Title V permit reflect the full load emission rates and are compliant with the Tier 2 requirements. Pursuant to 40 CFR §63.6590(c), these units comply with the NESHAP for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines 40 CFR Part 63 Subpart ZZZZ by complying with 40 CFR Part 60 Subpart IIII.

The applicable requirements for EU-4 are from Permit No. 144-0026 as well as 40 CFR Part 60 Subpart IIII. The applicable requirements for EU-5 are from Permit No. 144-0027 as well as 40 CFR Part 60 Subpart IIII.

CPV Towantic's Acid Rain permit, Permit No. 144-0001-TIV, was issued on July 28, 2017 and is not being incorporated into this Title V permit at this time. The Acid Rain permit renewal will be required in July 2022 and at that time the Acid Rain and Title V permit will be incorporated as a combined Title IV and Title V permit.

Premises-Wide General Requirements

This section addresses the requirements that are applicable to the entire facility. The Permittee must comply with all of these requirements, however no specific monitoring, record keeping and reporting requirements are being included in the Title V permit. This section also addresses regulations for which the premises must demonstrate compliance no matter how the specific emission unit is operated; as well as Air pollution emergency episode procedures, Prohibition against concealment and circumvention, Public availability of information, Annual emissions inventory, Emission fees and open burning.

Insignificant Emission Sources

The facility also utilizes ancillary equipment that is exempt from permitting in accordance with RCSA §22a-174-3a(a)(1)(D). This equipment includes a 19 percent, by weight, aqueous ammonia tank for use in the SCR system; a 1.5 million gallon ULSD storage tank for backup fuel to the CTGs; and a dedicated ULSD storage tank for each of the emergency engines. The VOC emissions from these ULSD storage tanks are calculated and included in the facility-wide 12-month rolling limit for VOC emissions in Permit Nos. 144-0023 and 144-0024; and therefore this Title V permit.

The 1.5 million gallon ULSD storage tank is not subject to NSPS 40 CFR Part 60 Subpart Kb - Volatile Organic Liquid Storage Vessels because the true vapor pressure of ULSD is less than 3.5 kilopascals.

Section II: Emissions Units Information

A. EMISSIONS UNITS DESCRIPTION

Emissions units are set forth in Table II.A. It is not intended to incorporate by reference these NSR Permits or Regulations into this Title V permit.

TABLE II.A: EMISSIONS UNITS DESCRIPTION			
Emissions Unit/ Grouped Emissions Unit	Emissions Unit Description	Control Unit Description	Permit or Regulation Number
EU-1	Unit 1: General Electric 7HA.01 Gas Turbine Generator with DLN combustors, Duct Burners and Heat Recover Steam Generator Commercial Operation Date May 21, 2018	SCR Oxidation Catalyst Water Injection (ULSD only)	P144-0023 40 CFR Part 60 Subparts KKKK, A 40 CFR Part 60 Subparts TTTT, A 40 CFR Parts 72-78, inclusive RCSA §§22a-174-18, 19a, 22c, 22e, 29
EU-2	Unit 2: General Electric 7HA.01 Gas Turbine Generator with DLN combustors, Duct Burners and Heat Recover Steam Generator Commercial Operation Date May 21, 2018	SCR Oxidation Catalyst Water Injection (ULSD only)	P144-0024 40 CFR Part 60 Subparts KKKK, A 40 CFR Part 60 Subparts TTTT, A 40 CFR Parts 72-78, inclusive RCSA §§22a-174-18, 19a, 22c, 22e, 29
EU-3	CB-Nebraska NB-3000-70, natural gas fired 92.4 MMBtu/hr Auxiliary Boiler Commercial Operation Date May 21, 2018	Ultra-Low NOx Burners, Flue Gas Recirculation (FGR)	P144-0025 40 CFR Part 60 Subparts Dc, A RCSA §§22a-174-18, 22e, 29
EU-4	Caterpillar 3512C-4 4-Stroke Lean Burn, 1500 kW ULSD fired Emergency Engine Commercial Operation Date May 21, 2018	None	P144-0026 40 CFR Part 60 Subparts IIII, A RCSA §§22a-174-18, 22e, 29
EU-5	350 bhp 4-Stroke Lean Burn John Deere ULSD fired Fire Pump Engine Commercial Operation Date May 21, 2018	None	P144-0027 40 CFR Part 60 Subparts IIII, A RCSA §§22a-174-18, 22e, 29
GEU-1	EU-1 and EU-2	See above	See above
GEU-2	EU-4 and EU-5	See above	See above

Section II: Emissions Units Information

B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios (SOS). There are no alternate operating scenarios.

TABLE II.B: OPERATING SCENARIO IDENTIFICATION	
Emissions Units Associated with the Scenario	Description of Scenario
All Emission Units	All emissions units associated with SOS shall be operated in accordance with applicable permit or registration terms and conditions and in accordance with best management practices while combusting liquid fuels or natural gas as allowed.

Section III: Applicable Requirements and Compliance Demonstration

The following contains summaries of applicable regulations and compliance demonstration for each identified Emissions Unit regulated by this Title V permit.

A. GROUPED EMISSIONS UNIT 1 (GEU-1): Two General Electric 7HA.01 CTG with DLN combustors, Duct Firing and individual HSRG, connected to a single steam turbine

Subject to: Permit Nos. 144-0023 and 144-0024; 40 CFR Part 60 Subparts KKKK, A; 40 CFR Part 60 Subparts TTTT, A; 40 CFR Parts 72-78, inclusive; RCSA §§22a-174-18, 19a, 22c, 22e, 29

1. Allowable Fuel Usage [P144-0023 and 144-0024]

a. *Limitation or Restriction*

All fuel firing rate limits are per unit.

i. Turbine

(A) Natural Gas

- (1) Natural gas shall be the primary fuel combusted in GEU-1.
- (2) Design Gross Heat Input: 2,544 MMBtu/hr
 - (a) Based on an ambient temperature of 59⁰F and firing rate of 2,435,742 scf of natural gas (HHV 996 Btu/scf). Heat input will vary by approximately $\pm 5\%$ over the typical range of temperatures expected.
- (3) Maximum Heat Input over any Consecutive 12 Month Period: 2.12×10^7 MMBtu

(B) ULSD

- (1) Firing of ULSD is allowed only in the following scenarios:
 - (a) ISO-NE declares an Energy Emergency as defined in ISO-New England's Operating Procedure No. 21 and requests the firing of ULSD.
 - (b) The natural gas supply is curtailed by an entity through which gas supply and/or transportation is contracted,
 - (c) There exists a physical blockage or breakage in the natural gas pipeline,
 - (d) During required performance testing,
 - (e) During routine maintenance and readiness testing.
 - (f) In order to maintain an appropriate turnover of the on-site fuel inventory, to prevent wastage of oil, the owner/operator can fire ULSD when the last delivery of oil was more than six months ago.
 - (g) The Permittee shall not operate the duct burner while firing ULSD in the respective turbine.
- (2) Design Gross Heat Input: 2,511 MMBtu/hr
Based on an ambient temperature of 59⁰F and firing rate of 17,326 gallons of ULSD per hour (HHV 138,000 Btu/gal). Heat input will vary by approximately $\pm 5\%$ over the typical range of temperatures expected.
- (3) Maximum Heat Input over any Consecutive 12 Month Period: 1.72×10^6 MMBtu
- (4) Maximum Distillate Fuel Oil Sulfur Content (% by weight, dry basis): 0.0015

Section III: Applicable Requirements and Compliance Demonstration

ii. Duct Burner

(A) Natural Gas

- (1) Maximum Heat Input over any Consecutive 12 Month Period: 9.69×10^5 MMBtu
- (2) Design Gross Heat Input: 228 MMBtu/hr

Based on an assumed HHV of 996 Btu/scf and results in a firing rate of 228,916 scfh.

b. *Monitoring Requirements* [P144-0023 and 144-0024]

The Permittee shall use fuel flow meters, certified in accordance with 40 CFR Part 75 Appendix D to measure and record the flow rate of fuels to each turbine and duct burner in GEU-1. Averaging times shall be based on a 1 hour block average.

c. *Record Keeping Requirements* [P144-0023 and 144-0024]

- i. For each turbine in GEU-1, the Permittee shall keep records of monthly and consecutive 12 month fuel consumption (for each fuel). The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations with 30 days of the end of the previous month.
- ii. For each duct burner in GEU-1, the Permittee shall keep records of monthly and consecutive 12 month natural gas consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
- iii. The Permittee shall keep records of the monthly and consecutive 12 month heat input to each turbine and duct burner in GEU-1 for both natural gas and ULSD firing. The records shall include sample calculations.
- iv. The Permittee shall make and keep records of all occurrences of firing ULSD in each turbine in GEU-1. At a minimum these records shall contain the following information for each turbine:
 - (A) the duration of ULSD firing;
 - (B) the reason for ULSD firing; and
 - (C) the heat input to the turbine.
- v. The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel.
- vi. The Permittee shall keep records of the monthly and consecutive 12 month heat input to each duct burner. The records shall include sample calculations.

d. *Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

Section III: Applicable Requirements and Compliance Demonstration

2. Steady State Emissions [P144-0023 and 144-0024]

a. Limitation or Restriction

The Permittee shall not cause or allow any turbine in GEU-1 to exceed the emission limits in Section III.A.2.a. of this Title V permit. All emissions limits are per unit, unless otherwise noted.

i. "Steady-state" operation shall be defined as all periods of operation other than transient operation. Minimum steady state operating load shall be 30% while firing natural gas and 50% while firing ULSD, and emission levels are within steady state limits. "Load" shall be defined as the net electrical output of the turbine.

ii. Turbine Operating on Natural Gas without Duct Firing

(A) PM

- (1) 9.73 lb/hr
- (2) 6.5E-3 lb/MMBtu

(B) PM_{10/2.5}

- (1) 9.73 lb/hr
- (2) 6.5E-3 lb/MMBtu

(C) SO₂

- (1) 4.49 lb/hr
- (2) 1.5E-3 lb/MMBtu
 - (a) 0.33 lb/MMBtu [RCSA §22a-174-19a(e)]

(D) NO_x

- (1) 19.4 lb/hr
- (2) 2.0 ppmvd @ 15% O₂
- (3) Until May 31, 2023
 - (a) 42 ppmvd @ 15% O₂, daily block average; and [RCSA §22a-174-22e(d)(5)(A)]
 - (b) 0.15 lb/MMBtu, non-ozone season limit; 7 month average during the period October 1 through April 30, inclusive [RCSA §22a-174-22e(d)(5)(B)]
- (4) On and after June 1, 2023
 - (a) 25 ppmvd @ 15% O₂, daily block average; and [RCSA §22a-174-22e(d)(5)(C)]
 - (b) 0.15 lb/MMBtu, non-ozone season limit; 7 month average during the period October 1 through April 30, inclusive [RCSA §22a-174-22e(d)(5)(D)]

Section III: Applicable Requirements and Compliance Demonstration

- (E) VOC
 - (1) 3.37 lb/hr
 - (2) 1.0 ppmvd @ 15% O₂
 - (F) CO
 - (1) 5.31 lb/hr
 - (2) 0.9 ppmvd @ 15% O₂
 - (G) Lead
 - (1) 1.3E-03 lb/hr
 - (H) H₂SO₄
 - (1) 2.11 lb/hr
 - (I) Ammonia
 - (1) 2.0 ppmvd @ 15% O₂
- iii. Turbine Operating on Natural Gas with Duct Firing
- (A) PM
 - (1) 15.1 lb/hr
 - (2) 8.1E-3 lb/MMBtu
 - (B) PM_{10/2.5}
 - (1) 15.1 lb/hr
 - (2) 8.1E-3 lb/MMBtu
 - (C) SO₂
 - (1) 4.8 lb/hr
 - (2) 1.5E-3 lb/MMBtu
 - (a) 0.33 lb/MMBtu [RCSA §22a-174-19a(e)]
 - (D) NO_x
 - (1) 20.7 lb/hr
 - (2) 2.0 ppmvd @ 15% O₂
 - (3) Until May 31, 2023
 - (a) 42 ppmvd @ 15% O₂, daily block average; and [RCSA §22a-174-22e(d)(5)(A)]
 - (b) 0.15 lb/MMBtu, non-ozone season limit; 7 month average during the period October 1 through April 30, inclusive [RCSA §22a-174-22e(d)(5)(B)]
 - (4) On and after June 1, 2023
 - (a) 25 ppmvd @ 15% O₂, daily block average; and [RCSA §22a-174-22e(d)(5)(C)]

Section III: Applicable Requirements and Compliance Demonstration

- (b) 0.15 lb/MMBtu, non-ozone season limit; 7 month average during the period October 1 through April 30, inclusive

[RCSA §22a-174-22e(d)(5)(D)]

(E) VOC

- (1) 5.09 lb/hr
- (2) 2.0 ppmvd @ 15% O₂

(F) CO

- (1) 10.7 lb/hr
- (2) 1.7 ppmvd @ 15% O₂

(G) Lead

- (1) 1.3E-03 lb/hr

(H) H₂SO₄

- (1) 2.2 lb/hr

(I) Ammonia

- (1) 2.0 ppmvd @ 15% O₂

iv. Turbine Operating on ULSD

(A) PM

- (1) 42.6 lb/hr
- (2) 3.19E-2 lb/MMBtu

(B) PM_{10/2.5}

- (1) 42.6 lb/hr
- (2) 3.19E-2 lb/MMBtu

(C) SO₂

- (1) 4.92 lb/hr
- (2) 1.53E-3 lb/MMBtu
 - (a) 0.33 lb/MMBtu [RCSA §22a-174-19a(e)]

(D) NO_x

- (1) 52.0 lb/hr
- (2) 5.0 ppmvd @ 15% O₂
- (3) Until May 31, 2023
 - (a) 65 ppmvd @ 15% O₂, daily block average; and
[RCSA §22a-174-22e(d)(5)(A)]
 - (b) 0.15 lb/MMBtu, non-ozone season limit; 7 month average during the period October 1 through April 30, inclusive
[RCSA §22a-174-22e(d)(5)(B)]

Section III: Applicable Requirements and Compliance Demonstration

- (4) On and after June 1, 2023
 - (a) 42 ppmvd @ 15% O₂, daily block average; and
[RCSA §22a-174-22e(d)(5)(C)]
 - (b) 0.15 lb/MMBtu, non-ozone season limit; 7 month average during the period
October 1 through April 30, inclusive
[RCSA §22a-174-22e(d)(5)(D)]
- (E) VOC
 - (1) 6.2 lb/hr
 - (2) 2.0 ppmvd @ 15% O₂
- (F) CO
 - (1) 12.7 lb/hr
 - (2) 2.0 ppmvd @ 15% O₂
- (G) Lead
 - (1) 3.7E-2 lb/hr
- (H) H₂SO₄
 - (1) 2.31 lb/hr
- (I) Ammonia
 - (1) 5.0 ppmvd @ 15% O₂
- v. Total Allowable Annual Emission Limits (per unit)
(tons per 12 consecutive months)
 - (A) PM: 76.7
 - (B) PM_{10/2.5}: 76.7
 - (C) SO₂: 19.7
 - (D) NO_x: 94.7
 - (E) VOC: 24.5
 - (F) CO: 64.5
 - (G) Pb: 1.9E-02
 - (H) H₂SO₄: 9.1
 - (I) Ammonia: 35
- vi. Premises Wide VOC Emissions
 - (A) Total annual VOC emissions from all VOC emitting sources located at the premises shall not exceed 49.9 ton/yr
- vii. The Permittee shall operate and maintain the monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all time including transient operation.

Section III: Applicable Requirements and Compliance Demonstration

b. Monitoring and Testing Requirements [P144-0023 and 144-0024]

- i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4, 22a-174-22e, 40 CFR Part 60 Subpart KKKK, and 40 CFR Parts 72-78, as applicable.
- ii. The Permittee shall monitor the following pollutants or operational parameter using Continuous Emission Monitoring (CEM) for each unit in GEU-1:
 - (A) NO_x, CO, and NH₃, 1 hour block average
 - (B) O₂, 1 hour block average
 - (C) Net Electrical Output, continuously
- iii. Recurring stack emission testing shall be required for each unit in GEU-1 for the following pollutants and shall be performed within five years from the date of the previous stack test: PM/PM_{10/2.5}, VOC, Sulfuric Acid, Formaldehyde, Arsenic
 - (A) Stack emission testing shall be performed in accordance with RCSA §22a-174-5 and the Emissions Test Guidelines available on the DEEP website.
 - (B) The Permittee shall perform one set of tests on each turbine when firing natural gas with and without duct firing, and one set of tests with each turbine firing ULSD.
 - (C) Fuel analysis of the arsenic in the distillate oil may be substituted for stack testing while firing distillate oil. Arsenic testing is not required for natural gas firing.
 - (D) At least 60 days prior to any recurring stack test, the Permittee shall submit a CEM monitoring plan to the commissioner in accordance with RCSA §22a-174-4(c)(3).
 - (E) Stack testing may not be required for pollutants requiring CEM.
- iv. For the purposes of determining maximum heat input of each turbine in GEU-1 during performance testing, the following equations may be used:

$$MHI_T = Q_1 - [(T - T_1)/(T_2 - T_1)] \times (Q_1 - Q_2)$$

Where,

MHI_T = Turbine maximum heat input (MMBtu/hr) at ambient temperature (°F)

T = Ambient Temperature

T₁ = Temperature Value from Table 1 that is below the ambient temperature

T₂ = Temperature Value from Table 1 that is above the ambient temperature

Q₁ = Heat Input at corresponding T₁

Q₂ = Heat Input at corresponding T₂

Table 1

Natural Gas Firing		ULSD Firing	
Temperature (T) °F	Heat Input (Q)	Temperature (T) °F	Heat Input (Q)
-14.2	2649	-14.2	2652
20	2672	20	2613
50	2590	50	2559
59	2544	59	2511
90	2416	90	2390
100	2409	100	2331

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- v. The commissioner retains the right to require stack testing for any pollutant at any time to demonstrate compliance.
 - vi. Stack Emission test results shall be reported as follows: all pollutants in units of lb/hr; NO_x, CO, VOC, formaldehyde and ammonia in units of ppmvd at 15% O₂
 - vii. The Permittee shall comply with the CEM monitoring requirements for NO_x emissions in accordance with RCSA §22a-174-22e(m).
- c. *Record Keeping Requirements* [P144-0023 and 144-0024]
- i. The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, CO, H₂SO₄, and NH₃ emissions in units of tons for all fuels combusted.
 - (A) The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
 - (B) Demonstration of compliance with the emissions limits in Section III.A.2.a. of this Title V permit may be met by calculating emissions based on emission factors from the following sources:
 - (1) PM/PM₁₀/PM_{2.5}, H₂SO₄: Stack test data
 - (2) VOC: Stack test data or vendor correlation data
 - (3) SO₂: Sulfur content in fuel
 - (4) NO_x and CO (steady state): CEM Data
 - (5) HAP: AP-42, Fifth Edition, Volume I Chapter 3.1, April 2000 except for those HAP with required stack test found in Part III.A.2.b.iii.(C) of this Title V permit.
 - (C) The Permittee shall keep records of the latest turbine vendor VOC correlation data.
 - (D) Demonstration of compliance with the annual VOC premises wide limit shall be based on each consecutive 12 month time period and shall be determined by adding the current month's VOC premises wide emissions to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.

Monthly premises wide VOC emissions shall be calculated using the following equations:

$$\text{VOC}_{\text{premises}} = \Sigma \text{VOC}_{\text{turbines}} + \Sigma \text{VOC}_{\text{engines}} + \text{VOC}_{\text{aux boiler}} + \Sigma \text{VOC}_{\text{storage tanks}} + \Sigma \text{VOC}_{\text{add}}$$

where,

$\Sigma \text{VOC}_{\text{turbines}}$ = The sum of VOC emissions from the two turbine trains covered by Permit Nos. 144-0023 (EU-1) and 144-0024 (EU-2) determined by correlating the VOC emissions to the CO emissions using the results of a diagnostic stack test or vendor correlation data and tracked using the CO CEMS. VOC emissions from the turbine train shall be recorded on the CEMS data acquisition system.

$\Sigma \text{VOC}_{\text{engines}}$ = The sum of emissions from the emergency engines covered by Permit Nos. 144-0026 (EU-4) and 144-0027 (EU-5). VOC emissions shall be calculated using the following equation:

$$\text{VOC (ton/month)} = [\text{X (VOC lb/hr)} * \text{Y (hr/month)}] * 1 \text{ ton}/2000 \text{ lb}$$

$\text{VOC}_{\text{aux boiler}}$ = The emissions from the auxiliary boiler covered by Permit No. 144-0025 (EU-3). VOC emissions shall be calculated using the following equation:

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$$\text{VOC (ton/month)} = [X (\text{VOC lb/hr}) * Y (\text{hr/month})] * 1 \text{ ton}/2000 \text{ lb}$$

$\Sigma\text{VOC}_{\text{storage tanks}}$ = The emissions from any storage tanks located on the premises shall be determined using the latest version of the EPA TANKS model or other equivalent method.

$\Sigma\text{VOC}_{\text{add}}$ = The VOC emissions from any additional VOC emitting equipment that is added to the premises after the issuance of this Title V permit. The VOC emissions from such equipment shall be calculated using good engineering practices.

The commissioner may require other methods for determining VOC emissions from these sources as allowed by state or federal statute, law or regulation.

- ii. The Permittee shall keep records of the occurrence and duration of any periods during which a continuous monitoring system or monitoring device is inoperative for each unit in GEU-1. Such records shall contain the following information:
 - (A) type of event and percent load;
 - (B) equipment affected;
 - (C) date of the event;
 - (D) duration of event (minutes);
 - (E) fuel being used during event; and
 - (F) total emissions emitted (lb) during the event.

d. Reporting Requirements

- i. The Permittee shall notify the commissioner in writing, for each unit in GEU-1, of all exceedances of an emissions limitation, and shall identify the cause or likely cause of such exceedance, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:
 - (A) For any hazardous air pollutant, no later than 24 hours after such exceedance was identified; and
 - (B) For any other regulated air pollutant, no later than ten days after such exceedance commenced.
- ii. The Permittee shall comply with the applicable record keeping requirements in accordance with RCSA §§22a-174-19a(j) and 22a-174-22e.

3. Transient Emissions [P144-0023 and 144-0024]

a. Limitation or Restriction

The Permittee shall not cause or allow any unit in GEU-1 to exceed the emission limits in Section III.A.3.a. of this Title V permit. All emissions limits are per unit, unless otherwise noted.

- i. "Transient" operation shall be all modes of operation of the combustion turbine during periods of startup, shutdown, fuel switching, run back, and equipment cleaning where turbine load is below 50%, excluding periods of natural gas firing at or above 30% operating load in compliance with the steady state limits in Part III.A of this permit. "Run Back" events shall be defined as occurrences where the turbine load is dropped below the minimum steady state operating load to prevent mechanical failure of the unit or supporting equipment. "Load" shall be defined as the net electrical output of the turbine.

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ii. Natural Gas Firing (lb/hr)

- (A) NO_x: 93
- (B) VOC: 60
- (C) CO: 242
- (D) Ammonia: 5 ppmvd @ 15% O₂

iii. ULSD Firing (lb/hr)

- (A) NO_x: 104
- (B) VOC: 90
- (C) CO: 231
- (D) Ammonia: 5 ppmvd @ 15% O₂

iv. No period of transient operation shall exceed 60 consecutive minutes.

v. The Permittee shall not exceed 500 Transient events per calendar year for each unit in GEU-1.

b. *Monitoring Requirements* [P144-0023 and 144-0024]

Record keeping specified in Section III.A.3.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. *Record Keeping Requirements* [P144-0023 and 144-0024]

i. The Permittee shall keep records of the occurrence and duration of all transient operation of each unit in GEU-1. Such records shall contain the following information:

- (A) type of event and percent load;
- (B) equipment affected;
- (C) date of the event;
- (D) duration of event (minutes);
- (E) fuel being used during event; and
- (F) total NO_x, CO, and VOC emissions emitted (lb) during the event.
- (G) Demonstration of compliance with the emissions limits in Part I.A.3.a. of this Title V permit may be met by calculating emissions based on emission factors from the following source:

- (1) Manufacturer's recommended uncontrolled emission factors

ii. Emissions during transient operation shall be included in the monthly and consecutive 12 month calculations.

d. *Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

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4. CAIR NOx Ozone Season Trading Program

GEU-1 is comprised of CAIR NOx Ozone season units and therefore are subject to RCSA §22a-174-22c. The units shall comply with all applicable requirements stated in RCSA §22a-174-22c and the standard requirements of the CAIR permit application.

5. Opacity [P144-0023 and 144-0024]

a. Limitation or Restriction

- i. The Permittee shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9 for any unit in GEU-1 during operations on natural gas.
- ii. The Permittee shall not exceed 10% opacity during any six minute block average for any unit in GEU-1 as measured by the CEM required in accordance with Section III.A.5.b. of this Title V permit.
- iii. Notwithstanding Section III.A.5.a.ii. of this Title V permit, GEU-1 shall not be subject to the visible emissions standard of Section III.A.5.a.ii. for measurements of opacity using opacity CEM equipment during a period of startup or shutdown; commissioner-approved stack testing; or intentional sootblowing, fuel switching; or sudden load changing done in accordance with good engineering practices provided that:
 - (A) The Permittee is required by permit, order or regulation to install, operate and maintain opacity CEM equipment at such stationary source, and the owner or operator is in compliance with such permit, order or regulation with regard to such opacity CEM equipment. If a stationary source is not subject to a permit, order or regulation requiring operation and maintenance of opacity CEM equipment, an owner or operator may certify on a form acceptable to the commissioner that:
 - (1) the owner or owner or operator of such stationary source has installed opacity CEM equipment that meets the applicable criteria of 40 CFR Part 60, Appendices B and F; and
 - (2) the owner or operator operates and maintains such installed opacity CEM equipment in compliance with the requirements of 40 CFR Part 0, Appendices B and F;
 - (B) The period of exception from the visible emissions standards of this Title V permit does not exceed one-half of one percent (0.5%) of the total operating hours of such stationary source during any calendar quarter; and
 - (C) The owner or operator of the stationary source does not cause or allow visible emissions in excess of sixty percent (60%) opacity during any six-minute block average of the period of exception from the visible emissions standards of Section III.A.5.a.ii. of this Title V permit.

b. Monitoring Requirements [P144-0023 and 144-0024]

- i. The Permittee shall monitor opacity during ULSD firing.
- ii. Recurrent stack testing, using 40 CFR Part 60, Appendix A Reference Method 9 (gas firing), shall be performed within five years from the date of the previous test.

c. Record Keeping Requirements [P144-0023 and 144-0024]

- i. Demonstration of compliance with the opacity limit for ULSD firing in Section III.A.5.a. of this Title V permit may be met by the following sources:
 - (A) ULSD Firing: COMS
 - (B) Natural Gas Firing: Latest 40 CFR Part 60, Appendix A, Reference Method 9 determination.

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d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

6. Hazardous Air Pollutants

a. Limitation or Restriction

The Permittee shall not allow any unit in GEU-1 to cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29.

[STATE ONLY REQUIREMENT] [P144-0023 and 144-0024]

b. Monitoring Requirements

Record keeping specified in Section III.A.6.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.6.a of this Title V permit.

[RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

7. Pollution Control Equipment (SCR/Oxidation Catalyst/Water Injection)

a. Limitation or Restriction [P144-0023 and 144-0024]

- i. The Permittee shall operate the air pollution control equipment in a manner to comply with the emissions limits in Section III.A.2 of this Title V permit.
- ii. The Permittee shall operate and maintain the air pollution control equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including transient operation.
- iii. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations.
- iv. The Permittee shall minimize emissions during periods of transient operation and shall start the ammonia injection no later than when the SCR vendor's recommended minimum catalyst temperature is reached in a manner consistent with good air pollution control practices for minimizing emissions at all time.

b. Monitoring Requirements

- i. The Permittee shall perform inspections and maintenance of the SCR and oxidation catalysts as recommended by the manufacturer. [P144-0023 and 144-0024]

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- ii. Record keeping specified in Section III.A.7.c of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. *Record Keeping Requirements* [P144-0023 and 144-0024]

- i. The Permittee shall keep records of any malfunction of the air pollution control equipment that causes an exceedance of any emission limitation found in Section III.A of this Title V permit for each unit in GEU-1.

Such records shall contain the following information:

- (A) type of event and percent load;
 - (B) equipment affected;
 - (C) date of event;
 - (D) duration of event (minutes);
 - (E) fuel being used during event; and
 - (F) total emissions emitted (lb) during the event
- ii. The Permittee shall keep records of each delivery of aqueous ammonia/urea. The records shall include:
 - (A) the date of delivery;
 - (B) the name of the supplier;
 - (C) the quantity of aqueous ammonia delivered; and
 - (D) the percentage of ammonia in solution, by weight.
 - iii. The Permittee shall keep records of the inspection and maintenance of the SCR and oxidation catalysts for each unit in GEU-1. The records shall include:
 - (A) the name of the person conducting the inspection/maintenance;
 - (B) the date of the inspection/maintenance;
 - (C) the results or actions taken; and
 - (D) the date the catalyst is replace.

d. *Reporting Requirements*

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

8. Greenhouse Gas Emissions and Allowable Heat Rate

a. *Limitation or Restriction* [P144-0023 and 144-0024]

- i. The Permittee shall not exceed a combined annual CO_{2e} emissions limit of 2,675,185 tons/yr for GEU-1 in combination with EU-3, EU-4, and EU-5. Compliance with this limitation shall be determined on a consecutive 12-month rolling basis.
- ii. The Permittee shall not exceed a maximum allowable heat rate at full operating load while firing natural gas, without duct firing, of 7,220 Btu/kW-hr (HHV, net plant) on a 12-month rolling average for GEU-1 combined.

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- b. Monitoring Requirements* [P144-0023 and 144-0024]
- i. Prior to operation, the Permittee shall develop a written plan for the operation, inspection, maintenance, preventive and corrective measures for minimizing GHG emissions (CH₄ emissions from the natural gas pipeline components and SF₆ emissions from the insulated electrical equipment). At a minimum the plan shall provide for:
 - (A) Implementation daily auditory/visual/olfactory inspections of the natural gas piping components supplying natural gas to GEU-1;
 - (B) An installed leak detection system to include audible alarms to identify SF₆ leakage from the circuit breakers;
 - (C) Inspection for SF₆ emissions from the insulated electrical equipment on at least a monthly basis.
- c. Record Keeping Requirements* [P144-0023 and 144-0024]
- i. The Permittee shall calculate and record the monthly and consecutive 12 month CO₂e emissions in units of tons for all fuels combusted.
 - ii. The Permittee shall keep records of the electrical output of the plant (net) and the heat rate for the turbines while firing natural gas (HHV, net plant) without duct firing, on a 12-month rolling average for the plant.
 - iii. The Permittee shall make and keep monthly records of CO₂e emissions with the following methodologies:
 - (A) CO₂ emissions from GEU-1, shall be determined by the methodology found in 40 CFR Part 75, Appendix G, Equation G-4.
 - (B) CO₂ emissions from EU-3, EU-4, and EU-5, shall be determined using the default emissions factors found in 40 CFR Part 98, Subpart C, Table C-1.
 - (C) Methane (CH₄) and nitrous oxide (N₂O) for all combustion sources shall be determined using the default emissions factors found in 40 CFR Part 98, Subpart C, Table C-2.
 - (D) Estimated fugitive emissions of sulfur hexafluoride (SF₆) from the electrical circuit breakers shall be determined using mass balance.
 - (E) Estimated fugitive emissions of CH₄ from the natural gas pipeline and associated components shall be determined using default emissions factors found in 40 CFR Part 98, Subpart W, Table W-7.
 - iv. The Permittee shall keep records of the inspection, maintenance, preventive and corrective measures for minimizing GHG emissions from the natural gas pipeline components and the insulated electrical equipment. The records shall include:
 - (A) the name of the person conducting the inspection/maintenance;
 - (B) the date of the inspection/maintenance;
 - (C) the results or action taken;
 - (D) the leak detection methods used; and
 - (E) the amount of SF₆ added (if any) to the electrical equipment.
 - v. The Permittee shall keep monthly records of the audible alarms from the SF₆ leak detection system and inspections for the insulated electrical equipment. The records shall include:
 - (A) the name of the person conducting the inspection/maintenance;

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- (B) the date of the inspection/maintenance; and
- (C) the results or actions taken.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

9. General Operating Limitations/Special Requirements

a. Limitation or Restriction [P144-0023 and 144-0024]

- i. The Permittee shall not operate the auxiliary boiler (EU-3) simultaneously with GEU-1 for more than 500 hours in any calendar year.
- ii. The Permittee shall immediately institute a shutdown of a unit in GEU-1 in the event where emissions are in excess of a limit in Sections III.A.2. and A.3. of this Title V permit that cannot be corrected within three hours of when the emissions exceedance was identified.
- iii. The Permittee shall operate and maintain each unit in GEU-1 in a manner consistent with good air pollution control practices for minimizing emissions at all times including transient operation.
- iv. The Permittee shall operate and maintain each unit in GEU-1 in accordance with the manufacturer's specifications and written recommendations.
- v. The Permittee shall possess, at least 235 tons of external emissions reductions to offset the quantity of NO_x emitted from the sources covered under the following Permit Numbers to comply with RCSA §22a-174-3a(l):
 - (A) EU-1: 144-0023 [General Electric 7HA.01 combustion turbine/duct burner]
 - (B) EU-2: 144-0024 [General Electric 7HA.01 combustion turbine/duct burner]
 - (C) EU-3: 144-0025 [92.4 MMBtu/hr natural gas fired auxiliary boiler]
 - (D) EU-4: 144-0026 [1,500 kW ULSD fired emergency generator]
 - (E) EU-5: 144-0027 [350 bhp ULSD fired emergency fire pump]
 - (F) Such a quantity is sufficient to offset the emissions from the sources listed in Sections III.A.9.vi.(A) through (E) of this Title V permit at a ratio of 1.2 to 1 tons of reduction for every ton of NO_x emissions allowed under the permits listed. Specifically the reductions are real, quantifiable, surplus, permanent, and enforceable as defined in RCSA §22a-174-3a(l)(5). The Permittee shall maintain sole ownership and possession of these emissions reductions for the duration of this Title V permit and any subsequent changes to such permit.

Such offsets have been obtained from the following sources:

- (1) 106 tons from Consolidated Edison Company of New York:
NY-NY-DEC-2-6301-00006-106
- (2) 110 tons from Akeida Capital Management LLC:
CT4NOX00-015-0045-7888-110
- (3) 19 tons from Sikorsky Aircraft Corporation:
CTNOX1011-178-0039-19

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- (4) The Permittee may be required to obtain additional NO_x offsets and complete additional air quality analysis to show that the NAAQS and PSD increments have not been violated, if observed steady state or transient emissions exceed a limit specified in Section III.A.2.a. of this Title V permit.
- vi. The Permittee shall prepare and submit a written standby plan in accordance with the RCSA §§22a-174-6(d)(2) through (d)(5).

b. Monitoring Requirements

Record keeping specified in Section III.A.9.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

c. Record Keeping Requirements [P144-0023 and 144-0024]

- i. The Permittee shall make and keep records of each hour of co-firing of GEU-1 and EU-3 for each month and consecutive 12 months.
- ii. The Permittee shall keep records of all repairs/replacement of parts and other maintenance activities for each unit in GEU-1.
- iii. The Permittee shall keep records of the manufacturer written recommendations for operation and maintenance of each unit in GEU-1.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

10. NSPS: 40 CFR Part 60 Subpart KKKK

The Permittee shall comply with the New Source Performance Standard for Stationary Gas Turbines and 40 CFR Part 60 Subpart A at all times.

a. Limitation or Restriction

- i. The Permittee shall comply with the NO_x emission limits for each unit in GEU-1 in accordance with 40 CFR §60.4320.
- ii. The Permittee shall comply with the SO₂ emission limit for each unit in GEU-1 in accordance with 40 CFR §60.4330(a)(2).
- iii. The Permittee must operate and maintain the combustion turbines, air pollution control equipment, and monitoring equipment for each unit in GEU-1 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)]

b. Monitoring Requirements

- i. For each unit in GEU-1:
 - (A) The Permittee shall install, certify, maintain, and operate a continuous emission monitoring system (CEMS) in accordance with 60.4340(b).
 - (B) The Permittee shall comply with the monitoring requirements found in 40 CFR §60.4345.
 - (C) The Permittee shall determine excess NO_x emissions in accordance with the applicable requirements found in 40 CFR §60.4350.

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- (D) The Permittee shall comply with the monitoring requirements for SO₂ found in 40 CFR §60.4360 in accordance with 40 CFR §60.4365(a).
- (E) The Permittee shall comply with the applicable performance testing for NO_x and SO₂ emissions in accordance with 40 CFR §§60.4400, 60.4405, and 60.4415.

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.10.a of this Title V permit.

[RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

- i. The Permittee shall comply with the applicable reporting requirements in accordance with 40 CFR §60.4375.
- ii. The Permittee shall comply with the reporting requirements, for the purposes of reports required under 40 CFR §60.7(c), for periods of excess emissions and monitor downtime in accordance with 40 CFR §60.4380(b).
- iii. All reports required under 40 CFR §60.7(c) must be postmarked by the 30th day following the end of each 6-month period.

[40 CFR §60.4395]

11. NSPS: 40 CFR Part 60 Subpart TTTT

The Permittee shall comply with the New Source Performance Standard for Greenhouse Gas Emissions for Electric Generating Units and 40 CFR Part 60 Subpart A at all times.

a. Limitation or Restriction

- i. The Permittee shall not discharge from any unit in GEU-1 any gases that contain CO₂ in excess of 1,000 lb CO₂/MWh, gross energy output.
[40 CFR §§60.5520(a) and 60.5520(b), & Table 2]
- ii. The Permittee shall comply with the compliance requirements found in 40 CFR §60.5525(a).
- iii. The Permittee, at all times must operate and maintain each unit in GEU-1, including associated equipment and monitors, in a manner consistent with safety and good air pollution control practice in accordance with 40 CFR §60.5525(b).
- iv. The Permittee shall demonstrate CO₂ emissions compliance and determination of excess emissions in accordance with the applicable requirements found in 40 CFR §60.5540.
- v. The Permittee shall comply with the compliance requirements found in 40 CFR §60.5525(c).

b. Monitoring Requirements

- i. The Permittee shall comply with the monitoring requirements found in 40 CFR §§60.5535(c)(1) through (c)(4).
- ii. The Permittee shall comply with the gross energy monitoring requirements in accordance with 40 CFR §60.5535(d).
- iii. The Permittee shall comply with applicable gross energy output requirements pursuant to 40 CFR §60.5535(e).

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c. Record Keeping Requirements

The Permittee shall keep records in accordance with 40 CFR §§60.5560 and 60.5565.

d. Reporting Requirements

- i. The Permittee shall prepare and submit notifications in accordance with 40 CFR §§60.5550(a) and 60.5550(b).
- ii. The Permittee shall prepare and submit applicable records in accordance with 40 CFR §60.5555.

B. EMISSIONS UNIT 3 (EU-3): 92.4 MMBtu/hr Natural Gas Fired CB Nebraska Boiler Model Number NB-300D-70

Subject to: Permit No. 144-0025; 40 CFR Part 60 Subparts Dc, and A; RCSA §§22a-174-18, 22e, 29

1. Allowable Fuel Usage and Operating Limitations

a. Limitation or Restriction [P144-0025]

- i. Natural gas shall be the only fuel combusted in EU-3
- ii. Maximum Fuel Firing Rate (cf/hr): 89,900
- iii. Maximum Fuel Consumption over any Consecutive 12 Month Period (MMft³): 359.6
- iv. Maximum Gross Heat Input (MMBtu/hr): 92.4
- v. Maximum Steam Flow (lb/hr) @ 387 °F and 200 psig: 77,000
- vi. The Permittee shall not operate EU-3 with either of the combustion turbines, GEU-1, for 500 hours or more in any calendar year.
- vii. The Permittee shall operate and maintain EU-3 in accordance with the manufacturer's specifications and written recommendations.
- viii. The Permittee shall properly operate the flue gas recirculation (FGR) system at all times that this equipment is in operation and emitting air pollutants.

b. Monitoring Requirements [P144-0025]

- i. The Permittee shall continuously monitor EU-3 fuel consumption using a non-resettable totalizing fuel meter.
- ii. The Permittee shall perform inspections of the burners and flue gas recirculation (FGR) system as recommended by the manufacturer.
- iii. The Permittee shall monitor all hours of simultaneous operation of EU-3 and GEU-1.

c. Record Keeping Requirements [P144-0025]

- i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
- ii. The Permittee shall make and keep records of all maintenance and tune-up activities for EU-3.
- iii. The Permittee shall make and keep records of all inspections of the burners and FGR system.

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- iv. The Permittee shall make and keep records of all hours of simultaneous operation of this unit with GEU-1. The Permittee shall total these hours for each month and for the calendar year. The Permittee shall make these calculations within 30 days of the end of the previous month.
- v. The Permittee shall make and keep records of manufacturer written specifications and recommendations for operation and maintenance.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. Pollutant Emissions

a. Limitation or Restriction [P144-0025]

- i. The Permittee shall not cause or allow EU-3 to exceed the following emission limits at any time (lb/hr)
 - (A) PM₁₀: 0.65
 - (B) PM_{2.5}: 0.65
 - (C) SO₂: 0.14
 - (D) NO_x: 0.79
 - (1) 7 ppmvd @ 3% O₂
 - (2) Until May 31, 2023 [RCSA §22a-174-22e(d)(3)(A)]
 - (a) 0.20 lb/MMBtu, daily block average
 - (3) On and After June 1, 2023 [RCSA §22a-174-22e(d)(3)(C)]
 - (a) 0.05 lb/MMBtu, daily block average
 - (E) VOC: 0.38
 - (F) CO: 3.42
 - (1) 50 ppmvd @ 3% O₂
 - (G) Pb: 4.5e-05
 - (H) H₂SO₄: 0.011
 - (I) CO_{2e}: 117 lb/MMBtu
- ii. The Permittee shall not exceed the following annual emission limits (tpy)
 - (A) PM₁₀: 1.29
 - (B) PM_{2.5}: 1.29
 - (C) SO₂: 0.28
 - (D) NO_x: 1.6
 - (E) VOC: 0.75
 - (F) CO: 6.83
 - (G) Pb: 9.1E-05

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(H) H₂SO₄: 0.02

(I) CO_{2e}: 21,627

b. Monitoring and Testing Requirements [P144-0025]

i. Recurrent stack testing shall be required for the following pollutants within five years from the date of the previous stack test:

(A) NO_x, CO, VOC,

ii. The Permittee shall calculate the emissions from the following sources:

(A) NO_x, CO, VOC: Stack test Data

(B) PM₁₀: Guaranteed Vendor Emissions Factor

(C) SO₂, H₂SO₄: Calculated from fuel sulfur content not exceeding 0.5 grains of Sulfur/100 dscf

(D) Pb: AP-42, Table 1.4-2

(E) CO_{2e}: 40 CFR Part 98, Tables A-1, C-1, and C-2

iii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits in Part III.B.2.a of this Title V permit, as allowed by state or federal statute, law or regulation.

c. Record Keeping Requirements [P144-0025]

The Permittee shall calculate and record the monthly and consecutive 12 month PM, PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, CO, and CO_{2e} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.

d. Reporting Requirements [P144-0025]

i. The Permittee shall comply with the applicable reporting requirements of RCSA §22a-174-22e(k).

ii. The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. Opacity

a. Limitation or Restriction [P144-0025]

EU-3 shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

b. Monitoring and Testing Requirements [P144-0025]

Recurrent stack testing shall be required within five years from the date of the previous stack test.

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.3.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

Section III: Applicable Requirements and Compliance Demonstration

4. Hazardous Air Pollutants

a. Limitation or Restriction [P144-0025]

EU-3 shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29.

[STATE ONLY REQUIREMENT]

b. Monitoring Requirements

Record keeping specified in Section III.B.4.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.4.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. New Source Performance Standards (NSPS) for 40 CFR Part 60 Subparts Dc, and A Requirements

a. Limitation or Restriction

The Permittee shall comply with the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units and 40 CFR Part 60 Subpart A at all times.

b. Monitoring Requirements

Record keeping specified in Section III.B.5.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall make and keep records in accordance with 40 CFR §60.48c(g)(3).

d. Reporting Requirements

The Permittee shall comply with the applicable notification requirements in accordance with 40 CFR §60.48c(a).

C. GROUPED EMISSIONS UNIT 2 (GEU-2): EU-4: Caterpillar 3512C-4 4-Stroke Lean Burn, 1500 kW ULSD fired Emergency Engine, Permit No. 144-0022 and EU-5: 350 bhp 4-Stroke Lean Burn John Deere ULSD fired Fire Pump Engine and EU-5: 350 bhp 4-Stroke Lean Burn John Deere ULSD fired Fire Pump Engine

Subject to: Permit Nos. 144-0027 and 144-0028; 40 CFR Part 60 Subparts III, and A; RCSA §§22a-174-18, 22e, 29

1. Allowable Fuel Usage and Operating Limitations

a. Limitation or Restriction [P144-0026, P144-0027]

i. Ultra Low Sulfur Distillate shall be the only fuel combusted in GEU-2.

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- ii. Maximum Fuel Firing Rate (gal/hr):
 - (A) EU-4: 104.6
 - (B) EU-5: 17.8
 - iii. Maximum Fuel Consumption over any Consecutive 12 Month Period (gal):
 - (A) EU-4: 19,664
 - (B) EU-5: 5,330
 - iv. Maximum Gross Heat Input (MMBtu/hr):
 - (A) EU-4: 14.4
 - (B) EU-5: 2.45
 - v. Maximum Sulfur Content (% by weight): 0.0015
 - vi. The Permittee may operate GEU-2 up to (hours per calendar year):
 - (A) EU-4: 188
 - (B) EU-5: 300
 - vii. The Permittee shall operate and maintain GEU-2 in accordance with the manufacturer's specifications and written recommendations.
 - viii. The Permittee shall operate and maintain GEU-2 and any monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown, and malfunction.
 - ix. The Permittee shall only operate GEU-2 in accordance with the definition of emergency engine as defined in RCSA §22a-174-22e.
 - x. The Permittee shall not operate GEU-2 for routine scheduled testing or maintenance during days when the ambient ozone is forecasted by the commissioner to be "moderate unhealthy for sensitive groups" to "very unhealthy" anywhere in Connecticut.
- b. *Monitoring Requirements* [P144-0026, P144-0027]
- i. The Permittee shall continuously monitor GEU-2 fuel consumption using a non-resettable totalizing fuel meter.
 - ii. The Permittee shall monitor all hours that any unit in GEU-2 is in operation.
- c. *Record Keeping Requirements* [P144-0026, P144-0027]
- i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for each unit in GEU-2. The consecutive 12 month fuel consumption shall be determined by adding the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month.
 - ii. The Permittee shall keep records of the fuel certification for each delivery of fuel oil from a bulk petroleum provider or a copy of the current contract with the fuel supplier supplying the fuel used by the equipment that includes the applicable sulfur content of the fuel as a condition of each shipment. The shipping receipt or contract shall include the date of delivery, the name of the fuel supplier, type of fuel delivered, the percentage of sulfur in such fuel, by weight, dry basis, and the method used to determine the sulfur content of such fuel.
 - iii. The Permittee shall keep monthly and calendar year records of all hours of operation and fuel use for each unit in GEU-2. Such records shall contain the following information:

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- (A) reason for operating;
 - (B) date of the event;
 - (C) duration of event (minutes);
 - (D) gallons of fuel combusted;
 - (E) ozone level as forecasted for the day;
 - (F) total engine hours of operation (each) and total combined engine hours of operation for GEU-2, combined
- iv. The Permittee shall make and keep records of the inspection and maintenance for each unit in GEU-2. The records shall include:
- (A) the name of the person conducting the inspection or maintenance;
 - (B) the date of the inspection or maintenance;
 - (C) the results or actions taken.
- v. The Permittee shall keep records of the manufacturer's written specifications and written recommendations.

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

2. Pollutant Emissions

a. Limitation or Restriction

- i. The Permittee shall not cause or allow EU-4 to exceed the following emission limits at any time (lb/hr)

[P144-0026]

- (A) PM: 0.22
- (B) PM_{10/2.5}: 0.22
- (C) SO₂: 0.02
- (D) NO_x: 31.67
- (E) VOC: 0.84
- (F) CO: 4.17
- (G) Pb: 1.1E-05
- (H) H₂SO₄: 1.66E-03
- (I) CO₂: 163.6 lb/MMBtu

- ii. The Permittee shall not exceed the following annual emission limits for EU-4 (tpy):

[P144-0026]

- (A) PM₁₀: 0.02
- (B) PM_{2.5}: 0.02

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- (C) SO₂: 0.002
- (D) NO_x: 2.98
- (E) VOC: 0.08
- (F) CO: 0.39
- (G) Pb: 1.1E-06
- (H) H₂SO₄: 1.6E-04
- (I) CO_{2e}: 222

iii. The Permittee shall not cause or allow EU-5 to exceed the following emission limits at any time (lb/hr) [P144-0027]

- (A) PM: 0.1
- (B) PM_{10/2.5}: 0.1
- (C) SO₂: 0.0037
- (D) NO_x: 2.65
- (E) VOC: 0.07
- (F) CO: 0.64
- (G) Pb: 1.9E-06
- (H) H₂SO₄: 2.8E-04
- (I) CO₂: 163.6 lb/MMBtu

iv. The Permittee shall not exceed the following annual emission limits for EU-5 (tpy) [P144-0027]

- (A) PM₁₀: 0.014
- (B) PM_{2.5}: 0.014
- (C) SO₂: 6E-04
- (D) NO_x: 0.4
- (E) VOC: 0.01
- (F) CO: 0.09
- (G) Pb: 2.8E-07
- (H) H₂SO₄: 4E-05
- (I) CO_{2e}: 60

b. Monitoring and Testing Requirements [P144-0026, P144-0027]

i. The Permittee shall calculate the emissions from the following sources:

- (A) SO₂, H₂SO₄: Calculated from fuel sulfur content
- (B) NO_x, PM_{10/2.5}, VOC, CO: EPA Certified Emissions Factor
- (C) Pb: AP-42, Table 3.1
- (D) CO₂: 40 CFR Part 98, Table C-1
- (E) CO_{2e}: 40 CFR Part 98, Table A-1, Table C-2

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(F) The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the emission limits in Part III.C.2.a of this Title V permit, as allowed by state or federal statute, law or regulation.

c. Record Keeping Requirements [P144-0026, P144-0027]

- i. The Permittee shall calculate and record, for each unit in GEU-2, the monthly and consecutive 12 month PM, PM₁₀, PM_{2.5}, SO₂, NO_x, VOC, CO, and CO_{2e} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding (for each pollutant) the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation for each pollutant. The Permittee shall make these calculations within 30 days of the end of the previous month.
- ii. The Permittee comply with the applicable record keeping requirements in accordance with RCSA §22a-174-22e(j)(2).

d. Reporting Requirements [P144-0026, P144-0027]

- i. If requested, the Permittee shall comply the reporting requirements of RCSA §22a-174-22e(k)(4).
- ii. The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

3. Opacity

a. Limitation or Restriction [P144-0026, P144-0027]

GEU-2 shall not exceed 10% opacity during any six minute block average or 40% reduced to a one-minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9.

b. Monitoring and Testing Requirements

Record keeping specified in Section III.C.3.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.C.3.a. of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

4. Hazardous Air Pollutants

a. Limitation or Restriction [P144-0026, P144-0027]

GEU-2 shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any hazardous air pollutant (HAP) emitted and listed in RCSA §22a-174-29.

[STATE ONLY REQUIREMENT]

b. Monitoring Requirements

Record keeping specified in Section III.C.4.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

Section III: Applicable Requirements and Compliance Demonstration

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.C.4.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier. [RCSA §22a-174-33(j)(1)(X)]

5. New Source Performance Standards (NSPS) for 40 CFR Part 60 Subparts IIII and A Requirements

a. Limitation or Restriction

- i. The Permittee shall comply with the New Source Performance Standard for Stationary Ignition Internal Combustion Engines and 40 CFR Part 60 Subpart A at all times.
- ii. The Permittee shall comply with the emission standards specified in 40 CFR §60.4205(b). The Permittee must comply by purchasing an engine certified to the emission standards in 40 CFR §60.4205(b), for the same model year and maximum engine power. The engine must be installed and configured according to manufacturer's emission-related specifications. [40 CFR §60.4211(c)]
 - (A) The Permittee shall not cause or allow EU-4 to exceed the following emissions limitations pursuant to the engine manufacturer's certification. [40 CFR §60.4202(a)]
 - (1) NMHC + NOx: 6.4 g/kw-hr (3.0 g/hp-hr)
 - (2) CO: 3.5 g/kw-hr (2.6 g/hp-hr)
 - (3) PM: 0.2 g/kw-hr (0.15 g/hp-hr)
 - (B) The Permittee shall not cause or allow EU-5 to exceed the following emissions limitations pursuant to the engine manufacturer's certification. [40 CFR §60.4202(a)]
 - (1) NMHC + NOx: 4.0 g/kw-hr (3.0 g/hp-hr)
 - (2) CO: 3.5 g/kw-hr (2.6 g/hp-hr)
 - (3) PM: 0.2 g/kw-hr (0.15 g/hp-hr)
- iii. The Permittee shall comply with the applicable compliance requirements in accordance with 40 CFR §§60.4211(a):
 - (A) Operate and maintain the GEU-2 according to the manufacturer's emission-related written instructions. [40 CFR §60.4211(a)(1)]
 - (B) Change only those emission-related settings that are permitted by the manufacturer.
[40 CFR §60.4211(a)(2)]
 - (C) The Permittee shall meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as applicable
[40 CFR §60.4211(a)(3)]

b. Monitoring Requirements

Record keeping specified in Section III.C.5.c. of this Title V permit shall be sufficient to meet other Monitoring Requirements pursuant to RCSA §22a-174-33.

[RCSA §22a-174-33(j)(1)(K)(ii)]

Section III: Applicable Requirements and Compliance Demonstration

c. Record Keeping Requirements

The Permittee shall comply with the applicable record keeping requirements found in 40 CFR §60.4214.

d. Record Keeping Requirements

The Permittee shall comply with the applicable reporting requirements found in 40 CFR §60.4214.

D. PREMISES-WIDE GENERAL REQUIREMENTS

1. **Annual Emission Statements:** The Permittee shall submit annual emission statements requested by the commissioner as set forth in RCSA §22a-174-4(d)(1).
2. **Emission Testing:** The Permittee shall comply with the procedures for sampling, emission testing, sample analysis, and reporting as set forth in RCSA §22a-174-5.
3. **Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
4. **Reporting of Malfunctioning Control Equipment:** The Permittee shall comply with the reporting requirements of malfunctioning control equipment as set forth in RCSA §22a-174-7.
5. **Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
6. **Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
7. **Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
8. **Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
9. **Variations:** The Permittee may apply to the commissioner for a variance from one or more of the provisions of these regulations as set forth in RCSA §22a-174-13.
10. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
11. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
12. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
13. **Particulate Emissions:** The Permittee shall comply with the standards for control of particulate matter and visible emissions as set forth in RCSA §22a-174-18.
14. **Fuel Sulfur Content:** The Permittee shall not use No. 2 heating oil that exceeds fifteen parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(B) .

Section III: Applicable Requirements and Compliance Demonstration

15. **Sulfur Dioxide Emissions:** The Permittee shall comply with the requirements for Control of Sulfur Dioxide Emissions from Power Plants and other large stationary sources of air pollution as set forth in RCSA §22a-174-19a.
16. **Sulfur Compound Emissions:** The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §§22a-174-19, 22a-174-19a and 22a-174-19b, as applicable.
17. **Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
18. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22e.
19. **Ambient Air Quality:** The Permittee shall not cause or contribute to a violation of an ambient air quality standard as set forth in RCSA §22a-174-24(b).
20. **Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
21. **Asbestos:** Should the premises, as defined in 40 CFR §61.145, become subject to the national emission standard for asbestos regulations in 40 CFR Part 61 Subpart M when conducting any renovation or demolition at this premises, then the Permittee shall submit proper notification as described in 40 CFR §61.145(b) and shall comply with all other applicable requirements of 40 CFR Part 61 Subpart M.
22. **Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

Section IV: Compliance Schedule

TABLE IV: COMPLIANCE SCHEDULE				
Emissions Unit	Applicable Regulations	Steps Required for Achieving Compliance (Milestones)	Date by which Each Step is to be Completed	Dates for Monitoring, Record Keeping, and Reporting
		No Steps are required for achieving compliance at this time		

Section V: State Enforceable Terms and Conditions

Only the Commissioner of the Department of Energy and Environmental Protection has the authority to enforce the terms, conditions and limitations contained in this section.

SECTION V: STATE ENFORCEABLE TERMS AND CONDITIONS

- A.** This Title V permit does not relieve the Permittee of the responsibility to conduct, maintain and operate the emissions units in compliance with all applicable requirements of any other Bureau of the Department of Energy and Environmental Protection or any federal, local or other state agency. Nothing in this Title V permit shall relieve the Permittee of other obligations under applicable federal, state and local law.
- B.** Nothing in this Title V permit shall affect the commissioner's authority to institute any proceeding or take any other action to prevent or abate violations of law, prevent or abate pollution, investigate air pollution, recover costs and natural resource damages, and to impose penalties for violations of law, including but not limited to violations of this or any other permit issued to the Permittee by the commissioner.
- C.** Additional Emissions Units
- 1.** The Permittee shall make and submit a written record, at the commissioner's request, within 30 days of receipt of notice from the commissioner, or by such other date specified by the commissioner, of each additional emissions unit or group of similar or identical emissions units at the premises.
 - 2.** Such record of additional emissions units shall include each emissions unit, or group of emissions units, at the premises which is not listed in Section II.A of this Title V permit, unless the emissions unit, or group of emissions units, is:
 - a. an insignificant emissions unit as defined in RCSA §22a-174-33; or
 - b. an emissions unit or activity listed in *White Paper for Streamlined Development of Part 70 Permit Applications, Attachment A* (EPA guidance memorandum dated July 10, 1995).
 - 3.** For each emissions unit, or group of emissions units, on such record, the record shall include, as available:
 - a. Description, including make and model;
 - b. Year of construction/installation or if a group, range of years of construction/installation;
 - c. Maximum throughput or capacity; and
 - d. Fuel type, if applicable.
- D.** Odors: The Permittee shall not cause or permit the emission of any substance or combination of substances which creates or contributes to an odor that constitutes a nuisance beyond the property boundary of the premises as set forth in RCSA §22a-174-23.
- E.** Noise: The Permittee shall operate in compliance with the regulations for the control of noise as set forth in RCSA §§22a-69-1 through 22a-69-7.4, inclusive.

Section V: State Enforceable Terms and Conditions

- F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.
- G.** The Permittee shall comply with the requirements for Control of Carbon Dioxide Emissions as set forth in RCSA §22a-174-31.
- H.** The Permittee shall comply with the requirements for Architectural and Industrial Maintenance Coatings as set forth in RCSA §22a-174-41.
- I.** The Permittee shall comply with the requirements for Adhesives and Sealants as set forth in RCSA §22a-174-44.

Section VI: Title V Requirements

The Administrator of the United States Environmental Protection Agency and the Commissioner of the Department of Energy and Environmental Protection have the authority to enforce the terms and conditions contained in this section.

SECTION VI: TITLE V REQUIREMENTS

A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

The date of submission to the commissioner of any document required by this Title V permit shall be the date such document is received by the commissioner. The date of any notice by the commissioner under this Title V permit, including, but not limited to notice of approval or disapproval of any document or other action, shall be the date such notice is delivered or the date three days after it is mailed by the commissioner, whichever is earlier. Except as otherwise specified in this Title V permit, the word "day" means calendar day. Any document or action which is required by this Title V permit to be submitted or performed by a date which falls on a Saturday, Sunday or legal holiday shall be submitted or performed by the next business day thereafter.

Any document required to be submitted to the commissioner under this Title V permit shall, unless otherwise specified in writing by the commissioner, be directed to: Office of the Director; Engineering & Enforcement Division; Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127.

Any submittal to the Administrator of the Environmental Protection Agency shall be in a computer-readable format and addressed to: U.S. EPA New England, 5 Post Office Square, Suite 100 (OES04-2), Boston, Massachusetts 02109, Attn: Air Clerk.

B. CERTIFICATIONS [RCSA §22a-174-33(b)]

In accordance with RCSA §22a-174-33(b), any report or other document required by this Title V permit and any other information submitted to the commissioner or Administrator shall be signed by an individual described in RCSA §22a-174-2a(a), or by a duly authorized representative of such individual. Any individual signing any document pursuant to RCSA §22a-174-33(b) shall examine and be familiar with the information submitted in the document and all attachments thereto, and shall make inquiry of those individuals responsible for obtaining the information to determine that the information is true, accurate, and complete, and shall also sign the following certification as provided in RCSA §22a-174-2a(a)(4):

“I have personally examined and am familiar with the information submitted in this document and all attachments thereto, and I certify that based on reasonable investigation, including my inquiry of those individuals responsible for obtaining the information, the submitted information is true, accurate and complete to the best of my knowledge and belief. I understand that any false statement made in the submitted information may be punishable as a criminal offense under Section 22a-175 of the Connecticut General Statutes, under Section 53a-157b of the Connecticut General Statutes, and in accordance with any applicable statute.”

C. SIGNATORY RESPONSIBILITY [RCSA §22a-174-2a(a)]

For purposes of signing any Title V-related application, document, report or certification required by RCSA §22a-174-33, any corporation's duly authorized representative may be either a named individual or any individual occupying a named position. Such named individual or individual occupying a named position is a duly authorized representative if such individual is responsible for the overall operation of one or more manufacturing, production or operating facilities subject to RCSA §22a-174-33 and either:

Section VI: Title V Requirements

1. The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding 25 million dollars in second quarter 1980 dollars; or
2. The delegation of authority to the duly authorized representative has been given in writing by an officer of the corporation in accordance with corporate procedures and the following:
 - i. Such written authorization specifically authorizes a named individual, or a named position, having responsibility for the overall operation of the Title V premises or activity,
 - ii. Such written authorization is submitted to the commissioner and has been approved by the commissioner in advance of such delegation. Such approval does not constitute approval of corporate procedures, and
 - iii. If a duly authorized representative is a named individual in an authorization submitted under subclause ii. of this subparagraph and a different individual is assigned or has assumed the responsibilities of the duly authorized representative, or, if a duly authorized representative is a named position in an authorization submitted under subclause ii. of this subparagraph and a different named position is assigned or has assumed the duties of the duly authorized representative, a new written authorization shall be submitted to the commissioner prior to or together with the submission of any application, document, report or certification signed by such representative.

D. ADDITIONAL INFORMATION [RCSA §22a-174-33(j)(1)(X), RCSA §22a-174-33(h)(2)]

The Permittee shall submit additional information in writing, at the commissioner's request, within 30 days of receipt of notice from the commissioner or by such other date specified by the commissioner, whichever is earlier, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, or suspending this Title V permit or to determine compliance with this Title V permit.

In addition, the Permittee shall submit information to address any requirements that become applicable to the subject source and shall submit correct, complete, and sufficient information within 15 days of the applicant's becoming aware of any incorrect, incomplete, or insufficient submittal, during the pendency of the application, or any time thereafter, with an explanation for such deficiency and a certification pursuant to RCSA §22a-174-2a(a)(5).

E. MONITORING REPORTS [RCSA §22a-174-33(o)(1)]

A Permittee, required to perform monitoring pursuant to this Title V permit, shall submit to the commissioner, on forms prescribed by the commissioner, written monitoring reports on March 1 and September 1 of each year or on a more frequent schedule if specified in such permit. Such monitoring reports shall include the date and description of each deviation from a permit requirement including, but not limited to:

1. Each deviation caused by upset or control equipment deficiencies; and
2. Each deviation of a permit requirement that has been monitored by the monitoring systems required under this Title V permit, which has occurred since the date of the last monitoring report; and
3. Each deviation caused by a failure of the monitoring system to provide reliable data.

Section VI: Title V Requirements

F. PREMISES RECORDS [RCSA §22a-174-33(o)(2)]

Unless otherwise required by this Title V permit, the Permittee shall make and keep records of all required monitoring data and supporting information for at least five years from the date such data and information were obtained. The Permittee shall make such records available for inspection at the site of the subject source, and shall submit such records to the commissioner upon request. The following information, in addition to required monitoring data, shall be recorded for each permitted source:

1. The type of monitoring or records used to obtain such data, including record keeping;
2. The date, place, and time of sampling or measurement;
3. The name of the individual who performed the sampling or the measurement and the name of such individual's employer;
4. The date(s) on which analyses of such samples or measurements were performed;
5. The name and address of the entity that performed the analyses;
6. The analytical techniques or methods used for such analyses;
7. The results of such analyses;
8. The operating conditions at the subject source at the time of such sampling or measurement; and
9. All calibration and maintenance records relating to the instrumentation used in such sampling or measurements, all original strip-chart recordings or computer printouts generated by continuous monitoring instrumentation, and copies of all reports required by the subject permit.

G. PROGRESS REPORTS [RCSA §22a-174-33(q)(1)]

The Permittee shall, on March 1 and September 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a progress report on forms prescribed by the commissioner, and certified in accordance with RCSA §22a-174-2a(a)(5). Such report shall describe the Permittee's progress in achieving compliance under the compliance plan schedule contained in this Title V permit. Such progress report shall:

1. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has met, and the dates on which they were met; and
2. Identify those obligations under the compliance plan schedule in this Title V permit which the Permittee has not timely met, explain why they were not timely met, describe all measures taken or to be taken to meet them and identify the date by which the Permittee expects to meet them.

Any progress report prepared and submitted pursuant to RCSA §22a-174-33(q)(1) shall be simultaneously submitted by the Permittee to the Administrator.

Section VI: Title V Requirements

H. COMPLIANCE CERTIFICATIONS [RCSA §22a-174-33(q)(2)]

The Permittee shall, on March 1 of each year, or on a more frequent schedule if specified in this Title V permit, submit to the commissioner a written compliance certification certified in accordance with RCSA §22a-174-2a(a)(5) and which includes the information identified in 40 CFR §§70.6(c)(5)(iii)(A) to (C), inclusive.

Any compliance certification prepared and submitted pursuant to RCSA §22a-174-33(q)(2) shall be simultaneously submitted by the Permittee to the Administrator.

I. PERMIT DEVIATION NOTIFICATIONS [RCSA §22a-174-33(p)]

Notwithstanding Section VI.E. of this Title V permit, the Permittee shall notify the commissioner in writing, on forms prescribed by the commissioner, of any deviation from an emissions limitation, and shall identify the cause or likely cause of such deviation, all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures as follows:

1. For any hazardous air pollutant, no later than 24 hours after such deviation commenced; and
2. For any other regulated air pollutant, no later than ten days after such deviation commenced.

J. PERMIT RENEWAL [RCSA §22a-174-33(j)(1)(B)]

All of the terms and conditions of this Title V permit shall remain in effect until the renewal permit is issued or denied provided that a timely renewal application is filed in accordance with RCSA §§22a-174-33(g), -33(h), and -33(i).

K. OPERATE IN COMPLIANCE [RCSA §22a-174-33(j)(1)(C)]

The Permittee shall operate the source in compliance with the terms of all applicable regulations, the terms of this Title V permit, and any other applicable provisions of law. In addition, any noncompliance constitutes a violation of the Clean Air Act and Chapter 446c of the Connecticut General Statutes and is grounds for federal and/or state enforcement action, permit termination, revocation and reissuance, or modification, and denial of a permit renewal application.

L. COMPLIANCE WITH PERMIT [RCSA §22a-174-33(j)(1)(G)]

This Title V permit shall not be deemed to:

1. Preclude the creation or use of emission reduction credits or allowances or the trading thereof in accordance with RCSA §§22a-174-33(j)(1)(I) and -33(j)(1)(P), provided that the commissioner's prior written approval of the creation, use, or trading is obtained;
2. Authorize emissions of an air pollutant so as to exceed levels prohibited pursuant to 40 CFR Part 72;
3. Authorize the use of allowances pursuant to 40 CFR Parts 72 through 78, inclusive, as a defense to noncompliance with any other applicable requirement; or
4. Impose limits on emissions from items or activities specified in RCSA §§22a-174-33(g)(3)(A) and -33(g)(3)(B) unless imposition of such limits is required by an applicable requirement.

Section VI: Title V Requirements

M. INSPECTION TO DETERMINE COMPLIANCE [RCSA §22a-174-33(j)(1)(M)]

The commissioner may, for the purpose of determining compliance with this Title V permit and other applicable requirements, enter the premises at reasonable times to inspect any facilities, equipment, practices, or operations regulated or required under such permit; to sample or otherwise monitor substances or parameters; and to review and copy relevant records lawfully required to be maintained at such premises in accordance with this Title V permit. It shall be grounds for permit revocation should entry, inspection, sampling, or monitoring be denied or effectively denied, or if access to and the copying of relevant records is denied or effectively denied.

N. PERMIT AVAILABILITY

The Permittee shall have available at the facility at all times a copy of this Title V permit.

O. SEVERABILITY CLAUSE [RCSA §22a-174-33(j)(1)(R)]

The provisions of this Title V permit are severable. If any provision of this Title V permit or the application of any provision of this Title V permit to any circumstance is held invalid, the remainder of this Title V permit and the application of such provision to other circumstances shall not be affected.

P. NEED TO HALT OR REDUCE ACTIVITY [RCSA §22a-174-33(j)(1)(T)]

It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Title V permit.

Q. PERMIT REQUIREMENTS [RCSA §22a-174-33(j)(1)(V)]

The filing of an application or of a notification of planned changes or anticipated noncompliance does not stay the Permittee's obligation to comply with this Title V permit.

R. PROPERTY RIGHTS [RCSA §22a-174-33(j)(1)(W)]

This Title V permit does not convey any property rights or any exclusive privileges. This Title V permit is subject to, and in no way derogates from any present or future property rights or other rights or powers of the State of Connecticut, and is further subject to any and all public and private rights and to any federal, state or local laws or regulations pertinent to the facility or regulated activity affected thereby, including CGS §4-181a(b) and RCSA §22a-3a-5(b). This Title V permit shall neither create nor affect any rights of persons who are not parties to this Title V permit.

S. ALTERNATIVE OPERATING SCENARIO RECORDS [RCSA §22a-174-33(o)(3)]

The Permittee shall, contemporaneously with making a change authorized by this Title V permit from one alternative operating scenario to another, maintain a record at the premises indicating when changes are made from one operating scenario to another and shall maintain a record of the current alternative operating scenario.

Section VI: Title V Requirements

T. OPERATIONAL FLEXIBILITY AND OFF-PERMIT CHANGES [RCSA §22a-174-33(r)(2)]

The Permittee may engage in any action allowed by the Administrator in accordance with 40 CFR §§70.4(b)(12)(i) to (iii)(B), inclusive, and 40 CFR §§70.4(b)(14)(i) to (iv), inclusive, without a Title V non-minor permit modification, minor permit modification or revision and without requesting a Title V non-minor permit modification, minor permit modification or revision provided such action does not:

1. Constitute a modification under 40 CFR Part 60, 61 or 63;
2. Exceed emissions allowable under the subject permit;
3. Constitute an action which would subject the Permittee to any standard or other requirement pursuant to 40 CFR Parts 72 to 78, inclusive; or
4. Constitute a non-minor permit modification pursuant to RCSA §22a-174-2a(d)(4).

At least seven days before initiating an action specified in RCSA §22a-174-33(r)(2)(A), the Permittee shall notify the Administrator and the commissioner in writing of such intended action.

U. INFORMATION FOR NOTIFICATION [RCSA §22a-174-33(r)(2)(A)]

Written notification required under RCSA §22a-174-33(r)(2)(A) shall include a description of each change to be made, the date on which such change will occur, any change in emissions that may occur as a result of such change, any Title V permit terms and conditions that may be affected by such change, and any applicable requirement that would apply as a result of such change. The Permittee shall thereafter maintain a copy of such notice with the Title V permit. The commissioner and the Permittee shall each attach a copy of such notice to their copy of the Title V permit.

V. TRANSFERS [RCSA §22a-174-2a(g)]

No person other than the Permittee shall act or refrain from acting under the authority of this Title V permit unless such permit has been transferred to another person in accordance with RCSA §22a-174-2a(g).

The proposed transferor and transferee of a permit shall submit to the commissioner a request for a permit transfer on a form provided by the commissioner. A request for a permit transfer shall be accompanied by any fees required by any applicable provision of the general statutes or regulations adopted thereunder. The commissioner may also require the proposed transferee to submit with any such request, the information identified in CGS §22a-6o.

W. REVOCATION [RCSA §22a-174-2a(h)]

The commissioner may revoke this Title V permit on his own initiative or on the request of the Permittee or any other person, in accordance with CGS §4-182(c), RCSA §22a-3a-5(d), and any other applicable law. Any such request shall be in writing and contain facts and reasons supporting the request. The Permittee requesting revocation of this Title V permit shall state the requested date of revocation and provide evidence satisfactory to the commissioner that the subject source is no longer a Title V source.

Pursuant to the Clean Air Act, the Administrator has the power to revoke this Title V permit. Pursuant to the Clean Air Act, the Administrator also has the power to reissue this Title V permit if the Administrator has determined that the commissioner failed to act in a timely manner on a permit renewal application.

Section VI: Title V Requirements

This Title V permit may be modified, revoked, reopened, reissued, or suspended by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(r), CGS §22a-174c, or RCSA §22a-3a-5(d).

X. REOPENING FOR CAUSE [RCSA §22a-174-33(s)]

This Title V permit may be reopened by the commissioner, or the Administrator in accordance with RCSA §22a-174-33(s).

Y. CREDIBLE EVIDENCE

Notwithstanding any other provision of this Title V permit, for the purpose of determining compliance or establishing whether a Permittee has violated or is in violation of any permit condition, nothing in this Title V permit shall preclude the use, including the exclusive use, of any credible evidence or information.