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	015-0217-TV
Client/Sequence/Town/Premises Numbers	8856/01/015/0045
Date Issued	August 15, 2023
Expiration Date	August 15, 2028

Corporation:

GB II Connecticut LLC

Premises Location:

Bridgeport Harbor Station, 2 Atlantic Street, Bridgeport, CT 06604

Name of Responsible Official and Title:

Arthur Mantell, Power Plant Manager – Bridgeport 5

All the following attached pages, 2 through 103, are hereby incorporated by reference into this Title V permit.

Paul E Farrell for

Katherine S. Dykes
Commissioner

August 15, 2023
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

Abbreviation/Acronym	*Description*
T_{ACT}	Actual Ambient Temperature
API	American Petroleum Institute
ASTM	American Society for Testing and Materials
NH_3	Ammonia
BHS	Bridgeport Harbor Station
Btu	British Thermal Units
CO_2	Carbon Dioxide
CO_{2e}	Carbon Dioxide Equivalent
CO	Carbon Monoxide
CDX	Central Data Exchange
CAIR	Clean Air Interstate Rule
CFR	Code of Federal Regulations
CT DEEP	Connecticut Department of Energy and Environmental Protection
CGS	Connecticut General Statutes
CAM	Compliance Assurance Monitoring
CEDRI	Compliance and Emission Data Reporting Interface
CI	Compression Ignition
CAMS	Consolidated Asset Management Services
CEM	Continuous Emission Monitor
CEMS	Continuous Emission Monitor System
COM	Continuous Opacity Monitoring
cyl	Cylinders
ºF	Degree Fahrenheit
DEEP	Department of Energy and Environmental Protection
ERC	Emission Reduction Credit
EU	Emissions Unit
EPA	Environmental Protection Agency
FGR	Flue Gas Recirculation
gal	Gallons
GPA	Gas Processors Association
GB II	GB II Connecticut LLC
g	Grams
GHG	Greenhouse Gas
GEU	Grouped Emission Unit
HAP	Hazardous Air Pollutant
Q	Heat Input
HRSG	Heat Recovery Stream Generator
HVAC	Heating Ventilating and Air Conditioning
HHV	Higher Heating Value
hp	Horsepower
hr	Hour
ISO	Independent System Operator
ISO NE	Independent System Operator New England
ICE	Internal Combustion Engine
J	Joule
kW	Kilowatt

LIST OF ABBREVIATIONS/ACRONYMS, continued

Abbreviation/Acronym	*Description*
Pb	Lead
l	Liters
MASC	Maximum Allowable Stack Concentration
MHIT	Maximum Heat Input at Ambient Temperature
MWh	Megawatt hour
CH_4	Methane
MMBtu	Million British Thermal Units
min	Minute
ng	Nanogram
NAAQS	National Air Ambient Quality Standards
NFPA	National Fire Protection Association
NSPS	New Source Performance Standard
NSR	New Source Review
NO_x	Nitrogen Oxides
N_2O	Nitrous Oxide
NMHC	Non-Methane Hydrocarbon
NERC	North American Electric Reliability Corporation
O & M	Operation and Maintenance
O_2	Oxygen
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 microns
$PM_{2.5}$	Particulate Matter less than 2.5 microns
ppm	Parts per million
ppmvd	Parts per million, volumetric basis dry
PS 2	Performance Specification 2
lb	Pound
PSD	Prevention of Significant Deterioration
QA	Quality Assurance
QC	Quality Control
RICE	Reciprocating Internal Combustion Engine
RATA	Relative Accuracy Test Audit
RCSA	Regulations of Connecticut State Agencies
SCR	Selective Catalytic Reduction
scf	Standard Cubic Feet
SIC	Standard Industrial Classification Code
SF_6	Sulfur Hexafluoride
H_2SO_4	Sulfuric Acid
SO_2	Sulfur Dioxide
T	Temperature
TPY	Tons per year
TDS	Total Dissolved Solids
ULSD	Ultra-Low Sulfur Distillate
VOC	Volatile Organic Compound

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business:	Electric Generation for Wholesale Sale
Primary SIC:	4911
Facility Mailing Address:	GB II Connecticut LLC 2 Atlantic Street Bridgeport, CT 06604
Telephone Number:	Mr. Arthur Mantell, 203-551-8955

B. PREMISES DESCRIPTION

The Bridgeport Harbor Station (BHS) is an exempt wholesale electric generating facility, owned by GB II Connecticut LLC with its principal place of business in Stamford, Connecticut. The facility is operated by Consolidated Asset Management Services (CAMS).

Electricity is generated at the facility through a various types of equipment as follows:

A combined cycle unit (Unit No. 5) that is a single combustion turbine generator exhausting to a single supplementary fired Heat Recovery Steam Generator (HRSG). Steam generation in the HRSG drives a single steam turbine generator. The combined cycle consists of the following:

> EU-50: General Electric Dual Fired Combustion Turbine that fires natural gas and ultra-low sulfur distillate (ULSD) fuel, a duct burner that fires natural gas and a HRSG. Emissions are controlled by dry low-NO_x combustors, water injection (when the turbine is firing ULSD), a selective catalytic reduction (SCR) system, and an oxidation catalyst system. The turbine has a Cummins emergency fire pump engine (EU-53) that fires diesel fuel. The emergency fire pump engine provides backup mechanical energy to the fire suppression system for the Unit No. 5 project. A SPX Auxiliary Cooling Tower (EU-54), fire pump engine and separate, small emission units (GEU-1) consisting of: building space heaters, makeup air heaters, and heating ventilating and air conditioning (HVAC) are ancillary pieces of equipment associated with it.
>
> EU-51: Victory Energy boiler that fires natural gas and is equipped with ultra-low NO_x burners and Flue Gas Recirculation (FGR). The boiler produces auxiliary steam to provide certain heating functions prior to and during startups in order to allow shorter startup time durations.
>
> EU-52: Caterpillar emergency generator that fires diesel fuel. The emergency generator provides emergency back-up power to the combined cycle unit. The emergency generator is not connected to the electrical grid.
>
> Additional support equipment includes several storage tanks.

GB II is a Title V source because actual NO_x, carbon monoxide (CO) and greenhouse gas (GHG) emissions exceed the major source thresholds. Also, GB II is a Title V source as defined in RCSA §§22a-174-33(a)(10)(A) and (B) (subject to 40 CFR Parts 60 and 63), RCSA §22a-174-33(a)(10)(C) (subject to 40 CFR Parts 72-78) and RCSA §22a-174-33(a)(10)(F) (location of one or more major sources). GB II is located in a severe ozone non-attainment area as defined in RCSA §22a-174-1(106).

Section I: Premises Information/Description

GB II is subject to the following:

40 CFR Part 60 Subpart Dc	Standards of Performance for Small Industrial, Commercial, Institutional Steam Generating Units
40 CFR Part 60 Subpart IIII	Standards of Performance for Stationary Spark Ignition Internal Combustion Engines
40 CFR Part 60 Subpart KKKK	Standards of Performance for Stationary Combustion Turbines
40 CFR Part 63 Subpart DDDDD	National Emission Standards for Industrial, Commercial and Institutional Boilers and Process Heaters-Major Sources
40 CFR Part 63 Subpart ZZZZ	National Emission Standards for Reciprocating Internal Combustion Engines (RICE)
40 CFR Parts 72-78	Acid Rain Requirements
40 CFR Part 96 Subpart AAAA	Clear Air Interstate Rule (CAIR)

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 Regulations into this Title V permit.

TABLE II.A: EMISSIONS UNITS DESCRIPTION

Emissions Unit	Emissions Unit Description	Control Unit Description	Monitoring Unit Description	Permit or Regulation Number
EU-50	Dual Fired Combustion Turbine, Duct Burner and HRSG, BHS No. 5 Make: General Electric (turbine and HRSG) and Foray (duct burner) Model: 7HA.02 (turbine) Installation Date: 4/12/2017 Maximum Rated Capacity (Maximum Gross Heat Input): 3,292 MMBtu/hr (turbine, natural gas, HHV); 3,439 MMBtu/hr (turbine, ULSD, HHV);and 267 MMBTU/hr (duct burner, natural gas, HHV)	Dry Low –NO_x combustors (natural gas operation) Water Injection (ULSD operation) Selective Catalytic Reduction (SCR) Oxidation Catalyst	CEM for: CO_2 NO_x CO NH_3 O_2 Fuel flow Net electrical output	Permit No. 015-0299 RCSA §22a-174-22c (CAIR) 40 CFR Part 60 Subpart KKKK 40 CFR Parts 72-78 (Acid Rain)
EU-51	Natural Gas Fired Auxiliary Boiler with Ultra Low NO_x Burners and FGR Make: Victory Energy Model: Discovery Series Package Boiler Installation Date:	Ultra-Low NO_x Burners FGR	Continuously monitor fuel consumption to the boiler using non-resettable totalizing fuel meter	Permit No. 015-0300 40 CFR Part 60 Subpart Dc 40 CFR Part 63 Subpart DDDDD

Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Emissions Unit	**Emissions Unit Description**	**Control Unit Description**	**Monitoring Unit Description**	**Permit or Regulation Number**
	4/12/2017 Maximum Rated Capacity: 80 MMBtu/hr (HHV)			
EU-52	Emergency Generator Make: Caterpillar Model: 3516C Installation Date: 4/12/2017 Maximum Rated Capacity: 19.1 MMBtu/hr (HHV)	None	Continuously monitor fuel consumption to the generator using non-resettable totalizing fuel meter	Permit No. 015-0301 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ
EU-53	Emergency Fire Pump Engine (Ancillary equipment) Make: Cummins Model: CFP9E-F60 Installation Date: 4/12/2017 Maximum Rated Capacity: 2.6 MMBtu/hr (HHV)	None	Continuously monitor fuel consumption to the engine using non-resettable totalizing fuel meter	Permit No. 015-0299 40 CFR Part 60 Subpart IIII 40 CFR Part 63 Subpart ZZZZ
EU-54	Cooling Tower (Ancillary equipment) Make: SPX Model: NC 8411WCN-03 Installation Date: 4/12/2017 Maximum Rated Capacity: 13,000 gal/min	Drift Eliminators	None	Permit No. 015-0299

Section II: Emissions Units Information

TABLE II.A: EMISSIONS UNITS DESCRIPTION				
Emissions Unit	**Emissions Unit Description**	**Control Unit Description**	**Monitoring Unit Description**	**Permit or Regulation Number**
GEU-1	Separate small emission units consisting of: building space heaters, makeup air heaters, and HVAC units Make: Various Model: Various Installation Date: 4/12/2017 Maximum Rated Capacity: 17.67 MMBtu/hr (HHV) (Maximum aggregate total)	None	Continuously monitor fuel consumption to the heaters using a single non-resettable totalizing fuel meter	Permit No. 015-0299

B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios and Alternative Operating Scenarios without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B. There are no Alternate Operating Scenarios for the premises.

TABLE II.B: OPERATING SCENARIO IDENTIFICATION

Emissions Units Associated with the Scenario	Description of Scenario
EU-50	Combustions turbine, duct burners and HRSG operate in any of the following modes: Mode 1-Turbine operating on natural gas without duct firing Mode 2- Turbine operating on natural gas with duct firing Mode 3- Turbine operating on ULSD without duct firing Mode 4-Turbine operating on ULSD with duct firing
EU-51	Operates on natural gas
EU-52	Operates on diesel fuel
EU-53	Operates on diesel fuel
EU-54	Mechanical draft auxiliary cooling tower to support EU-50 operations
GEU-1	Operates on natural gas

Section III: Applicable Requirements and Compliance Demonstration

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

A. EU-50 General Electric 7HA.02 Dual Fired Combustion Turbine, Duct Burner and Heat Recovery System Generator (HRSG)
Subject to: Permit No. 015-0299, RCSA §22a-174-22c (CAIR), 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78 (Acid Rain)

1. Fuels and Maximum Heat Input

a. Limitation or Restriction

i. Maximum Heat Input over any Consecutive 12 Month Period on Natural Gas:
[Permit No. 015-0299]

(A) Turbine: 25,885,944 MMBtu (HHV)

(B) Duct Burner: 849,934 MMBtu (HHV)

ii. Maximum Natural Gas Sulfur Content: 0.5 grains/100 scf
[Permit No. 015-0299; 40 CFR §60.4365(a)]

iii. Turbine's Maximum Heat Input over any Consecutive 12 Month Period on ULSD: 2,309,684 MMBtu (HHV) [Permit No. 015-0299]

iv. Maximum ULSD Sulfur Content: 0.0015% by weight
[Permit No. 015-0299; 40 CFR §60.4365(a)]

v. The Permittee shall only burn ULSD in the combined cycle turbine during hours when one or more of the following conditions is true: [Permit No. 015-0299]

(A) Independent System Operator - New England (ISO NE) declares an Energy Emergency as defined in ISO NE's Operating Procedure No. 21 – Energy Inventory Accounting and Actions during an Energy Emergency and requests the firing of ULSD.

(B) ISO NE required audits of capacity.

(C) The natural gas supply is curtailed by the gas supplier. A curtailment begins when the Permittee receives a communication from the gas supplier stating that natural gas supply will be curtailed, and ends when the Permittee receives a communication from the gas supplier stating that the curtailment has ended.

(D) There exists a physical blockage or breakage in the natural gas pipeline.

(E) The Permittee is commissioning the combined cycle turbine and, pursuant to the turbine manufacturer's written instructions, the Permittee is required by the manufacturer to fire ULSD during the commissioning process.

(F) The firing of ULSD is required for emission testing purposes as specified in this Title V permit.

(G) Routine maintenance of any equipment that will require the Permittee to fire ULSD.

(H) In order to maintain an appropriate turnover of the on-site fuel oil inventory, the Permittee may fire ULSD when the last delivery of the oil to the tank was more than six months ago.

vi. The Permittee will be allowed to operate the duct burner on natural gas during ULSD operation of the turbine for up to 250 hours in a 12 consecutive month period.

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4a and 22a-174-22e, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78, as applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis: fuel flow, 1 hour block averaging time. [Permit No. 015-0299; 40 CFR §60.4350(e)]

ii. The Permittee shall use fuel flow meters, certified in accordance with 40 CFR Part 75 Appendix D to measure and record the fuel rate to the turbine and duct burner.
[Permit No. 015-0299; 40 CFR §60.4345(c)]

iii. The frequency of determining the sulfur content of the fuel shall be as follows:

(A) For fuel oil, use one of the total sulfur sampling options and the associated sampling frequency described in Sections 2.2.3, 2.2.4.1, 2.2.4.2, and 2.2.4.3 of Appendix D to 40 CFR Part 75 (i.e., flow proportional sampling, daily sampling, sampling from the unit's storage tank after each addition of fuel to the tank, or sampling each delivery prior to combining it with fuel oil already in the intended storage tank). [40 CFR §60.4370(a)]

(B) The Permittee may develop custom schedules for determination of the total sulfur content of gaseous fuels, based on the design and operation of the affected facility and the characteristics of the fuel supply. Except as provided in paragraphs 40 CFR §§60.4370(c)(1) and (c)(2), custom schedules shall be substantiated with data and shall be approved by the Administrator before they can be used to comply with the standard in 40 CFR §60.4330. [40 CFR §60.4370(c)]

iv. The Permittee shall periodically determine the sulfur content of the fuel combusted in the turbine, a representative fuel sample may be collected either by an automatic sampling system or manually. For automatic sampling, follow ASTM D5287 (incorporated by reference, see 40 CFR §60.17) for gaseous fuels or ASTM D4177 (incorporated by reference, see 40 CFR §60.17) for liquid fuels. For manual sampling of gaseous fuels, follow API Manual of Petroleum Measurement Standards, Chapter 14, Section 1, GPA 2166, or ISO 10715 (all incorporated by reference, see 40 CFR §60.17). For manual sampling of liquid fuels, follow GPA 2174 or the procedures for manual pipeline sampling in section 14 of ASTM D4057 (both incorporated by reference, see 40 CFR §60.17). The fuel analyses of this section may be performed either by the Permittee, a service contractor retained by the Permittee, the fuel vendor, or any other qualified agency. Analyze the samples for the total sulfur content of the fuel using: [40 CFR §§60.4415(a)(2)(i) and (ii)]

(A) For liquid fuels, ASTM D129, or alternatively D1266, D1552, D2622, D4294, or D5453 (all incorporated by reference, see 40 CFR §60.17); or

(B) For gaseous fuels, ASTM D1072, or alternatively D3246, D4084, D4468, D4810, D6228, D6667, or Gas Processors Association Standard 2140, 2261, or 2377 (all incorporated by

reference, see 40 CFR §60.17).

c. Record Keeping Requirements

i. The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption for the turbine. 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 within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall make and keep records of monthly and consecutive 12 month natural gas consumption for the duct burner. The consecutive 12 month natural gas consumption shall be determined by adding the current month's natural gas consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

iii. The Permittee shall make and keep records of the monthly and consecutive 12 month heat input to the turbine for both natural gas and ULSD firing. The records shall include sample calculations. [Permit No. 015-0299]

iv. The Permittee shall make and 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. [Permit No. 015-0299; 40 CFR §60.4365(a)]

v. The Permittee shall keep records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel specifying the maximum total sulfur content for the natural gas or periodic fuel sampling as allowed under 40 CFR §60.4370(c). [Permit No. 015-0299]

vi. The Permittee shall make and keep records of the monthly and consecutive 12 month heat input to the duct burner. The record shall include sample calculations. [Permit No. 015-0299]

vii. The Permittee shall make and keep records of all occurrences of firing ULSD in the turbine. At a minimum these records shall contain the following information: [Permit No. 015-0299]

(A) The date the turbine operated on ULSD;

(B) The duration of ULSD firing;

(C) The reason for ULSD firing; and

(D) The heat input to the turbine.

viii. The Permittee shall make and keep records of all occurrences of firing ULSD in the turbine and natural gas in the duct burner. At a minimum these records shall contain the following information: [Permit No. 015-0299]

(A) The date the turbine operated firing ULSD/duct burner operated firing natural gas;

(B) The duration of the turbine firing ULSD/duct burner firing natural gas occurrence;

(C) The reason for the turbine firing ULSD/duct burner firing natural gas occurrence; and

(D) The heat input to the turbine and duct burner.

ix. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in 40 CFR §60.4345(c). [40 CFR §60.4345(e)]

d. Reporting Requirements

i. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR §60.4375(a)]

ii. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that shall be reported and are defined for turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345: A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: fuel flow rate. [40 CFR §60.4380(b)(2)]

iii. All reports required under 40 CFR §60.7(c) shall be postmarked by the 30th day following the end of each six month period. [40 CFR §60.4395]

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on natural gas without duct firing (Mode 1):
[Permit No. 015-0299]

(A) 11.9 lb/hr

(B) 0.007 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

ii. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299]

(A) 14.6 lb/hr

(B) 0.005 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iii. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on ULSD without duct firing (Mode 3):
[Permit No. 015-0299]

(A) 60.0 lb/hr

(B) 0.030 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iv. The Permittee shall not exceed the following steady state $PM/PM_{10}/PM_{2.5}$ emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4):
[Permit No. 015-0299]

(A) 65.0 lb/hr

(B) 0.021 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual $PM/PM_{10}/PM_{2.5}$ emission limit stated herein at any time: 71.8 Tons per consecutive 12 months.
[Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall conduct initial stack testing for $PM/PM_{10}/PM_{2.5}$ within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD.
[Permit No. 015-0299]

ii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iii. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: stack testing data. [Permit No. 015-0299]

iv. Recurrent stack testing of $PM/PM_{10}/PM_{2.5}$ shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exception: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month $PM/ PM_{10}/ PM_{2.5}$ emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month PM/ PM_{10}/ $PM_{2.5}$ emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

3. SO_2

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on natural gas without duct firing (Mode 1):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 5.5 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

ii. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 5.6 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iii. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on ULSD without duct firing (Mode 3):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 6.6 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

iv. The Permittee shall not exceed the following steady state SO_2 emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4):
[Permit No. 015-0299; 40 CFR §60.4330(a)(2)]

(A) 7.1 lb/hr

(B) 0.002 lb/MMBtu[1]

[1] lb/MMBtu allowable emission limits shall apply at all times, including periods of startup and shutdown

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual SO_2 emission limit stated herein at any time: 22.7 Tons per consecutive 12 months. [Permit No. 015-0299]

vi. The Permittee shall: [RCSA §22a-174-19a(e)]

(A) Combust liquid fuel, gaseous fuel or a combination of each provided that each fuel possess a fuel sulfur limit of equal to or less than 3000 ppm (0.3 % sulfur, by weight);

(B) Meet an average emission rate of equal to or less than 0.33 lb SO_2/MMBtu for each calendar quarter for an affected unit at a premises; or

(C) Meet an average emissions rate of equal to or less than 0.3 lb SO_2/MMBtu calculated for each calendar quarter, if the Permittee averages the emissions from two or more emissions units at the premises.

b. Monitoring and Testing Requirements

i. The Permittee shall conduct initial stack testing for SO_2 within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD.
[Permit No. 015-0299]

ii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299; 40 CFR §60.4415(a)]

iii. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: sulfur content in fuel. [Permit No. 015-0299]

iv. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the average SO_2 emission rate limits of RCSA §22a-174-19a(e)(2) or (e)(3), the Permittee shall obtain SO_2 data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75.
[RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

iv. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(1)(A) and (B)]

(A) If fuel with sulfur content not exceeding an applicable fuel sulfur limit is the only fuel purchased and combusted by an affected unit, then the Permittee shall make and keep records that demonstrate the fuel sulfur content of each shipment of fuel received; or

(B) If fuel with sulfur content above any applicable limit is blended at the premises for combustion in an affected unit or units, the Permittee shall make and keep daily records demonstrating that all fuel combusted at the affected unit or units meets the applicable fuel sulfur limits of RCSA §22a-174-19a(e)(1). Fuel sulfur analysis shall be conducted in accordance with the American Society for Testing and Material (ASTM) test method D4294 and automatic sampling equipment shall conform to ASTM test method D4177-82, or a more recent version of the same method. (Copies of ASTM test methods referenced in this section may be obtained from the Department of Environmental Protection, Bureau of Air Management, 79 Elm Street, 5th floor, Hartford, CT 06106-5127; (860) 424-3027).

v. If the Permittee demonstrates compliance with RCSA §22a-174-19a by meeting the average SO_2 emission rate limits of RCSA §§22a-174-19a(e)(2) or (e)(3), the Permittee shall make and keep records in accordance with the following: [RCSA §§22a-174-19a(i)(2)(A) and (C)]

(A) For affected units that are also Title IV sources, hourly SO_2 emission rate values determined from data measured by a CEMS in accordance with the applicable provisions of 40 CFR Part 75; and

(B) For all affected units, quarterly facility SO_2 emission rate averages, determined by dividing total quarterly SO_2 emissions by total quarterly heat input values for all affected units at the facility.

vi. The Permittee unit shall keep the records specified in RCSA §§22a-174-19a(i)(1) or (2) at the premises for a period of five years. [RCSA §22a-174-19a(i)(3)]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

iii. The Permittee of an affected unit for which the commissioner has issued a final Title V permit shall, as part of any compliance certification pursuant to RCSA §22a-174-33(q)(2), certify in writing to the commissioner compliance with the applicable provisions of RCSA §22a-174-19a. Such certification shall include actual quarterly SO_2 emissions in tons and either average quarterly fuel sulfur content or average quarterly emission rate, whichever is applicable, for each affected unit. [RCSA §22a-174-19a(j)(1)]

4. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on natural gas without duct firing (Mode 1):
[Permit No. 015-0299; 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 25.1 lb/hr

(B) 2.0 ppmvd @ 15% O_2 [1-hour block]

ii. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299; 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 25.7 lb/hr

(B) 2.0 ppmvd @ 15% O_2 [1-hour block]

iii. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on ULSD without duct firing (Mode 3):
[Permit No. 015-0299; 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 56.1 lb/hr

(B) 4.0 ppmvd @ 15% O_2 [1-hour block]

iv. The Permittee shall not exceed the following steady state NO_x emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4):
[Permit No. 015-0299; 40 CFR §60.4320(a); 40 CFR Part 60 Subpart KKKK, Table 1]

(A) 60.2 lb/hr

(B) 4.0 ppmvd @ 15% O_2 [1-hour block]

v. The following emissions limitations, based on a daily block average for an emission unit with a NO_x CEM system apply to the Permittee. [RCSA §§22a-174-22e(d)(5)(C) and -22e(d)(11)(B)]

(A) Gas-fired: 25 ppmvd [daily block average]

(B) Other oil-fired: 42 ppmvd [daily block average]

vi. The following non-ozone season emissions limitation applies to the Permittee. The averaging period for the non-ozone season limit is October 1 through April 30.
[RCSA §§22a-174-22e(d)(5)(D) and -22e(d)(11)(A)]

(A) Gas-fired/Other oil-fired: 0.15 lb/MMBtu

vii. The Permittee shall not cause or allow emissions of NO_x from such emission unit in excess of the following: [RCSA §22a-174-22e(d)(10)]

(A) For fuel-burning equipment that simultaneously fires two or more fuels, an emissions limitation calculated by: [RCSA §22a-174-22e(d)(10)(A)]

(1) Multiplying the heat input of each fuel combusted by the emissions limitation in RCSA §22a-174-22e(d) for the particular emission unit and fuel used,
[RCSA §22a-174-22e(d)(10)(A)(i)]

(2) Summing those products, and [RCSA §22a-174-22e(d)(10)(A)(ii)]

(3) Dividing the sum by the total heat input; or [RCSA §22a-174-22e(d)(10)(A)(iii)]

(B) For fuel-burning equipment that is capable of interchangeably firing two or more fuels, the emissions limitation in RCSA §22a-174-22e(d) for the particular equipment and fuel used.
[RCSA §22a-174-22e(d)(10)(B)]

viii. The Permittee shall meet the emission limits specified in 40 CFR Part 60 Subpart KKKK, Table 1. If the total heat input is greater than or equal to 50% natural gas, the Permittee shall meet the corresponding limit for a natural gas-fired turbine when the Permittee is burning that fuel. Similarly, when the total heat input is greater than 50% distillate oil and fuels other than natural gas, the Permittee shall meet the corresponding limit for distillate oil and fuels other than natural gas for the duration of the time that the Permittee burns that particular fuel.
[40 CFR §60.4325]

ix. The Permittee shall not exceed the following startup operation NO_x emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold, 99 lb/event

(B) Startup Type: Warm, 99 lb/event

(C) Startup Type: Hot, 67 lb/event

x. The Permittee shall not exceed the following startup operation NO_x emissions rates when the

turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold, 108 lb/event

(B) Startup Type: Warm, 108 lb/event

(C) Startup Type: Hot, 63 lb/event

xi. The Permittee shall not exceed the following shutdown operation NO_x emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown T ype: Cold/Warm/Hot, 9.8 lb/event

xii. The Permittee shall not exceed the following shutdown operation NO_x emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 16 lb/event

xiii. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual NO_x emission limit stated herein at any time: 126.8 Tons per consecutive 12 months. [Permit No. 015-0299]

xiv. The Permittee shall not exceed the following NO_x emission limit when operating on natural gas or ULSD: 0.15 lb/MMBtu (Non Ozone Season: October 1st – April 30th).
[RCSA §22a-174-22e(d)(5)(D); RCSA §22a-174-22e(d)(11)(A)]

xv. For a combined cycle combustion turbine associated with a duct burner, the emissions from the turbine and duct burner system in the aggregate, or either the turbine or duct burner if the turbine or duct burner operates alone, shall at all times be less than the applicable emissions limitations in RCSA §22a-174-22e(d)(5). [RCSA §22a-174-22e(d)(15)]

xvi. To comply with RCSA §22a-174-3a(l), the Permittee shall possess, at least 178 tons of external Emission Reduction Credits (ERCs) to offset the quantity of NO_x emitted from the following sources: [Permit No. 015-0299]

(A) EU-50, Dual fuel fired General Electric Model 7HA.02 combustion turbine with duct burner operating under Permit No. 015-0299

(B) EU-51, One auxiliary boiler operating under Permit No. 015-0300

(C) EU-52, One emergency generator operating under Permit No. 015-0301

(D) EU-53, One emergency fire pump operating under collateral conditions in Permit No. 015-0299

(E) EU-54, One Cooling Tower operating under collateral conditions in Permit No. 015-0299

(F) Three fuel storage tanks

(G) HVAC units, makeup air heaters and building space heaters (GEU-1) operating under collateral conditions in Permit No. 015-0299

xvii. Such a quantity is sufficient to offset the emissions at a ratio of 1.3 to 1 ton of reduction for every ton of NO_x emissions allowed under Permit Nos. 015-0299, 105-0300 and 015-0301. 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 the permit. [Permit No. 015-0299]

xviii. Such NO_x offsets have been obtained from the following sources: The Permittee used 115 tons of Emission Reduction Credits (ERCs) from GB II Connecticut LLC – Bridgeport Harbor Station. The ERCs have Serial Numbers: CT4NOx00-015-0045-7668-115 and the Permittee acquired 63 tons of ERCs from the New York Power Authority: NY-DEC-2-6301-00084-63. [Permit No. 015-0299]

xix. The Permittee may be required to obtain additional NO_x offsets and complete additional ambient air quality analysis to show that the National Air Ambient Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments have not been violated, if observed steady state or transient emissions exceed an emissions limit in Section III.A.4 of this Title V permit. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4a and 22a-174-22e, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78, as applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis: NO_x, 1 hour block averaging time. [Permit No. 015-0299]

ii. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO_x emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]

iii. Compliance with the seasonal limits of RCSA §22a-174-22e(d) shall be determined using emissions and operating data for the entire five-month period for an ozone season emissions limitation or for the entire seven-month period for a non-ozone season emissions limitation, except as follows: [RCSA §§22a-174-22e(m)(5)(A) and (B)]

(A) For the 2018 or 2023 ozone season, compliance shall be determined based on data collected June 1 through September 30; or

(B) If an emission unit commences initial operation during the ozone season or non-ozone season, compliance shall be determined based only on the portion of the season in which the unit operated.

iv. Install, certify, maintain, and operate a continuous emission monitoring system (CEMS) consisting of a NO_X monitor and a diluent gas (oxygen (O_2) or carbon dioxide (CO_2)) monitor, to determine the hourly NO_X emission rate in parts per million (ppm) or pounds per million British thermal units (lb/MMBtu). [40 CFR §60.4335(b)(1); 40 CFR §60.4340(b)(1)]

v. Each NO_x diluent CEMS shall be installed and certified according to Performance Specification 2 (PS 2) in Appendix B to 40 CFR Part 60, except the seven day calibration drift is based on unit operating days, not calendar days. With state approval, Procedure 1 in Appendix F to 40 CFR Part

60 is not required. Alternatively, a NO_x diluent CEMS that is installed and certified according to Appendix A of 40 CFR Part 75 is acceptable for use under 40 CFR Part 60 Subpart KKKK. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis. [40 CFR §60.4345(a)]

vi. As specified in 40 CFR §60.13(e)(2), during each full unit operating hour, both the NO_x monitor and the diluent monitor shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each 15-minute quadrant of the hour, to validate the hour. For partial unit operating hours, at least one valid data point shall be obtained with each monitor for each quadrant of the hour in which the unit operates. For unit operating hours in which required quality assurance and maintenance activities are performed on the CEMS, a minimum of two valid data points (one in each of two quadrants) are required for each monitor to validate the NO_x emission rate for the hour. [40 CFR §60.4345(b)]

vii. For the purposes of identifying excess emissions: [40 CFR §§60.4350(a)-(d) and (f)]

(A) All CEMS data shall be reduced to hourly averages as specified in 40 CFR §60.13(h).

(B) For each unit operating hour in which a valid hourly average, as described in 40 CFR §60.4345(b), is obtained for both NO_x and diluent monitors, the data acquisition and handling system shall calculate and record the hourly NO_x emission rate in units of ppm or lb/MMBtu, using the appropriate equation from Method 19 in Appendix A of 40 CFR Part 60. For any hour in which the hourly average O_2 concentration exceeds 19.0% O_2 (or the hourly average CO_2 concentration is less than 1.0% CO_2), a diluent cap value of 19.0% O_2 or 1.0% CO_2 (as applicable) may be used in the emission calculations.

(C) Correction of measured NO_x concentrations to 15 % O_2 is not allowed.

(D) If the Permittee has installed and certified a NO_x diluent CEMS to meet the requirements of 40 CFR Part 75, states can approve that only quality assured data from the CEMS shall be used to identify excess emissions under this subpart. Periods where the missing data substitution procedures in 40 CFR Part 75 Subpart D are applied are to be reported as monitor downtime in the excess emissions and monitoring performance report required under 40 CFR §60.7(c).

(E) Calculate the hourly average NO_x emission rates, in units of the emission standards under 40 CFR §60.4320, using either ppm for units complying with the concentration limit or 40 CFR §60.4350(f), Equation 1.

viii. For combined cycle, use the calculated hourly average emission rates from paragraph 40 CFR §60.4350(f) to assess excess emissions on a 30 unit operating day rolling average basis, as described in 40 CFR §60.4380(b)(1). [40 CFR §60.4350(h)]

ix. The Permittee shall conduct initial stack testing for NOx within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

x. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299; 40 CFR §60.4400(a)]

xi. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: CEM data for steady state and manufacturer's recommended uncontrolled emission factors for transient state.
[Permit No. 015-0299]

xii. The Permittee shall continuously monitor the water injection rate (lb/hr). The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in this Title V permit.
[Permit No. 015-0299]

xiii. Recurrent stack testing of NO_x shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions:
[Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

xiv. The Permittee shall demonstrate compliance with the emissions limitations of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR Part 60, Appendix A or, for affected units under 40 CFR Part 75, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed by the commissioner in a permit or order, is operating at or above 90% of maximum capacity, except as follows:
[RCSA §§22a-174-22e(d)(12), -22e(l)(1)(A), -22e(l)(7)(A) and (B)]

(A) If the commissioner determines that operating at or above 90% of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emissions limitations of RCSA §22a-174-22e(d) shall be determined based on operating at or above 90% of the alternative maximum capacity approved by the commissioner; and

(B) Any emission unit that has operated in excess of 100% of its maximum capacity at any time since the most recent performance test performed pursuant to RCSA §22a-174-22e the emission unit is operating at or above 90% of its highest operating rate since the most recent performance test performed pursuant to RCSA §22a-174-22e.

xv. If the Permittee is unable to conduct scheduled emission testing required by RCSA §22a-174-22e due to force majeure, the Permittee shall conduct the required emission testing as soon as practicable after the force majeure event occurs. [RCSA §22a-174-22e(l)(8)]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the

annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall continuously record the water injection rate (lb/hr). The Permittee shall maintain this parameter within the range recommended by the manufacturer to achieve compliance with the emission limits in this Title V permit. [Permit No. 015-0299]

iv. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: total NO_x emissions emitted (lb) during the event. [Permit No. 015-0299; 40 CFR §60.7(b)]

v. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

vi. The Permittee shall make and keep the following records:

(A) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing; [RCSA §22a-174-22e(j)(2)(C)]

(B) For an emission unit that has or is required to have a CEM system for NO_x: [RCSA §§22a-174-22e(j)(2)(D)(i-iv)]

(1) Records of all performance evaluations, calibration checks and adjustments on such monitor;

(2) A record of maintenance performed;

(3) All data necessary to complete the quarterly reports required under RCSA §22a-174-22e(k)(3); and

(4) Charts, electronically stored data, and printed records produced by such CEM as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.

(C) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]

(D) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

vii. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in 40 CFR §60.4345(a). [40 CFR §60.4345(e)]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. Not more than 60 days after the completion of emission tests conducted under RCSA §22a-174-22e(l), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1); Permit No. 015-0299]

iii. The Permittee shall submit to the commissioner, on forms provided by the commissioner, written quarterly reports of excess emissions and CEM system malfunctions. Such reports shall be submitted to the commissioner on or before January 30, April 30, July 30 and October 30 of each year and shall include: [RCSA §§22a-174-22e(k)(3)(A)-(G)]

(A) All daily block average data, in a format acceptable to the commissioner, for the three calendar month period ending the month before the due date of the report;

(B) The date and time of commencement and completion of each period of excess emissions;

(C) The magnitude and suspected cause of the excess emissions;

(D) Actions taken to correct the excess emission;

(E) The date and time when each malfunction of the CEM system commenced and ended;

(F) Actions taken to correct each malfunction; and

(G) If not excess emissions or CEM system malfunctions occur during a quarter, the Permittee shall indicate that no excess emissions or malfunctions occurred during the quarter.

iv. Upon written notice, the commissioner may require the Permittee to provide all hourly CEM data, in a format acceptable to the commissioner, for the three calendar month period identified in such written notice. [RCSA §22a-174-22e(k)(4)]

v. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR §60.4375(a)]

vi. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that shall be reported and are defined for turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345: [40 CFR §60.4380(b)]

vii. An excess emissions is any unit operating period in which the 30-day rolling average NO_x emission rate exceeds the applicable emission limit in 40 CFR §60.4320. For the purposes of 40 CFR Part 60 Subpart KKKK, a "30-day rolling average NO_x emission rate" is the arithmetic average of all hourly NO_x emission data in ppm or ng/J (lb/MWh) measured by the continuous emission monitoring equipment for a given day and the 29 unit operating days immediately preceding that

unit operating day. A new 30-day average is calculated each unit operating day as the average of all hourly NO_x emissions rates for the preceding 30 unit operating days if a valid NO_x emission rate is obtained for at least 75% of all operating hours. [40 CFR §60.4380(b)(1)]

viii. A period of monitor downtime is any unit operating hour in which the data for any of the following parameters are either missing or invalid: NO_x concentration, CO_2 or O_2 concentration, fuel flow rate, steam flow rate, steam temperature, steam pressure, or megawatts. The steam flow rate, steam temperature, and steam pressure are only required if the Permittee will use this information for compliance purposes. [40 CFR §60.4380(b)(2)]

ix. All reports required under 40 CFR §60.7(c) shall be postmarked by the 30th day following the end of each six month period. [40 CFR §60.4395]

5. Clear Air Interstate Rule (CAIR) NO_x Ozone Season Trading Program

EU-50 is a CAIR NO_x Ozone season unit and therefore is subject to RCSA §22a-174-22c. The unit shall comply with all applicable requirements stated in RCSA §22a-174-22c and the standard requirements of the CAIR permit application. [RCSA §22a-174-22c; 40 CFR Part 96 Subpart AAAA]

6. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on natural gas without duct firing (Mode 1): [Permit No. 015-0299]

(A) 6.9 lb/hr

(B) 0.9 ppmvd @ 15% O_2

ii. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2):
[Permit No. 015-0299]

(A) 13.3 lb/hr

(B) 1.7 ppmvd @ 15% O_2

iii. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on ULSD without duct firing (Mode 3): [Permit No. 015-0299]

(A) 17.1 lb/hr

(B) 2.0 ppmvd @ 15% O_2

iv. The Permittee shall not exceed the following steady state CO emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4): [Permit No. 015-0299]

(A) 55.0 lb/hr

(B) 6.0 ppmvd @ 15% O_2

v. The Permittee shall not exceed the following startup operation CO emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold, 129 lb/event

(B) Startup Type: Warm, 126 lb/event

(C) Startup Type: Hot, 120 lb/event

vi. The Permittee shall not exceed the following startup operation CO emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold, 284 lb/event

(B) Startup Type: Warm, 279 lb/event

(C) Startup Type: Hot, 261 lb/event

vii. The Permittee shall not exceed the following shutdown operation CO emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 124 lb/event

viii. The Permittee shall not exceed the following shutdown operation CO emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 42.0 lb/event

ix. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual CO emission limit stated herein at any time: 95.1 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4a and 22a-174-22e, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78, as applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis: CO, 1 hour block averaging time and O_2, 1 hour block averaging time. [Permit No. 015-0299]

ii. The Permittee shall conduct initial stack testing for CO within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

iii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: CEM data for steady state and manufacturer's recommended uncontrolled emission factors for transient state. [Permit No. 015-0299]

v. Recurrent stack testing of CO shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: total CO emissions emitted (lb) during the event. [Permit No. 015-0299; 40 CFR §60.7(b)]

iv. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

7. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on natural gas without duct firing (Mode 1): [Permit No. 015-0299]

(A) 3.1 lb/hr

(B) 0.7 ppmvd @ 15% O_2

ii. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on natural gas with duct firing natural gas (Mode 2): [Permit No. 015-0299]

(A) 7.2 lb/hr

(B) 1.6 ppmvd @ 15% O_2

iii. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on ULSD without duct firing (Mode 3): [Permit No. 015-0299]

(A) 9.8 lb/hr

(B) 2.0 ppmvd @ 15% O_2

iv. The Permittee shall not exceed the following steady state VOC emission limits when the turbine is operating on ULSD with duct firing natural gas (Mode 4): [Permit No. 015-0299]

(A) 20.9 lb/hr

(B) 4.0 ppmvd @ 15% O_2

v. The Permittee shall not exceed the following startup operation VOC emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold, 10.2 lb/event

(B) Startup Type: Warm, 9.6 lb/event

(C) Startup Type: Hot, 8.4 lb/event

vi. The Permittee shall not exceed the following startup operation VOC emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold, 31 lb/event

(B) Startup Type: Warm, 31 lb/event

(C) Startup Type: Hot, 28 lb/event

vii. The Permittee shall not exceed the following shutdown operation VOC emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 26 lb/event

viii. The Permittee shall not exceed the following shutdown operation emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 6.2 lb/event

ix. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual VOC emission limit stated herein at any time: 29.5 Tons per consecutive 12 months. [Permit No. 015-0299]

x. To comply with RCSA §22a-174-3a(l), the Permittee shall possess, at least 41 tons of ERCs to offset the quantity of VOC emitted from the following sources: [Permit No. 015-0299]

(A) EU-50, Dual fuel fired General Electric Model 7HA.02 combustion turbine with duct burner operating under Permit No. 015-0299

(B) EU-51, One auxiliary boiler operating under Permit No. 015-0300

(C) EU-52, One emergency generator operating under Permit No. 015-0301

(D) EU-53, One emergency fire pump operating under collateral conditions in Permit No. 015-0299

(E) EU-54, One Cooling Tower operating under collateral conditions in Permit No. 015-0299

(F) Three fuel storage tanks

(G) HVAC units, makeup air heaters and building space heaters (GEU-1) operating under collateral conditions in Permit No. 015-0299

xi. Such a quantity is sufficient to offset the emissions at a ratio of 1.3 to 1 ton of reduction for every ton of VOC emissions allowed under Permit Nos. 015-0299, 105-0300 and 015-0301. 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 the permit. [Permit No. 015-0299]

xii. Such VOC offsets have been obtained from the following source: The Permittee acquired 41 tons of ERCs from Element Markets, LLC: NY-DEC-2-6401-00042-41. [Permit No. 015-0299]

xiii. The Permittee may be required to obtain additional VOC offsets and complete additional ambient air quality analysis to show that the National Air Ambient Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) increments have not been violated, if observed steady state or transient emissions exceed an emission limit in Section III.A.6 of this Title V permit. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall conduct initial stack testing for VOC within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

ii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iii. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack testing data for steady state and manufacturer's recommended uncontrolled emission factors for transient state. [Permit No. 015-0299]

iv. Compliance with VOC emission limits shall be determined by correlating the VOC emissions to the CO emissions using the results of the stack test required in this Title V permit along with manufacturer's data and tracked using the CO CEMS. [Permit No. 015-0299]

v. Recurrent stack testing of VOC shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exception: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: total VOC emissions emitted (lb) during the event. [Permit No. 015-0299; 40 CFR §60.7(b)]

iv. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

7a. Compliance Assurance Monitoring (CAM) Plan for EU-50 only
Emera Chem Oxidation Catalyst

a. *Indicator No. 1*: CO emission rate (ppmvd @ 15%O_2) as measured by the CO CEMS

b. *Indicator No. 2*: The prediction of the VOC emission rate using a correlation algorithm

i. *Justification*: The CO emission rate was chosen as the CAM indicator because the same parameters that influence the oxidation catalyst control of CO also influence control of VOC. Elevated CO levels are an indicator that emissions of VOC may also be elevated. CO levels that remain below the steady state CO emission limits will indicate that the oxidation catalyst system is performing adequately and will provide reasonable assurance of ongoing compliance with the pollutant specific emission unit's permitted VOC emission limits.

During the initial stack testing of EU-50, the Permittee will conduct correlation testing of VOC emissions versus CO stack test and CO CEMs results over a range of potential EU-50 operating conditions to develop a correlation algorithm. This algorithm will be used as part of the CAM plan to relate CO CEMs data with VOC emissions. The correlation results will be updated during the recurrent stack testing.

The Permittee will input the CO CEMs data into the correlation algorithm described above. The resultant prediction of VOC emission levels will be used as a secondary indicator of compliance with the steady state VOC emission limits.

ii. *Measurement Approach*: CO is measured and recorded using a certified CEMS

iii. *Indicator Range or Designated Conditions*: CO emissions less than or equal to the steady state CO emission limitations:

(A) Mode 1 (natural gas, without duct firing): 0.9 ppmvd @ 15%O_2

(B) Mode 2 (natural gas, with duct firing): 1.7 ppmvd @ 15%O_2

(C) Mode 3 (natural gas, without duct firing): 2.0 ppmvd @ 15%O_2

(D) Mode 4 (natural gas, with duct firing): 6.0 ppmvd @ 15%O_2

iv. *Corrective Action*: In the event of an excursion of a CO emission limit, or a prediction by the correlation algorithm that a steady state VOC emission limit may be exceeded, the occurrence will be evaluated by a station operator to determine the procedures necessary to correct the condition.

v. *Data Representatives*: CO data will be collected and validated in accordance with the CEMs requirements. CO CEMs data availability is in accordance with the CEMs requirements.

vi. *QA/QC*: CO QA/QC procedures are consistent with the CEMs requirements.

vii. *Monitoring Frequency*: CO is measured on a continuous basis with the exception of QA/QC periods, monitor malfunction periods and periods where the module is not combusting fuel.

viii. *Data Collection*: CO data is collected by a computerized Data Acquisition System meeting the CEMs requirements.

ix. *Averaging Period*: CO emission rate is a 1-hour block average

x. *Record Keeping*: Time of day and duration of any CAM plan excursion and resulting corrective actions will be recorded.

xi. *Reporting*: A list of all CAM plan excursions, their durations and corrective actions.

xii. *Frequency*: CO is measured on a continuous basis with the exception of QA/QC periods, monitor malfunction periods and periods where the module is not combusting fuel.

8. Lead (Pb)

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on natural gas without duct firing (Mode 1): 0.0016 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on natural gas with duct firing natural gas (Mode 2): 0.0017 lb/hr. [Permit No. 015-0299]

iii. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on ULSD without duct firing (Mode 3): 0.05 lb/hr. [Permit No. 015-0299]

iv. The Permittee shall not exceed the following steady state Pb emission limit when the turbine is operating on ULSD with duct firing natural gas (Mode 4): 0.05 lb/hr. [Permit No. 015-0299]

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual Pb emission limit stated herein at any time: 0.02 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: AP-42, Fifth Edition, Volume I, Chapter 3.1, April 2000. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.8.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)]

9. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on natural gas without duct firing (Mode 1): 3.6 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on natural gas with duct firing natural gas (Mode 2): 3.6 lb/hr. [Permit No. 015-0299]

iii. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on ULSD without duct firing (Mode 3): 4.3 lb/hr. [Permit No. 015-0299]

iv. The Permittee shall not exceed the following steady state H_2SO_4 emission limit when the turbine is operating on ULSD with duct firing natural gas (Mode 4): 4.6 lb/hr. [Permit No. 015-0299]

v. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/Space Heaters (GEU-1) to exceed the annual H_2SO_4 emission limit stated herein at any time: 14.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall conduct initial stack testing for H_2SO_4 within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

ii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iii. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: stack testing data. [Permit No. 015-0299]

iv. Recurrent stack testing of H_2SO_4 shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exception: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee

shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

10. Ammonia (NH_3)

a. Limitation or Restriction

i. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on natural gas without duct firing (Mode 1): 2.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on natural gas with duct firing natural gas (Mode 2): 2.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

iii. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on ULSD without duct firing (Mode 3): 5.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

iv. The Permittee shall not exceed the following steady state NH_3 emission limit when the turbine is operating on ULSD with duct firing natural gas (Mode 4): 5.0 ppmvd @ 15% O_2. [Permit No. 015-0299]

v. The Permittee shall not exceed the following startup operation NH_3 emissions rates when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Startup Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

vi. The Permittee shall not exceed the following startup operation NH_3 emissions rates when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Startup Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

vii. The Permittee shall not exceed the following shutdown operation NH_3 emissions rate when the turbine is operating on natural gas. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

viii. The Permittee shall not exceed the following shutdown operation NH_3 emissions rate when the turbine is operating on ULSD. [Permit No. 015-0299]

(A) Shutdown Type: Cold/Warm/Hot, 5.0 ppmvd @ 15% O_2

ix. The Permittee shall not cause or allow the General Electric 7HA.02 dual fired combustion turbine; duct burner; HRSG; and HVAC/space heaters (GEU-1) to exceed the annual NH_3 emission limit stated herein at any time: 47.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4a and 22a-174-22e, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78, as applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis: NH_3, 1 hour block averaging time. [Permit No. 015-0299]

ii. The Permittee shall conduct initial stack testing for NH_3 within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

iii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Demonstration of compliance with the NH_3 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: CEM data for steady state and manufacturer's recommended uncontrolled emission factors for transient state. [Permit No. 015-0299]

v. Recurrent stack testing of NH_3 shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NH_3 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month NH_3 emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: total NH_3 emissions emitted (lb) during the event. [Permit No. 015-0299; 40 CFR §60.7(b)]

iv. The Permittee shall keep records of each delivery of aqueous ammonia. The records shall include: [Permit No. 015-0299]

(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.

v. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

11. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. The Permittee shall conduct initial stack testing for formaldehyde and arsenic within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

ii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iii. Fuel oil 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. [Permit No. 015-0299]

iv. Demonstration of compliance with the HAP emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: AP-42, Fifth Edition, Volume I, Chapter 3.1, April 2000 except for those HAP with required stack test. [Permit No. 015-0299]

v. Recurrent stack testing of formaldehyde and arsenic shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results for formaldehyde shall be reported in the following units: lb/hr and ppmvd @ 15% O_2. [Permit No. 015-0299]

ii. Stack emissions test results for arsenic shall be reported in the following units: lb/hr. [Permit No. 015-0299]

iii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

12. Opacity

a. Limitation or Restriction

i. This equipment shall not exceed 10% opacity during any six-minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [Permit No. 015-0299]

ii. This equipment shall not exceed 40% opacity as measured by 40 CFR Part 60, Appendix A, Reference Method 9, reduced to a one-minute block average. [RCSA §22a-174-18(b)(1)(B)]

b. Monitoring and Testing Requirements

i. A certified observer shall conduct visual observations once every 100 hours of oil firing operation using Reference Method 9. [Permit No. 015-0299]

ii. Monitoring may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g. night time operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. [Permit No. 015-0299]

iii. The Permittee shall conduct initial stack testing for opacity within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

iv. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

v. Recurrent stack testing of opacity shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

vi. Installation and operation of a Continuous Opacity Monitor (COM) on the turbine will be required in accordance with 40 CFR §75.10(a)(4) in the event ULSD use causes the turbine to be defined as an "oil-fired unit." [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall make and keep records of the visual observations of opacity. Record keeping may occur at a lesser frequency if circumstances prohibit conducting a visual determination (e.g. night time operation, weather conditions, unplanned dispatching, etc.) within the 100 hour timeframe. However, in no case shall the interval between visual determinations exceed 125 hours of oil firing operation. If the visual observation occurs at a lesser frequency than every 100 hours of oil firing operation, the reason for monitoring at a lesser frequency shall also be recorded. [Permit No. 015-0299]

d. Reporting Requirements

i. Opacity shall be reported in the following units: %. [RCSA §22a-174-33(j)(1)(X)]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

13. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed a maximum allowable CO_2 for the combined cycle unit of 926 lb/MWh (net plant) on a consecutive 12 month operating rolling basis for the turbine and its associated duct burner including MWh from ULSD firing and the steam turbine. [Permit No. 015-0299]

ii. The Permittee shall not exceed the following CO_{2e} emission limits. Compliance with these limitations shall be determined on a 12 month rolling basis. [Permit No. 015-0299]

(A) Equipment: Permit Nos. 015-0299, 105-0300 and 015-0301 and fugitive emissions, 1,671,463 TPY

(B) Equipment: Combustion turbine/duct burner and HVAC/space heaters (GEU-1), 1,620,616 TPY

(C) Equipment: Fugitive emissions from SF_6-Circuit Breakers & CH_4-Natural Gas Pipeline and Associated Components, 9,285 TPY

b. Monitoring and Testing Requirements

i. The Permittee shall comply with the CEM requirements as set forth in RCSA §§22a-174-4a, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78, as applicable. CEM shall be required for the following pollutant/operational parameters and enforced on the following basis: CO_2 from the HRSG stack, 1 hour block averaging time and net electrical output, continuous averaging time. [Permit No. 015-0299]

ii. The Permittee shall conduct initial stack testing for CO_2 within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup on ULSD. [Permit No. 015-0299]

iii. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0299]

iv. Demonstration of compliance with the above emission limits shall be met by calculating the emission rates using emission factors from the following sources: [Permit No. 015-0299]

(A) CO_2 emissions from the combustion turbine shall be determined by CO_2 CEM.

(B) CO_2 emissions from the auxiliary boiler, emergency generator, emergency fire pump engine and HVAC/space heaters shall be determined using the default emission factors from 40 CFR Part 98 Subpart C - General Stationary Fuel Combustion Sources, Table C-1: Default CO_2 Emission Factors and High Heat Values for Various Types of Fuel.

(C) Methane (CH_4) and Nitrous Oxide (N_2O) for all combustion sources shall be determined using the default emission factors found in 40 CFR Part 98 Subpart C - General Stationary Fuel Combustion Sources; Table C-2: Default CH_4 and N_2O Emission Factors for Various Types of Fuel.

(D) Emissions of sulfur hexafluoride (SF_6) from the electrical circuit breakers shall be determined using mass balance found in 40 CFR Part 98 Subpart DD - Electrical Transmission and Distribution Equipment; Equation DD-1.

(E) Emissions from CH_4 from the natural gas pipeline and associated components shall be determined using the default emission factors found in 40 CFR Part 98 Subpart W Petroleum and Natural Gas System; Table W-7: Default Methane Emission Factors for Natural Gas Distribution.

(F) Global Warming Potential used for all sources shall be those found in 40 CFR Part 98 Subpart A – Global Warming Potentials (100 year Time Horizon).

v. Prior to operation, the Permittee shall develop a written plan for the operation, inspection, maintenance, preventive and corrective measures for minimizing GHG emissions (CH_4 from the natural gas pipeline components and SF_6 emissions from the insulated electrical equipment). At a minimum the plan shall provide for: [Permit No. 015-0299]

(A) Implementation of daily auditory/visual/olfactory inspections including the use of a leak detection alarm system of the natural gas piping components supplying natural gas to the combustion turbine/duct burner;

(B) An installed leak detection system to include audible alarms to identify SF_6 leakage from the circuit breakers;

(C) Inspection for SF_6 emissions from the insulated electrical equipment on at least a monthly basis.

vi. The following calculation method shall be used: [Permit No. 015-0299]

(A) Determine total hourly CO_2 mass emission (lbs) for each hour of the operating month using CO_2 CEMs.

(B) Determine total hourly net electrical output in terms of MWh for each hour of the operating month.

(C) Sum the hourly CO_2 mass emissions calculated for the month.

(D) Sum the total net output calculated for the operating month.

(E) Divide the total CO_2 mass emissions calculated for the month by the total net output calculated for the operating month.

(F) Add the quotient to the sum of the quotient of the previous 11 operating month and divide by 12 to determine the consecutive 12 month total (rolling 1 month basis).

vii. Recurrent stack testing of CO_2 shall be performed within five years from the date of the previous stack test. Testing shall be as described in this Title V permit with the following exceptions: [Permit No. 015-0299]

(A) After the initial performance test, stack testing may not be required for pollutants requiring CEM.

(B) The commissioner retains the right to require stack testing of any pollutant at any time to demonstrate compliance.

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding 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. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

ii. The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of tons from the turbine and HVAC/space heaters (GEU-1) combined to show compliance. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. Emissions during startup and shutdown shall be counted towards the annual emission limitation. [Permit No. 015-0299]

iii. The Permittee shall keep records of the electrical output of the plant (net). [Permit No. 015-0299]

iv. The Permittee shall keep records of the inspections, maintenance, preventive and corrective measures for minimizing GHG emissions from the natural gas pipeline components and the insulated electrical equipment. The records shall include: [Permit No. 015-0299]

(A) The name of the person conducting the inspection/maintenance;

(B) The date that the inspection/maintenance was conducted;

(C) The results and actions taken;

(D) The leak detection method used; and

(E) The amount of SF_6 added (if any) to the electrical equipment.

v. The Permittee shall keep monthly records of the audible alarms from the SF_6 leak detection system and inspections for the insulated electrical equipment. The records shall include: [Permit No. 015-0299]

(A) The name of the person conducting inspection/maintenance;

(B) The date the inspection/maintenance took place; and

(C) The results or actions taken.

vi. The Permittee shall keep records of stack testing reports. [Permit No. 015-0299]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr. [Permit No. 015-0299]

ii. The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

14. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee is not required to demonstrate compliance with the short-term emission limits during the initial shakedown period for ULSD. [Permit No. 015-0299]

ii. Emissions during the initial shakedown period for ULSD shall be counted towards the annual emission limits. [Permit No. 015-0299]

iii. The shakedown period shall not extend beyond 180 days after first firing ULSD. [Permit No. 015-0299]

iv. The Permittee shall operate and maintain the turbine, duct burner, air pollution control equipment in accordance with the most recent specific and written recommendations supplied by the equipment manufacturer. [Permit No. 015-0299]

v. Each watt meter, steam flow meter, and each pressure or temperature measurement device shall be installed, calibrated, maintained, and operated according to manufacturer's instructions. [40 CFR §60.4345(d)]

b. Monitoring and Testing Requirements

The Permittee shall perform inspections of the SCR and oxidation catalysts as recommended by the manufacturer. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall keep records documenting the first firing of ULSD on the turbine. [Permit No. 015-0299]

ii. The Permittee shall keep records of the emissions of the turbine (ULSD)/duct burner (natural gas) during the initial shakedown period for ULSD. Emissions during shakedown shall be calculated using good engineering judgement and the best data and methodology available for estimating such emissions. [Permit No. 015-0299]

iii. The Permittee shall keep records of the inspection and maintenance of the SCR and oxidation catalysts. The records shall include: [Permit No. 015-0299]

(A) the name of the person;

(B) the date;

(C) the results or actions; and

(D) the date the catalyst is replaced.

iv. The Permittee shall keep records of all repairs/replacement of parts and other maintenance activities for the equipment. [Permit No. 015-0299]

v. The Permittee shall keep records of the manufacturer written recommendations for operation and maintenance of the turbine/duct burner and air pollution control equipment. [Permit No. 015-0299]

vi. The Permittee shall keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 015-0299]

(A) the date and time of the exceedance;

(B) a detailed description of the exceedance; and

(C) the duration of the exceedance.

vii. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all of the continuous monitoring equipment described in 40 CFR §60.4345(d). [40 CFR §60.4345(e)]

viii. For purposes of identifying excess emissions: all required steam flow rate, temperature, pressure, and megawatt data shall be reduced to hourly averages. [40 CFR §60.4350(e)]

ix. The Permittee shall keep a certified copy of Permit No. 015-0299 on the premises at all times, and shall make it available upon request of the commissioner for the duration of Permit No. 015-0299. Permit No. 015-0299 shall also be available for public inspection during regular business hours. [Permit No. 015-0299]

x. The Permittee shall keep all records required by Permit No. 015-0299 for a period of no less than five years and shall submit such records to the commissioner upon request. [Permit No. 015-0299]

xi. The Permittee shall make and keep the following records: The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]

d. Reporting Requirements

i. The Permittee shall notify the commissioner in writing of any exceedance of an emissions limitation or operating parameter, 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: [Permit No. 015-0299]

(A) For any hazardous air pollutant, no later than 24 hours after such exceedance commenced; and

(B) For any other regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

ii. The Permittee shall notify the commissioner in writing of any malfunction of the stationary gas turbine/duct burner, the air pollution control equipment or the continuous monitoring system. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [Permit No. 015-0299]

(A) a description of the malfunction and a description of the circumstances surrounding the cause or likely cause of such malfunction; and

(B) a description of all corrective actions and preventive measures taken and/or planned with respect to such malfunction and the dates of such actions and measures.

iii. The Permittee shall submit reports of excess emissions and monitor downtime, in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including start-up, shutdown, and malfunction. [40 CFR §60.4375(a)]

iv. For the purpose of reports required under 40 CFR §60.7(c), periods of excess emissions and monitor downtime that shall be reported and are defined for turbines using continuous emission monitoring, as described in 40 CFR §§60.4335(b) and 60.4345: [40 CFR §60.4380(b)]

(A) A period of monitor downtime is any unit operating hour in which water or steam is injected into the turbine, but the essential parametric data needed to determine the steam or water to fuel ratio are unavailable or invalid. [40 CFR §60.4380(b)(2)]

v. All reports required under 40 CFR §60.7(c) shall be postmarked by the 30th day following the end of each six month period. [40 CFR §60.4395]

vi. The Permittee shall notify the commissioner, in writing, of the first firing of ULSD. Such written notifications shall be submitted no later than 30 days after the subject event. [Permit No. 015-0299]

vii. The Permittee shall submit notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127. [Permit No. 015-0299]

15. Operation and Maintenance (O & M) -Startup & Shutdown and Transient

a. Limitation or Restriction

i. The Permittee shall operate and maintain the turbine, duct burner, air pollution control equipment and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during, startup, shutdown and malfunction. [Permit No. 015-0299; 40 CFR §60.4333(a)]

ii. The Permittee shall immediately institute shutdown of the turbine in the event where emissions are in excess of an emission limit listed in Section III.A of this Title V permit that cannot be corrected within three hours of when the emission exceedance was identified. [Permit No. 015-0299]

iii. No period of Transient operation shall exceed 60 consecutive minutes. [Permit No. 015-0299]

iv. The Permittee shall minimize emissions during periods of startup and shutdown by the following work practices and time constraints: [Permit No. 015-0299]

(A) Start the ammonia injection as soon as minimum catalyst temperature is reached;

(B) The oxidation catalyst shall not be bypassed during startup or shutdown; and

(C) Emissions during these periods shall be counted towards the annual emission limits stated herein.

v. The Permittee shall not exceed a total of 500 hours of cold startups, warm startups, hot startups and shutdown per calendar year. [Permit No. 015-0299]

b. Monitoring Requirements

Record keeping specified in Section III.A.15.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

i. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the stationary gas turbine/duct burner; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: [Permit No. 015-0299; 40 CFR §60.7(b)]

(A) type of event (startup, shutdown, or malfunction)

(B) if a startup, then what kind (hot, warm, cold);

(C) equipment affected;

(D) date of event, start time and end time;

(E) duration of event (minutes); and

(F) fuel being used during event.

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)]

16. Operation-Stack Testing

a. Limitation or Restriction

i. Maximum Heat Input Capacities at Given Ambient Temperatures for Natural Gas as applicable during performance testing: [Permit No. 015-0299]

Actual Ambient Temperature (T_{ACT}) (°F)	Heat Input (Q) for Combustion Turbine without Duct Burner (MMBTU/hr (HHV))	Heat Input (Q) for Duct Burner (MMBTU/hr (HHV))
0	3,292	267
20	3,281	267
35	3,245	267
50	3,138	267
59	3,128	267
80	3,096	267
90	3,043	267
100	2,967	267

ii. Maximum Heat Input Capacities at Given Ambient Temperatures for ULSD: [Permit No. 015-0299]

Actual Ambient Temperature (T_{ACT}) (°F)	Heat Input (Q) for Combustion Turbine without Duct Burner (MMBTU/hr (HHV))	Heat Input (Q) for Duct Burner (MMBTU/hr (HHV))
0	3,439	267
20	3,422	267
35	3,396	267
50	3,348	267
59	3,321	267
80	3,281	267
90	3,199	267
100	3,079	267

iii. The Permittee shall perform one set of tests on the turbine for the following scenarios:

[Permit No. 015-0299]

(A) Mode 1: turbine on natural gas; no duct firing

(B) Mode 2: turbine and duct burner on natural gas

(C) Mode 3: turbine on ULSD; no duct firing

(D) Mode 4: turbine on ULSD; duct firing on natural gas

b. Monitoring and Testing Requirements

i. For the purpose of determining maximum heat input of the turbine and including the duct burner as applicable during performance testing, the following equation may be used when the actual ambient temperature is not specified in Section III.A.16.a.i or ii of this Title V permit:
[Permit No. 015-0299]

MHI_T: $Q_1 - [(T_{Act} - T_1)/(T_2 - T_1)] \times (Q_1 - Q_2)$

Where:
MHI_T: Turbine or duct burner maximum heat input at ambient temperature (°F)
T_{Act}: Actual ambient temperature
T_1: Temperature value from Section III.A.16.a.i or ii of this Title V permit that is below T_{Act}
T_2: Temperature value from Section III.A.16.a.i or ii of this Title V permit that is above T_{Act}
Q_1: Maximum Heat Input value from Section III.A.16.a.i or ii of this Title V permit at corresponding T_1
Q_2: Maximum Heat Input value from Section III.A.16.a.i or ii of this Title V permit at corresponding T_2

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.A.16.a of this Title V permit. [RCSA §22a-174-33(j)(1)(K)]

d. Reporting Requirements

The Permittee shall submit test results within 60 days after completion of testing. [Permit No. 015-0299]

17. Acid Rain

See Section III.G of this Title V permit

B. EU-51 Victory Energy Natural Gas Fired Auxiliary Boiler with Ultra Low NO_x Burners and FGR (80 MMBtu/hr)
Subject to: Permit No. 015-0300, 40 CFR Part 60 Subpart Dc and 40 CFR Part 63 Subpart DDDDD

1. Fuel and Maximum Fuel Consumption

a. Limitation or Restriction

i. The boiler's maximum fuel consumption over any consecutive 12 month period shall not exceed 687 MMscf. [Permit No. 015-0300]

ii. The sulfur content of the natural gas shall not exceed 0.5 grains/100 scf. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

The Permittee shall continuously monitor fuel consumption to the boiler using a non-resettable totalizing fuel meter. [Permit No. 015-0300]

c. Record Keeping Requirements

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.
[Permit No. 015-0300; 40 CFR §60.48c(g)(2); 40 CFR §63.7555(a)(3)]

ii. The Permittee shall keep records of the fuel quality characteristics in a current, valid purchase contract, tariff sheet, or transportation contract for the fuel specifying the maximum total sulfur content for the natural gas or periodic fuel sampling. [Permit No. 015-0300]

d. Reporting Requirements

i. The Permittee shall submit notification of the date of construction or reconstruction and actual startup, as provided by 40 CFR §60.7. This notification shall include: [40 CFR §§60.48c(a)(1)-(3)]

(A) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility;

(B) If applicable, a copy of any federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 40 CFR §60.42c, or 40 CFR §60.43c; and

(C) The annual capacity factor at which the Permittee anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

2. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limit: 0.48 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 2.1 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Guaranteed Vendor Emissions Factor.

[Permit No. 015-0300]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month PM/ PM_{10}/ $PM_{2.5}$ 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. [Permit No. 015-0300]

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)]

3. SO_2

a. Limitation or Restriction

i. The Permittee shall not exceed the following SO_2 emission limit: 0.12 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual SO_2 emission limit: 0.5 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Calculated from fuel sulfur content. [Permit No. 015-0300]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

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. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x emission limits:
[Permit No. 015-0300]

(A) 0.72 lb/hr

(B) 7.0 ppmvd @ 3% O_2

ii. The Permittee shall not cause or exceed the following annual NO_x emission limit: 3.2 Tons per consecutive 12 months. [Permit No. 015-0300]

iii. The Permittee shall not exceed the following NO_x emission limits:
[RCSA §§22a-174-22e(d)(3)(C)]

(A) 0.05 lb/MMBtu (24 hour daily average)

b. Monitoring and Testing Requirements

i. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website.
[Permit No. 015-0300; RCSA §22a-174-22e(d)(12); RCSA §22a-174-22e(l)(1)(A)]

ii. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: stack testing data. [Permit No. 015-0300]

iii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0300]

iv. Recurrent stack testing for NO_x shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

v. The Permittee shall conduct the emission test required by RCSA §22a-174-22e(l) following the initial emissions test on a date after May 31, 2023 and no later than June 1, 2025. Subsequently, the Permittee shall conduct emission tests within every 63 calendar months following the date the previous emission test was conducted or the date the previous emission test was required to be conducted, whichever is earlier. [RCSA §22a-174-22e(l)(5)]

vi. Each emission test shall be conducted in accordance with RCSA §22a-174-5 and compliance with the emissions limitations in RCSA §22a-174-22e shall be determined based on the average of three one-hour tests, each performed over a consecutive 60-minute period except as follows:
[RCSA §22a-174-22e(l)(6)]

(A) If the commissioner determines that three one-hour tests are not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing where compliance with the emissions limitations of this section shall be

determined based on the average of test runs shorter than a one-hour period. For the first time that an emissions unit is tested with a shorter than one-hour test run as provided in RCSA §22a-174-22e(l), approval of the commissioner for a shorter than one-hour test run shall be received prior to testing by submission of a request to the commissioner at least 120 days prior to the scheduled testing. The request shall specify a test run duration and describe why a shorter time period is necessary. [RCSA §22a-174-22e(l)(6)(B)]

vii. The Permittee shall demonstrate compliance with the emissions limitations of RCSA §22a-174-22e using sampling and analytical procedures under 40 CFR Part 60, Appendix A or, for affected units, under 40 CFR Part 75, or under procedures in RCSA §22a-174-5(d). Sampling shall be conducted when the emission unit is at normal operating temperature and, unless allowed otherwise by the commissioner in a permit or order, is operating at or above 90% of maximum capacity, except as follows: [RCSA §§22a-174-22e(l)(7)(A) and (B)]

(A) If the commissioner determines that operating at or above 90% of maximum capacity for an emission unit during sampling is not reasonable given the location, configuration or operating conditions of an emission unit, the commissioner may approve testing of an emission unit at an alternative maximum capacity where compliance with the emissions limitations of RCSA §22a-174-22e(d) shall be determined based on operating at or above 90% of the alternative maximum capacity approved by the commissioner; and

(B) Any emission unit that has operated in excess of 100% of its maximum capacity at any time since the most recent performance test performed pursuant to RCSA §22a-174-22e shall be tested when the emission unit is operating at or above 90% of its highest operating rate since the most recent performance test performed pursuant to RCSA §22a-174-22e.

viii. If the Permittee is unable to conduct scheduled emission testing required by RCSA §22a-174-22e due to force majeure, the Permittee shall conduct the required emission testing as soon as practicable after the force majeure event occurs. [RCSA §22a-174-22e(l)(8)]

ix. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

x. The Permittee shall calculate an emission unit's non-ozone season emission rate as the sum of the emission unit's NO_x emissions during the period from October 1 through April 30, inclusive, divided by the sum of the emission unit's heat input during the period of October 1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]

xi. The Permittee shall calculate an emission unit's ozone season emission rate as the sum of the emission unit's NO_x emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the emission unit's heat input while firing the applicable fuel during the period from May 1 through September 30 inclusive. [RCSA §22a-174-22e(d)(20)]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous

month. [Permit No. 015-0300]

ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emission unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

iii. The Permittee shall make and keep the following stack testing records:
[Permit No. 015-0300; RCSA §22a-174-22e(j)(2)]

(A) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the persons performing the measurements, the testing methods used, the operating conditions at the time of testing, and the results of such testing; [RCSA §22a-174-22e(j)(2)(C)]

(B) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and [RCSA §22a-174-22e(j)(2)(F)]

(C) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e. [RCSA §22a-174-22e(j)(2)(G)]

d. Reporting Requirements

i. The Permittee shall submit test results within 30 days after completion of testing.
[Permit No. 015-0300]

ii. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 3% O_2.
[Permit No. 015-0300]

iii. Not more than 60 days after the completion of emission tests conducted under RCSA §22a-174-22e(l), the Permittee shall submit a written report of the results of such testing to the commissioner. [RCSA §22a-174-22e(k)(1)]

5. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following VOC emission limits:
[Permit No. 015-0300]

(A) 0.32 lb/hr

(B) 0.004 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual VOC emission limit: 1.4 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0300]

ii. Recurrent stack testing for VOC shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

iii. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

iv. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

d. Reporting Requirements

i. The Permittee shall submit test results within 30 days after completion of testing. [Permit No. 015-0300]

ii. Stack emissions test results shall be reported in the following units: lb/hr and lb/MMBtu. [Permit No. 015-0300]

6. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO emission limits: [Permit No. 015-0300]

(A) 2.88 lb/hr

(B) 50 ppmvd @ 3% O_2

ii. The Permittee shall not cause or exceed the following annual CO emission limit: 12.6 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0300]

ii. Recurrent stack testing for CO shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

iii. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

iv. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0300]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

ii. The Permittee shall keep records of stack testing reports. [Permit No. 015-0300]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following units: lb/hr and ppmvd @ 3% O_2. [Permit No. 015-0300]

ii. The Permittee shall submit test results within 30 days after completion of testing. [Permit No. 015-0300]

7. Lead (Pb)

a. Limitation or Restriction

i. The Permittee shall not exceed the following Pb emission limit: 3.9 E-05 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual Pb emission limit: 1.7E-04 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and *Testing Requirements*

i. Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: AP-42, Table 1.4-2, July 1998. [Permit No. 015-0300]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0300]

c. Record *Keeping Requirements*

The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

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. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following H_2SO_4 emission limit: 0.02 lb/hr. [Permit No. 015-0300]

ii. The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.08 Tons per consecutive months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Calculated from fuel sulfur content. [Permit No. 015-0300]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0300]

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. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0300]

b. Monitoring Requirements

Record keeping specified in Section III.B.9.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)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.B.9.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)]

10. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limits:
[Permit No. 015-0300]

(A) 9,368 lb/hr

(B) 117 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 41,031 Tons per consecutive 12 months. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: 40 CFR Part 98, Tables A-1 (Dec 2014), C-1 and C-2 (Nov 2013). [Permit No. 015-0300]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month.
[Permit No. 015-0300]

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)]

11. Opacity

a. Limitation or Restriction

i. This equipment shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part 60, Appendix A, Reference Method 9. [Permit No. 015-0300]

ii. This equipment shall not exceed 40% opacity as measured by 40 CFR Part 60, Appendix A, Reference Method 9, reduced to a one-minute block average. [RCSA §22a-174-18(b)(1)(B)]

b. Monitoring and Testing Requirements

i. Stack emission testing shall be performed in accordance with the Emission Test Guidelines available on the DEEP website. [Permit No. 015-0300]

ii. Recurrent stack testing for opacity shall be conducted within five years from the date of the previous stack test or when it was due. [Permit No. 015-0300]

iii. Demonstration of compliance with the opacity emission limit may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: Stack Testing Data. [Permit No. 015-0300]

c. Record Keeping Requirements

The Permittee shall keep records of stack testing reports. [Permit No. 015-0300]

d. Reporting Requirements

i. Stack emissions test results shall be reported in the following unit: %. [Permit No. 015-0300]

ii. The Permittee shall submit test results within 30 days after completion of testing. [Permit No. 015-0300]

12. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee shall operate and maintain the boiler/control equipment in accordance with manufacturer's specifications and written recommendations. [Permit No. 015-0300; 40 CFR §63.7500(a)(3)]

ii. The Permittee shall properly operate the flue gas recirculation (FGR) system at all times that this equipment is in operation and emitting air pollutants. [Permit No. 015-0300]

b. Monitoring and Testing Requirements

The Permittee shall perform inspections of the low NO_x burners and flue gas recirculation system as recommended by the manufacturer. [Permit No. 015-0300]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of all maintenance and tune-up activities for the boiler. [Permit No. 015-0300]

ii. The Permittee shall make and keep records of all inspections of the low NO_x burners and flue gas recirculation system. [Permit No. 015-0300]

iii. The Permittee shall make and keep records of manufacturer written specifications and recommendations for operation and maintenance. [Permit No. 015-0300]

iv. The Permittee shall keep all records required by Permit No. 015-0300 for a period of no less than five years and shall submit such records to the commissioner upon request. [Permit No. 015-0300]

v. The Permittee shall make and keep records of the date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]

d. Reporting Requirements

The Permittee shall submit notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127. [Permit No. 015-0300]

13. Work Practice

a. Limitation or Restriction

i. The Permittee shall comply with 40 CFR Part 63 Subpart DDDDD upon startup of the boiler or process heater. [40 CFR §63.7510(g); 40 CFR §63.7495(a)]

ii. The Permittee shall conduct a tune-up of the boiler annually to demonstrate continuous compliance. Each annual tune-up shall be no more than 13 months after the previous tune-up. [RCSA §22a-174-22e(i); 40 CFR §63.7500(a)(1); 40 CFR §63.7510(g); 40 CFR §63.7515(d); 40 CFR §63.7540(a)(10); 40 CFR Part 63 Subpart DDDDD, Table 3, No. 3]

iii. The tune-up shall consist of the following: [40 CFR §§63.7540(a)(10)(i)-(v)]

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

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

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

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

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

iv. If the unit is not operating on the required date for a tune-up, the tune-up shall be conducted within 30 calendar days of startup. [40 CFR §63.7540(a)(13)]

v. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 63 Subpart DDDDD, Table 10.
[40 CFR §63.7565; 40 CFR Part 63 Subpart DDDDD, Table 10]

b. Monitoring and Testing Requirements

The Permittee shall demonstrate continuous compliance with the applicable work practice standards in 40 CFR Part 63 Subpart DDDDD, Table 3. [40 CFR §63.7540(a)]

c. Record Keeping Requirements

i. The Permittee shall make and keep the following records on and after May1, 2018, for each tune up conducted pursuant to RCSA §22a-174-22e(i): [RCSA §§22a-174-22e(j)(2)(E)(i) and (ii)]

(A) The date on which the emission unit is tuned-up; the name, title and affiliation of the person performing the tune-up, and a description of the work performed; and

(B) The procedures used to inspect and perform adjustments.

ii. The Permittee shall make, keep on-site and submit, if requested by the Administrator, an annual report containing the following information:
[40 CFR §§63.7540(a)(10)(vi)(A)-(C)]

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

(B) A description of any corrective actions taken as a part of the tune-up; and

(C) The type and amount of fuel used over the 12 months prior to the tune-up, but only if the unit

was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel used by each unit.

iii. The Permittee shall make and keep the following records: [40 CFR §§63.7555(a)(1)-(3)]

(A) A copy of each notification and report submitted to comply with 40 CFR Part 63 Subpart DDDDD, including all documentation supporting any Initial Notification or Notification of Compliance Status or compliance report submitted, according to the requirements in 40 CFR §63.10(b)(2)(xiv).

(B) Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations as required in 40 CFR §63.10(b)(2)(viii).

(C) The Permittee shall keep a copy of the federally enforceable permit that limits the annual capacity factor to less than or equal to 10% and fuel use records for the days the boiler or process heater was operating.

iv. The Permittee's records shall be in a form suitable and readily available for expeditious review, according to 40 CFR §63.10(b)(1). [40 CFR §63.7560(a)]

v. As specified in 40 CFR §63.10(b)(1), the Permittee shall keep each record for five years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. [40 CFR §63.7560(b)]

vi. The Permittee shall keep each record on site, or they shall be accessible from on-site (for example, through a computer network), for at least two years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR §63.10(b)(1). The Permittee can keep the records off site for the remaining three years. [40 CFR §63.7560(c)]

vii. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 63 Subpart DDDDD, Table 10. [RCSA §22a-174-33(j)(1)(K)(ii)]

d. Reporting Requirements

i. The Permittee shall submit to the Administrator all of the applicable notifications in 40 CFR §§63.7(b) and (c), 40 CFR §§63.8(e), (f)(4) and (6), and 40 CFR §§63.9(b) through (h) by the dates specified. [40 CFR §63.7495(d); 40 CFR §63.7545(a)]

ii. The Permittee shall submit an annual compliance report instead of a semi-annual compliance report, as specified below: [40 CFR §63.7550(a); 40 CFR §§63.7550(b)(3) and(4); 40 CFR Part 63 Subpart DDDDD, Table 9]

(A) Annual compliance reports shall cover the applicable one year period from January 1 to December 31.

(B) Annual compliance reports shall be postmarked or submitted no later than January 31.

iii. The annual compliance report shall contain the following information: [40 CFR §63.7550(c)(1); 40 CFR §§63.7550(c)(5)(i)-(iv), (xiv) and (xvii)]

(A) Company and Facility name and address;

(B) Process unit information, emissions limitations, and operating parameter limitations;

(C) Date of report and beginning and ending dates of the reporting period;

(D) The total operating time during the reporting period;

(E) Include the date of the most recent tune-up for each unit subject to only the requirement to conduct an annual tune-up according to 40 CFR §63.7540(a)(10). Include the date of the most recent burner inspection if it was not done annually and was delayed until the next scheduled or unscheduled unit shutdown; and

(F) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

iv. The Permittee shall submit all reports required by 40 CFR Part 63 Subpart DDDDD, Table 9 electronically to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The Permittee shall use the appropriate electronic report in CEDRI for this subpart. Instead of using the electronic report in CEDRI for 40 CFR Part 63 Subpart DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (*http://www.epa.gov/ttn/chief/cedri/index.html*), once the XML schema is available. If the reporting form specific to 40 CFR Part 63 Subpart DDDDD is not available in CEDRI at the time that the report is due, the Permittee shall submit the report to the Administrator at the appropriate address listed in 40 CFR §63.13. The Permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR §63.7550(h)(3)]

C. EU-52 Caterpillar 3516C Diesel Fired Emergency Generator (19.1 MMBtu/hr)
Subject to: Permit No. 015-0301, 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ
RICE NSPS Designation: Emergency, New CI, Model year 2007 and later, < 30 l/cyl, Constructed after 7/11/05 and Manufactured after 4/1/06

1. Fuel and Maximum Hours of Operation

a. Limitation or Restriction

i. The engine’s maximum fuel consumption over any consecutive 12 month period shall not exceed 41,400 gallons. [Permit No. 015-0301]

ii. The engine’s maximum hours of operation over any consecutive 12 month period shall not exceed 300 hours. [Permit No. 015-0301]

iii. The sulfur content of the ULSD fuel oil shall not exceed 0.0015% by weight.
[Permit No. 015-0301; RCSA §22a-174-19b(d)(2); 40 CFR §60.4207(b); 40 CFR §1090.305(b)]

iv. The diesel fuel is subject of the following cetane index or aromatic content per gallon standards:
[40 CFR §60.4207(b); 40 CFR §§1090.305(c)(1) and (2)]

(A) A minimum cetane index of 40; or

(B) A maximum aromatic content of 35 volume percent.

v. The Permittee shall operate the emergency stationary RICE according to the requirements in 40 CFR §§63.6640(f)(1)-(4). In order for the engine to be considered an emergency stationary RICE under 40 CFR Part 63 Subpart ZZZZ, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§63.6640(f)(1)-(4), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §§63.6640(f)(1)-(4), the engine will not be considered an emergency engine under 40 CFR Part 63 Subpart ZZZZ and shall meet all requirements for non-emergency engines. [40 CFR §63.6640(f)]

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

vi. The Permittee may operate the emergency stationary RICE for the purpose specified in 40 CFR §63.6640(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR §§63.6640(f)(3) and (4) counts as part of the 100 hours per calendar year allowed by 40 CFR §63.6640(f)(2). [40 CFR §63.6640(f)(2)]

(A) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)(i)]

vii. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR §63.6640(f)(2). The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §63.6640(f)(3)]

viii. Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR §63.6640(f)(2). Except as provided in 40 CFR §63.6640(f)(4)(ii), the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §63.6640(f)(4)]

(A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR §63.6640(f)(4)(ii)]

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator. [40 CFR §63.6640(f)(4)(ii)(A)]

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR §63.6640(f)(4)(ii)(B)]

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
[40 CFR §63.6640(f)(4)(ii)(C)]

(4) The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR §63.6640(f)(4)(ii)(D)]

(5) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee. [40 CFR §63.6640(f)(4)(ii)(E)]

b. Monitoring and Testing Requirements

i. The Permittee shall continuously monitor fuel consumption by this equipment using a non-resettable totalizing fuel meter. [Permit No. 015-0301; 40 CFR §60.4209(a)]

ii. The Permittee shall monitor the number of hours that this equipment is in operation. [Permit No. 015-0301]

c. Record Keeping Requirements

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. [Permit No. 015-0301]

ii. The Permittee shall keep records of monthly and consecutive 12 month hours of operation. The consecutive 12 month hours of operation shall be determined by adding the current month's hours of operation to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

iii. 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.
[Permit No. 015-0301; RCSA §22a-174-19b(g)(3)]

iv. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years in 40 CFR Part 60 Subpart IIII, Table 5, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through

the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR §60.4214(b)]

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. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limits:
[Permit No. 015-0301]

(A) 0.3 lb/hr

(B) 0.15 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.04 Tons per consecutive 12 months. [Permit No. 015-0301]

iii. The Permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR §60.4202(a)(2) (i.e. 0.30 g/ kW-hr), for all pollutants, for the same model year and maximum engine power for this engine.
[40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR Part 1039, Appendix I]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.5}$ 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. [Permit No. 015-0301]

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)]

3. SO_2

a. Limitation or Restriction

i. The Permittee shall not exceed the following SO_2 emission limit: 0.2 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual SO_2 emission limit: 0.03 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using emission factors from the following sources: Calculated from fuel sulfur content. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

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. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x emission limit: 42.3 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual NO_x emission limit: 6.4 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

[Permit No. 015-0301]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emissions unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

iii. The Permittee shall make and keep the following records: [RCSA §§22a-174-22e(j)(2)(F) and (G)]

(A) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and

(B) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

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. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following VOC emission limit: 1.0 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual VOC emission limit: 0.15 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units

of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

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. NO_x + Non Methane Hydro Carbon (NMHC)

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x +NMHC emission limit:4.8 g/hp-hr. [Permit No. 015-0301]

ii. The Permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR §60.4202(a)(2) (i.e. 4.0 g/kW-hr), for all pollutants, for the same model year and maximum engine power for this engine.
[40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR Part 1039, Appendix I]

b. Monitoring Requirements

Record keeping specified in Section III.C.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.C.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. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO emission limit:
[Permit No. 015-0301]

(A) 3.5 lb/hr

(B) 2.6 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual CO emission limit: 0.52 Tons per consecutive 12 months. [Permit No. 015-0301]

iii. The Permittee shall comply with the emission standards for new nonroad CI engines in 40 CFR §60.4202(a)(2) (i.e. 5.0 g/kW-hr), for all pollutants, for the same model year and maximum engine power for this engine.
[40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR Part 1039, Appendix I]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using emission factors from the following sources: EPA Certified Vendor Emissions Factor. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

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. Lead (Pb)

a. Limitation or Restriction

i. The Permittee shall not exceed the following Pb emission limit: 0.0003 lb/hr.
[Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual Pb emission limit: 0.00004 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and *Testing Requirements*

i. Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Fifth Edition, Volume I, Chapter 3.1, April 2000. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

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. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following H_2SO_4 emission limit: 0.0005 lb/hr. [Permit No. 015-0301]

ii. The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.00008 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using emission factors from the following sources: 2.45 (%S) lb/1,000 gallons where S is the maximum percent sulfur by weight; CTDEEP Memo, November 27, 1987. [Permit No. 015-0301]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0301]

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. Hazardous Air Pollutant (HAP)

a. *Limitation or Restriction*

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0300]

b. *Monitoring Requirements*

Record keeping specified in Section III.C.10.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)(l)(K)(ii)]

c. *Record Keeping Requirements*

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.C.10.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)]

11. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limits: [Permit No. 015-0301]

(A) 3,117 lb/hr

(B) 163 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 468 Tons per consecutive 12 months. [Permit No. 015-0301]

b. Monitoring and Testing Requirements

a. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using emission factors from the following sources: 40 CFR Part 98 Subpart C, Table C-1 and Table C-2 (Nov 2013). [Permit No. 015-0301]

b. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0301]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's

emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month.
[Permit No. 015-0301]

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)]

12. Opacity

a. Limitation or Restriction

Opacity resulting from operation of this engine shall not exceed 10% 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.
[Permit No. 015-0301; 40 CFR §60.4202(a)(2); 40 CFR §60.4205(b); 40 CFR Part 86 Subpart I, 40 CFR §1039.105(b); 40 CFR §1039.501(c)]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.C.12.c of this Title V permit shall be sufficient to meet other Monitoring and Testing Requirements pursuant to RCSA §22a-174-33.
[RCSA §22a-174-33(j)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.C.12.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)]

13. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit No. 015-0301; 40 CFR §60.4211(a)(1)]

ii. The Permittee shall operate and maintain this equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction. [Permit No. 015-0301]

iii. The Permittee shall only operate this equipment in accordance with the definition of emergency engine as defined in RCSA §22a-174-1, et seq. [Permit No. 015-0301]

iv. The Permittee shall not operate the subject engine for routine scheduled testing or maintenance during days when ambient ozone is forecasted by the commissioner to be "moderate unhealthy for sensitive groups" to "very unhealthy" anywhere in Connecticut. [Permit No. 015-0301]

(A) Forecast Information-Official ambient ozone information can be obtained by calling: [Permit No. 015-0301]

(1) (860) 424-4167 Department's Bureau of Air Management Monitoring Section (Recorded Message Updated daily at 3:00 p.m.)

(2) (860) 424-3027 Department's Bureau of Air Management Monitoring Section (For additional air quality information)

v. The Permittee shall operate and maintain stationary CI ICE that achieves the emission standards as required in 40 CFR §60.4205 over the entire life of the engine. [40 CFR §60.4206]

vi. The Permittee shall do all of the following, except as permitted under paragraph 40 CFR §60.4211(g): [40 CFR §§60.4211(a)(2) and (3)]

(A) Change only those emission-related settings that are permitted by the manufacturer; and

(B) Meet the applicable requirements of 40 CFR Part 1068.

vii. The Permittee shall 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 shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g). [40 CFR §60.4211(c)]

viii. The Permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR §§60.4211(f)(1)-(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§60.4211(f)(1)-(3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §§60.4211(f)(1)-(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII and shall meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]

ix. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60.4211(f)(1)]

x. The Permittee may operate the emergency stationary ICE for any combination the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR §60.4211(f)(2). [40 CFR §60.4211(f)(2)]

(A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.

The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR §60.4211(f)(2)(i)]

xi. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR §60.4211(f)(2). Except as provided in 40 CFR §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §60.4211(f)(3)]

(A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR §60.4211(f)(3)(i)]

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR §60.4211(f)(3)(i)(A)]

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR §60.4211(f)(3)(i)(B)]

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR §60.4211(f)(3)(i)(C)]

(4) The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR §60.4211(f)(3)(i)(D)]

(5) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee. [40 CFR §60.4211(f)(3)(i)(E)]

xii. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: [40 CFR §60.4211(g)(3)]

(A) The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within 1 year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or three

years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

(B) The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 60 Subpart IIII, Table 8.
[40 CFR §60.4218; 40 CFR Part 60 Subpart IIII, Table 8]

b. Monitoring and Testing Requirements

Record keeping specified in Section III.C.13.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)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall keep records of the inspection and maintenance for this equipment. The records shall include: [Permit No. 015-0301; RCSA §22a-174-22e(j)(2)(B)]

(A) the name of the person conducting the inspection or maintenance;

(B) the date of the inspection or maintenance; and

(C) the results or actions taken.

ii. The Permittee shall keep records of the manufacturer's specifications and written recommendations. [Permit No. 015-0301]

iii. The Permittee shall keep all records required by Permit No.105-0301 for a period of no less than five years and shall submit such records to the commissioner upon request.
[Permit No. 015-0301]

iv. The Permittee shall make and keep records sufficient to show compliance with applicable General Provisions requirements of 40 CFR Part 60 Subpart IIII, Table 8.
[RCSA §22a-174-33(j)(1)(K)(ii)]

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)]

D. EU-53 Cummins CFP9E-F60 Emergency Fire Pump Engine (2.6 MMBtu/hr)
Subject to: Permit No. 015-0299, 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ
RICE NSPS Designation: Fire Pump Engine, < 30 l/cyl , 2009 Model Year and later

1. Fuel and Maximum Hours of Operation

a. Limitation or Restriction

i. The Permittee shall only use ULSD fuel in the engine. [Permit No. 015-0299]

ii. The engine's maximum hours of operation over any consecutive 12 month period shall not exceed 295 hours. [Permit No. 015-0299]

iii. The sulfur content of the ULSD fuel oil shall not exceed 0.0015% by weight. [Permit No. 015-0299; RCSA §22a-174-19b(d)(2); 40 CFR §60.4207(b); 40 CFR §1090.305(b)]

iv. The diesel fuel is subject of the following cetane index or aromatic content per gallon standards: [40 CFR §60.4207(b); 40 CFR §1090.305(c)(1) and (2)]

(A) A minimum cetane index of 40; or

(B) A maximum aromatic content of 35 volume percent.

b. Monitoring and Testing Requirements

i. The Permittee shall continuously monitor fuel consumption by this unit using a non-resettable totalizing fuel meter. [Permit No. 015-0299; 40 CFR §60.4209(a)]

ii. The Permittee shall monitor the number of hours that this unit is in operation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall monitor and keep records of monthly and 12 consecutive months operating hours of the emergency fire pump. The 12 consecutive month time period shall be determined by adding the current month's operating hours to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep any of the records listed below to demonstrate the sulfur content of the fuel used: [Permit No. 015-0299]

(A) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or

(B) A copy of the current contract with the fuel supplier supplying the fuel used by the unit that includes the applicable sulfur content of nongaseous fuel as a condition of each shipment.

iii. The Permittee shall maintain records of the sulfur content of the fuel combusted and the quantity purchased for combustion. A written certification or a written contract with a fuel supplier is sufficient to satisfy the requirements of this subdivision if the certification or contract identifies: [RCSA §22a-174-19b(g)(3)]

(A) The name of the fuel seller;

(B) The type of fuel purchased;

(C) The sulfur content of the fuel purchased; and

(D) The method used to determine the sulfur content of the fuel purchased.

iv. If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the Permittee is not required to submit an initial notification. Starting with the model years

in 40 CFR Part 60 Subpart IIII, Table 5, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the Permittee shall keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The Permittee shall record the time of operation of the engine and the reason the engine was in operation during that time. [40 CFR §60.4214(b)]

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. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limits:
[Permit No. 015-0299; 40 CFR §60.4205(c); 40 CFR Part 60 Subpart IIII, Table 4]

(A) 0.1 lb/hr

(B) 0.15 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.014 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor.
[Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.5}$ 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. [Permit No. 015-0299]

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)]

3. NO_x

a. Limitation or Restriction

i. The Permittee shall not exceed the following NO_x emission limit: 1.8 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual NO_x emission limit: 0.3 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall retain all records and reports produced pursuant to RCSA §22a-174-22e for five years. Such records and reports shall be available for inspection at reasonable hours by the commissioner or the Administrator. Such records and reports shall be retained at the premises where the emissions unit is located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1)]

iii. The Permittee shall make and keep the following records: [RCSA §§22a-174-22e(j)(2)(F) and (G)]

(A) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e; and

(B) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.

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. VOC

a. Limitation or Restriction

i. The Permittee shall not exceed the following VOC emission limit: 0.1 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual VOC emission limit: 0.01 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

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. NO_x + Non Methane Hydro Carbon (NMHC)

a. Limitation or Restriction

The Permittee shall not exceed the following NO_x +NMHC emission limit: 3.0 g/hp-hr. [Permit No. 015-0299; 40 CFR §60.4205(c); 40 CFR Part 60 Subpart IIII, Table 4]

b. Monitoring Requirements

Record keeping specified in Section III.D.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)(l)(K)(ii)]

c. Record Keeping Requirements

The Permittee shall maintain records sufficient to determine compliance with the limitation or restriction in Section III.D.5.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)]

6. CO

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO emission limit:
[Permit No. 015-0299; 40 CFR §60.4205(c); 40 CFR Part 60 Subpart IIII, Table 4]

(A) 1.1 lb/hr

(B) 2.6 g/hp-hr

ii. The Permittee shall not cause or exceed the following annual CO emission limit: 0.17 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: EPA Certified Vendor Emissions Factor. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.
[Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

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. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

i. The Permittee shall not exceed the following H_2SO_4 emission limit: 0.0006 lb/hr.
[Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.0001 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: calculated from fuel sulfur content. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

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. Hazardous Air Pollutant (HAP)

a. Limitation or Restriction

This equipment shall not cause an exceedance of the Maximum Allowable Stack Concentration (MASC) for any applicable HAP emitted and listed in RCSA §22a-174-29. [STATE ONLY REQUIREMENT] [Permit No. 015-0299]

b. Monitoring Requirements

Record keeping specified in Section III.D.8.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.D.8.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)]

9. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limits:
[Permit No. 015-0299]

(A) 427 lb/hr

(B) 163 lb/MMBtu

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 63 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using the most recent approved test results for that pollutant, or if unavailable, emission factors from the following source: 40 CFR Part 98 Subpart C, Table C-1 for CO_2 and 40 CFR Part 98 Subpart C, Table C-2 for CO_{2e}. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of tons. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month.
[Permit No. 015-0299]

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. Operation and Maintenance (O & M)

a. Limitation or Restriction

i. The Permittee shall operate and maintain the engine in accordance with the most recent specific and written recommendations supplied by the equipment manufacturer.
[40 CFR §60.4211(a)(1)]

ii. The Permittee shall operate and maintain stationary CI ICE that achieve the emission standards as required in 40 CFR §60.4205 over the entire life of the engine. [40 CFR §60.4206]

iii. The Permittee shall do the following, except as permitted under paragraph 40 CFR §60.4211(g): Change only those emission-related settings that are permitted by the manufacturer.
[40 CFR §60.4211(a)(2)]

iv. The Permittee shall comply by purchasing an engine certified to the emission standards in 40 CFR §60.4205(c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications, except as permitted in 40 CFR §60.4211(g). [40 CFR §60.4211(c)]

v. The Permittee shall operate the emergency stationary ICE according to the requirements in 40 CFR §§60.4211(f)(1)-(3). In order for the engine to be considered an emergency stationary ICE under 40 CFR Part 60 Subpart IIII, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in 40 CFR §§60.4211(f)(1)-(3), is prohibited. If the Permittee does not operate the engine according to the requirements in 40 CFR §60.4211(f)(1)-(3), the engine will not be considered an emergency engine under 40 CFR Part 60 Subpart IIII and shall meet all requirements for non-emergency engines. [40 CFR §60.4211(f)]

vi. There is no time limit on the use of emergency stationary ICE in emergency situations. [40 CFR §60.4211(f)(1)]

vii. The Permittee may operate the emergency stationary ICE for any combination the purpose specified in 40 CFR §60.4211(f)(2)(i) for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by 40 CFR §60.4211(f)(3) counts as part of the 100 hours per calendar year allowed by 40 CFR §60.4211(f)(2). [40 CFR §60.4211(f)(2)]

(A) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the Permittee maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year. [40 CFR §60.4211(f)(2)(i)]

viii. Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in 40 CFR §60.4211(f)(2). Except as provided in 40 CFR §60.4211(f)(3)(i), the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity. [40 CFR §60.4211(f)(3)]

(A) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met: [40 CFR §60.4211(f)(3)(i)]

(1) The engine is dispatched by the local balancing authority or local transmission and distribution system operator; [40 CFR §60.4211(f)(3)(i)(A)]

(2) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region. [40 CFR §60.4211(f)(3)(i)(B)]

(3) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines. [40 CFR §60.4211(f)(3)(i)(C)]

(4) The power is provided only to the facility itself or to support the local transmission and distribution system. [40 CFR §60.4211(f)(3)(i)(D)]

(5) The Permittee identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the Permittee. [40 CFR §60.4211(f)(3)(i)(E)]

ix. If the Permittee does not install, configure, operate, and maintain the engine and control device according to the manufacturer's emission-related written instructions, or the Permittee changes emission-related settings in a way that is not permitted by the manufacturer, the Permittee shall demonstrate compliance as follows: [40 CFR §60.4211(g)(3)]

(A) The Permittee shall keep a maintenance plan and records of conducted maintenance and shall, to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions. In addition, the Permittee shall conduct an initial performance test to demonstrate compliance with the applicable emission standards within one year of startup, or within one year after an engine and control device is no longer installed, configured, operated, and maintained in accordance with the manufacturer's emission-related written instructions, or within one year after the Permittee changes emission-related settings in a way that is not permitted by the manufacturer. The Permittee shall conduct subsequent performance testing every 8,760 hours of engine operation or three years, whichever comes first, thereafter to demonstrate compliance with the applicable emission standards.

x. The Permittee shall comply with the applicable General Provisions requirements according to 40 CFR Part 60 Subpart IIII, Table 8. [40 CFR §60.4218; 40 CFR Part 60 Subpart IIII, Table 8]

b. Monitoring Requirements

Record keeping specified in Section III.D.10.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)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall keep records of the manufacturer’s specifications and written recommendations. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance at all times and shall make them available upon request by the commissioner for the duration of this Title V permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

iii. The Permittee shall make and keep the following records: The date and work performed for repairs, replacement of parts and other maintenance. [RCSA §22a-174-22e(j)(2)(B)]

iv. The Permittee shall make and keep records sufficient to show compliance with applicable General

Provisions requirements of 40 CFR Part 60 Subpart IIII, Table 8.
[RCSA §22a-174-33(j)(1)(K)(ii)]

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)]

E. EU-54 Auxiliary Cooling Tower
Subject to: Permit No. 015-0299

1. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

i. The Permittee shall not exceed the following $PM/PM_{10}/PM_{2.5}$ emission limits: 0.16 lb/hr. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.71 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring and Testing Requirements

i. Demonstration of compliance with the above emission limits may be met by calculating the emission rates using the cooling tower flow rate (gallons/min), Total Dissolved Solids (TDS) content of the cooling water and drift rate from the manufacturer. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.5}$ in units of tons. The consecutive 12 month emissions shall be determined by adding 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. [Permit No. 015-0299]

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. Operation and Maintenance (O & M)

a. Limitation or Restriction

There are no O & M limitations or restrictions for this emission unit.

b. Monitoring Requirements

Record keeping specified in Section III.E.2.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)(l)(K)(ii)]

c. Record Keeping Requirements

i. The Permittee shall keep records of the manufacturer's specifications and written recommendations. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance at all times and shall make them available upon request by the commissioner for the duration of this Title V permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

d. Reporting Requirements

The Permittee shall submit notifications to the Supervisor of the Compliance Analysis & Coordination Unit, Enforcement Section, Bureau of Air Management; Department of Energy and Environmental Protection; 79 Elm Street, 5th Floor; Hartford, Connecticut 06106-5127. [Permit No. 015-0299]

F. GEU-1 HVAC/Space Heaters
Subject to: Permit No. 015-0299

1. Fuel Consumption and Units Included in GEU-1

a. Limitation or Restriction

The Permittee shall only use natural gas in the HVAC/space heaters. [Permit No. 015-0299]

b. Monitoring Requirements

The Permittee shall continuously monitor fuel consumption for GEU-1 using a single non-resettable totalizing fuel meter. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall keep records of monthly and consecutive 12 month fuel consumption for GEU-1. 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. [Permit No. 015-0299]

ii. The Permittee shall make and maintain a list of all units included in GEU-1. The list shall include description and maximum rated capacity of the HVAC/space heaters. The Permittee shall update the list within 30 days of a change in the units. [Permit No. 015-0299]

iii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. $PM/PM_{10}/PM_{2.5}$

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual $PM/PM_{10}/PM_{2.5}$ emission limit: 0.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the $PM/PM_{10}/PM_{2.5}$ emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month $PM/PM_{10}/PM_{2.5}$ emissions in units of Tons for all units in GEU-1 combined. 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. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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)]

3. SO_2

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual SO_2 emission limit: 0.05 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the SO_2 emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month SO_2 emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. NO_x

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual NO_x emission limit: 7.6 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the NO_x emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation.

[Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month NO_x emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. CO

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual CO emission limit: 6.4 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the CO emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. VOC

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual VOC emission limit: 0.4 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the VOC emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month VOC emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. Lead (Pb)

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual Pb emission limit: 0.00004 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the Pb emission limits may be met by calculating the emission rates using emission factors from the following sources: AP-42, Sec. 1.4 (July 1998). [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month Pb emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. Sulfuric Acid (H_2SO_4)

a. Limitation or Restriction

The Permittee shall not cause or exceed the following annual H_2SO_4 emission limit: 0.007 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the H_2SO_4 emission limits may be met by calculating the emission rates using emission factors from the following sources: Engineering estimate based on SO_2. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month H_2SO_4 emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such

records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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. Greenhouse Gas Emissions (GHG)

a. Limitation or Restriction

i. The Permittee shall not exceed the following CO_{2e} emission limit: 117 lb/MMBTU. [Permit No. 015-0299]

ii. The Permittee shall not cause or exceed the following annual CO_{2e} emission limit: 9,061 Tons per consecutive 12 months. [Permit No. 015-0299]

b. Monitoring Requirements

i. Demonstration of compliance with the CO_{2e} emission limits may be met by calculating the emission rates using emission factors from the following sources: CO_2 emissions from the auxiliary boiler, emergency generator, emergency fire pump engine and HVAC/space heaters shall be determined using the default emission factors from 40 CFR Part 98 Subpart C - General Stationary Fuel Combustion Sources, Table C-1: Default CO_2 Emission Factors and High Heat Values for Various Types of Fuel. [Permit No. 015-0299]

ii. The commissioner may require other means (e.g. stack testing) to demonstrate compliance with the above emission limits, as allowed by state or federal statute, law or regulation. [Permit No. 015-0299]

c. Record Keeping Requirements

i. The Permittee shall calculate and record the monthly and consecutive 12 month CO_{2e} emissions in units of Tons for all units in GEU-1 combined. The consecutive 12 month emissions shall be determined by adding the current month's emissions to that of the previous 11 months. Such records shall include a sample calculation. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 015-0299]

ii. The Permittee shall keep records on the premises indicating continual compliance with the limitations listed above at all times and shall make them available upon request by the commissioner for the duration of this permit, or for the previous five years, whichever is less. [Permit No. 015-0299]

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)]

G. FEDERAL ACID RAIN PERMIT REQUIREMENTS

1. SO_2 Allowance Allocations and NO_x Requirements for Each Affected Unit

a. EU-50 (General Electric Dual Fired Combustion Turbine, Duct Burner and Heat Recovery Steam Generator)

		2023	2024	2025	2026	2027
EU-50 (Unit BHB5)	SO_2 Allowances under Tables 2,3,or 4 of 40 CFR Part 73	0	0	0	0	0
	NO_x Limit	Not an Affected Unit under 40 CFR Part 76				

2. Phase II Acid Rain Permit Application

The attached Phase II Acid Rain Permit Application is hereby incorporated by reference into this Title V permit. If this Title V permit is in conflict with or inconsistent with the Phase II Acid Rain Permit Application, the Title V permit requirements, including any applicable requirement under 40 CFR Parts 72 through 78, inclusive, shall supersede the Phase II Acid Rain Permit Application and the Permittee shall be governed by and adhere to this Title V permit and any applicable requirement under 40 CFR Parts 72 through 78, inclusive.

H. 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-174-4a(b)(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. **Variances:** 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) .

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

THERE IS NO COMPLIANCE SCHEDULE

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.

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.

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: Compliance Analysis and Coordination Unit, 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 submitted per the procedure required by the applicable requirement or otherwise in a computer-readable format and addressed to: Director, Enforcement and Compliance Assurance Division, U.S. EPA Region I, 5 Post Office Square, Suite 100 (Mailcode: 04-02), Boston, Massachusetts 02109-3912, Attn: Air Compliance 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:

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.

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.

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.

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.

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.