

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.

<b>Title V Permit Number</b>	015-0256-TV
<b>Client/Sequence/Town/Premises Numbers</b>	6859/001/015/862
<b>Date Issued</b>	January 20, 2023
<b>Prior Permit Issued Dates</b>	August 22, 2018 (Original Renewal Date) December 10, 2018 (Revision) August 9, 2019 (Revision) September 7, 2021 (Minor Modification) January 13, 2022 (Minor Modification) August 15, 2022 (Revision)
<b>Expiration Date</b>	August 22, 2023

**Corporation:**

*Bridgeport Energy, LLC*


**Premises Location:**

*10 Atlantic Street, Bridgeport, CT 06604*

**Name of Responsible Officials and Titles:**

*Matthew Denver, General Manager  
 Stephen Biggar, Operations Manager*

All the following attached pages, 2 through 34, are hereby incorporated by reference into this Title V permit.

  
 \_\_\_\_\_ for  
 Tracy Babbidge  
 Acting Deputy Commissioner  
 Bridgeport Energy, LLC

January 20, 2023  
 \_\_\_\_\_  
 Date

## TABLE OF CONTENTS

	PAGE
<b>List of Abbreviations/Acronyms</b> .....	4
<b>Section I. Premises Information/Description</b>	
A. Premises Information.....	5
B. Premises Description.....	5
<b>Section II. Emissions Units Information</b>	
A. Emissions Units Description - Table II.A.....	6
B. Operating Scenario Identification - Table II.B .....	7
<b>Section III. Applicable Requirements and Compliance Demonstration</b>	
A. Grouped Emissions Unit 1 .....	8
B. Emissions Unit 3.....	18
C. Emissions Unit 4.....	21
D. Federal Acid Rain Permit Requirements .....	22
E. 112(r) Accidental Release Requirements.....	23
F. Stratospheric Ozone Depleting Substances Requirements.....	23
G. CAIR NO <sub>x</sub> Ozone Season Trading.....	23
H. Premises-Wide General Requirements .....	23
<b>Section IV. Compliance Schedule - Table IV</b> .....	26
<b>Section V. State Enforceable Terms and Conditions</b> .....	27
<b>Section VI. Title V Requirements</b>	
A. Submittals to the Commissioner & Administrator.....	29
B. Certifications [RCSA §22a-174-33(b)].....	29
C. Signatory Responsibility [RCSA §22a-174-2a(a)] .....	29
D. Additional Information [RCSA §22a-174-33(j)(1)(X), -33(h)(2)] .....	30
E. Monitoring Reports [RCSA §22a-174-33(o)(1)] .....	30
F. Premises Records [RCSA §22a-174-33(o)(2)] .....	31
G. Progress Reports [RCSA §22a-174-33(q)(1)].....	31
H. Compliance Certifications [RCSA §22a-174-33(q)(2)].....	31
I. Permit Deviation Notifications [RCSA §22a-174-33(p)] .....	31
J. Permit Renewal [RCSA §22a-174-33(j)(1)(B)].....	32
K. Operate in Compliance [RCSA §22a-174-33(j)(1)(C)] .....	32
L. Compliance with Permit [RCSA §22a-174-33(j)(1)(G)] .....	32
M. Inspection to Determine Compliance [RCSA §22a-174-33(j)(1)(M)].....	32
N. Permit Availability.....	32
O. Severability Clause [RCSA §22a-174-33(j)(1)(R)] .....	32
P. Need to Halt or Reduce Activity [RCSA §22a-174-33(j)(1)(T)].....	33
Q. Permit Requirements [RCSA §22a-174-33(j)(1)(V)] .....	33
R. Property Rights [RCSA §22a-174-33(j)(1)(W)].....	33
S. Alternative Operating Scenario Records [RCSA §22a-174-33(o)(3)].....	33
T. Operational Flexibility and Off-Permit Changes [RCSA §22a-174-33(r)(2)] .....	33
U. Information for Notification [RCSA §22a-174-33(r)(2)(A)].....	33
V. Transfers [RCSA §22a-174-2a(g)] .....	34
W. Revocation [RCSA §22a-174-2a(h)] .....	34
X. Reopening for Cause [RCSA §22a-174-33(s)] .....	34
Y. Credible Evidence.....	34

## **Title V Operating Permit**

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

## LIST OF ABBREVIATIONS/ACRONYMS

<i>Abbreviation/Acronym</i>	<i>Description</i>
°C	Degree Celsius
°F	Degree Fahrenheit
Btu	British Thermal Units
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CO	Carbon Monoxide
CP/OP	Construction Permit/Operating Permit
EU	Emissions Unit
EPA	Environmental Protection Agency
gal	Gallons
GEU	Grouped Emissions Units
HAP	Hazardous Air Pollutant
hr	Hour
lb	Pound
MMBtu	Million British Thermal Units
mmHg	Millimeter of Mercury
MW	Megawatt
NO <sub>x</sub>	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
O <sub>2</sub>	Oxygen
PM <sub>10</sub>	Particulate Matter less than 10 microns
PM <sub>2.5</sub>	Particulate Matter less than 2.5 microns
ppm	Part Per Million
ppmvd	Parts Per Million, volumetric basis dry
ppmvw	Parts Per Million, volumetric basis wet
RCSA	Regulations of Connecticut State Agencies
RICE	Reciprocating Internal Combustion Engine
scf	Standard Cubic Feet
SCR	Selective Catalytic Reduction
SIC	Standard Industrial Classification Code
SO <sub>2</sub>	Sulfur Dioxide
SO <sub>x</sub>	Sulfur Oxides
TPY	Tons per year
VOC	Volatile Organic Compound

## Section I: Premises Information/Description

### A. PREMISES INFORMATION

Nature of Business: Electric Power Generation

Primary SIC: 4911

Facility Mailing Address: Bridgeport Energy, LLC  
10 Atlantic Street  
Bridgeport, CT 06604

Telephone Number: (203) 332-8682

### B. PREMISES DESCRIPTION

Bridgeport Energy, LLC (Bridgeport Energy) is a combined cycle electric generating plant providing power to Connecticut and New England. The total rated capacity of the facility is 560 MW. The facility commenced combined cycle commercial operation in June 1999. Bridgeport Energy is a major source for CO and NOx emissions located in a severe ozone non-attainment area as defined in RCSA §22a-174-1.

Bridgeport Energy is subject to the requirements of 40 CFR §68.10 because it processes more than 20,000 pounds of ammonia. As such, a Risk Management Plan was submitted to EPA on August 27, 1999 in compliance with the General Requirements of 40 CFR §68.12. The Permittee shall certify compliance with the requirements of 40 CFR Part 68 as part of the annual compliance certification as required by 40 CFR §70.6(c)(5).

The following emissions units are located at the premises:

**Turbines:** two Siemens V84.3A combustion (EU-1 and EU-2) turbines with unfired Vogt-NEM heat recovery steam generators, two combustion turbine generators, and a steam turbine generator with a combined nominal rated capacity of 560 MW. The turbines are equipped with inlet fogging and wet compression to increase power output during high ambient temperature days. The turbines only burn natural gas. Each turbine has a maximum firing rate of 2.100 million cubic feet per hour of natural gas (2,100 MMBtu/hr). NOx emissions are controlled by a low NOx burner and a Selective Catalytic Reduction (SCR) unit. CO emissions are controlled by an oxidation catalyst. The turbines are also equipped with continuous emission monitors (CEM) for NOx, CO and O<sub>2</sub>. The turbines operate under Permit Nos. 015-0190 and 015-0191. The turbines are subject to the New Source Performance Standard (NSPS) of 40 CFR Part 60 Subpart KKKK - Standards for Stationary Gas Turbines, and RCSA §22a-174-22c (CAIR).

**Emergency Engine:** a 267 horsepower Caterpillar 3306B diesel engine (EU-3) powers an emergency fire pump. The maximum firing rate is 14 gal/hr of diesel fuel or 1.99 MMBtu/hr. The emergency fire pump operates under RCSA §22a-174-3b(e) and is subject to 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines.

**Cold Cleaning Unit:** as part of the maintenance operation, a small cold cleaner (EU-4) is used to remove oil and grease from small equipment parts. The unit is equipped with an idle mode cover to minimize VOC emissions. The cold cleaning unit does not trigger the applicability of RCSA §22a-174-3a because potential emissions of VOC are less than 15 TPY. The cold cleaning unit is subject to the requirements of RCSA §22a-174-20(l)(3).

**Kerosene Heaters:** five small kerosene heaters are used to thaw fuel lines during cold weather. The units range in size from 10,000 to 250,000 Btu/hr. The kerosene heaters do not trigger the applicability of RCSA §22a-174-3a because potential emissions for any air pollutant are less than 15 TPY. The kerosene heaters are only subject to premises-wide applicable requirements.

## Section II: Emissions Units Information

### A. EMISSIONS UNITS DESCRIPTION

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

<b>TABLE II.A: EMISSIONS UNITS DESCRIPTION</b>				
<b>Grouped Emissions Unit</b>	<b>Emissions Unit</b>	<b>Emissions Unit Description</b>	<b>Control Unit Description</b>	<b>Permit or Regulation Number</b>
<b>GEU-1</b>	EU-1	Combustion Turbine 1 Siemens V84.3A Construction Date: 1999  Maximum Heat Input: 2,100 MMBtu/hr	- Low-NOx Burner, Siemens - SCR, Siemens SINOX - Oxidation Catalyst, BASF Camet CO	CP/OP 015-0190  40 CFR Part 60 Subpart KKKK
	EU-2	Combustion Turbine 2 Siemens V84.3A Construction Date: 1999  Maximum Heat Input: 2,100 MMBtu/hr	- Low-NOx Burner, Siemens - SCR: Siemens SINOX - Oxidation Catalyst, BASF Camet CO	CP/OP 015-0191  40 CFR Part 60 Subpart KKKK
	EU-3	Diesel Emergency Engine, Caterpillar 3306B  Construction Date: 1999  Maximum Rated Capacity: 1.99 MMBtu/hr	None	RCSA §22a-174-3b(e)  40 CFR Part 63 Subpart ZZZZ
	EU-4	Cold Cleaning Unit	None	RCSA §22a-174-20(1)(3)

## Section II: Emissions Units Information

### B. OPERATING SCENARIO IDENTIFICATION

The Permittee shall be allowed to operate under the following Standard Operating Scenarios without notifying the commissioner, provided that such operations are explicitly provided for and described in Table II.B below.

<b>TABLE II.B: OPERATING SCENARIO IDENTIFICATION</b>	
<b>Emissions Unit</b>	<b>Description of Scenario</b>
GEU-1 (EU-1 and EU-2)	The standard operation of the two Siemens combustion turbines is the combustion of natural gas for the production of electricity for sale to the grid.
EU-3	The standard operation of the Caterpillar 3306B diesel engine is to power the emergency fire pump.
EU-4	The standard operation of the cold cleaning unit is to remove oil and grease from small equipment parts.

### Section III: Applicable Requirements and Compliance Demonstration

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

#### A. GROUPED EMISSIONS UNIT 1 (GEU-1): Two Siemens V84.3A combustion turbines operating under Permit Nos. 015-0190 and 015-0191

##### 1. Fuel Usage and natural gas sulfur content

###### a. Limitation or Restriction

- i. The maximum fuel consumption over any consecutive 12 month period for the two Siemens combustion turbines combined is 33,109,900,000 cubic feet of natural gas. [CP/OP 015-0190 and 0191]
- ii. The maximum sulfur content of the natural gas shall not exceed 0.5 grains/100 scf. [CP/OP 015-0190 and 0191]

###### b. Monitoring and Testing Requirements

The Permittee shall use a fuel metering device to continuously monitor fuel feed to each Siemens combustion turbine. [CP/OP 015-0190 and 0191]

###### c. Record Keeping Requirements

- i. The Permittee shall keep records of the monthly and consecutive 12 month natural gas usage for each Siemens combustion turbine and both Siemens combustion turbines (Permit Nos. 015-0190 and 015-0191) combined. The consecutive 12 month fuel usage shall be determined by adding the current month's fuel usage to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [CP/OP 015-0190 and 0191]
- 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 natural gas to show compliance with the limits in this Title V permit. [CP/OP 015-0190 and 0191]
- iii. The Permittee shall record all deviations of any emission limitation or operating parameter. Such record shall include: [CP/OP 015-0190 and 0191]
  - (A) The date and time of the deviation;
  - (B) A detailed description of the deviation; and
  - (C) The duration of the deviation.

*Note: Deviation is as defined in 40 CFR §71.6(a)(3)(iii)(C).*

###### 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, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, suspending or to determine compliance with this Title V permit. [RCSA §22a-174-33(j)(1)(X)]



## Section III: Applicable Requirements and Compliance Demonstration

### 2. PM<sub>10</sub>/ PM<sub>2.5</sub>

#### a. Limitation or Restriction

- i. The allowable PM<sub>10</sub>/PM<sub>2.5</sub> emissions limits for each Siemens combustion turbine are 17.5 lb/hr and 0.0090 lb/MMBtu at a turbine inlet temperature of 59 °F and above. [CP/OP 015-0190 and 0191]
- ii. The allowable PM<sub>10</sub>/PM<sub>2.5</sub> emissions limits for each Siemens combustion turbine are 17.5 lb/hr and 0.0083 lb/MMBtu at a turbine inlet temperature below 59 °F. [CP/OP 015-0190 and 0191]
- iii. The total allowable PM<sub>10</sub>/PM<sub>2.5</sub> emissions limit for both Siemens combustion turbines combined is 138 TPY. [CP/OP 015-0190 and 0191]

#### b. Monitoring and Testing Requirements

- i. The Permittee shall conduct recurrent stack testing for PM<sub>10</sub>/PM<sub>2.5</sub> within five years from the date of the previous stack test. [CP/OP 015-0190 and 0191]
- ii. The Permittee shall conduct a one-time stack test for PM<sub>10</sub>/PM<sub>2.5</sub> within 180 days of the completion of the inlet fogging and wet compression system (inlet conditioning project). [CP/OP 015-0190 and 0191]

#### c. Record Keeping Requirements

- i. The Permittee shall maintain records of the stack emission testing for PM<sub>10</sub>/PM<sub>2.5</sub>. [CP/OP 015-0190 and 0191]
- ii. The Permittee shall calculate and record, for each Siemens combustion turbine and both Siemens combustion turbines (Permit Nos. 015-0190 and 015-0191) combined, monthly and consecutive 12 month PM<sub>10</sub> and PM<sub>2.5</sub> 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. [CP/OP 015-0190 and 0191]

#### d. Reporting Requirements

The Permittee shall submit stack testing results within 60 days after completion of testing. [CP/OP 015-0190 and 0191]

### 3. Sulfur Oxides

#### a. Limitation or Restriction

- i. The allowable SO<sub>2</sub> emissions limits for each Siemens combustion turbine are 1.26 lb/hr and 0.0006 lb/MMBtu for all turbine inlet temperatures. [CP/OP 015-0190 and 0191]
- ii. The total allowable SO<sub>2</sub> emissions limit for both Siemens combustion turbines combined is 9.9 TPY. [CP/OP 015-0190 and 0191]

### **Section III: Applicable Requirements and Compliance Demonstration**

#### *b. Monitoring and Testing Requirements*

Record keeping specified in Section III.A.3.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)(1)(K)(ii)]

#### *c. Record Keeping Requirements*

The Permittee shall calculate and record, for each Siemens combustion turbine and both Siemens combustion turbines (Permit Nos. 015-0190 and 015-0191) combined, monthly and consecutive 12 month SO<sub>2</sub> 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.  
[CP/OP 015-0190 and 0191]

#### *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, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, suspending or to determine compliance with this Title V permit.  
[RCSA §22a-174-33(j)(1)(X)]

## **4. Nitrogen Oxides**

#### *a. Limitation or Restriction*

- i. The allowable NO<sub>x</sub> emissions limits for each Siemens combustion turbine are 6 ppmvd@15% O<sub>2</sub>, 41.3 lb/hr and 0.021 lb/MMBtu at a turbine inlet temperature of 59 °F and above.  
[CP/OP 015-0190 and 0191]
- ii. The allowable NO<sub>x</sub> emissions limits for each Siemens combustion turbine are 6 ppmvd@15% O<sub>2</sub>, 41.3 lb/hr and 0.020 lb/MMBtu at a turbine inlet temperature below 59 °F.  
[CP/OP 015-0190 and 0191]
- iii. The total allowable NO<sub>x</sub> emissions limit for both Siemens combustion turbines combined is 362.9 TPY. [CP/OP 015-0190 and 0191]
- iv. The NO<sub>x</sub> startup, shutdown and equipment tuning limit is 500 lb/event.  
[CP/OP 015-0190 and 0191]

#### *b. Monitoring and Testing Requirements*

- i. The Permittee shall operate a continuous emissions monitor for NO<sub>x</sub>. [CP/OP 015-0190 and 0191]
- ii. The Permittee shall continuously monitor the SCR aqueous ammonia injection rate (gal/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this TV permit. [CP/OP 015-0190 and 0191]

### Section III: Applicable Requirements and Compliance Demonstration

- iii. The Permittee shall notify the commissioner in writing at least 30 days prior to conducting any performance or quality assurance testing of any CEM for NO<sub>x</sub>. Any such testing shall be conducted in accordance with a testing protocol approved by the commissioner. Any CEM for NO<sub>x</sub> shall be installed, calibrated and operated in accordance with the performance and quality assurance specifications contained in RCSA §22a-174-4 and 40 CFR Part 60 Subpart A, Appendix B and Appendix F or for affected units, 40 CFR Part 75. [RCSA §22a-174-22e(m)(4)]
- iv. The averaging times for the NO<sub>x</sub> emission limitation with the use of the continuous emissions monitor shall be a 24-hour rolling average. [CP/OP 015-0190 and 0191]

#### c. Record Keeping Requirements

- i. 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 units are located, unless the commissioner approves in writing the use of another location in Connecticut. [RCSA §22a-174-22e(j)(1); CP/OP 015-0190 and 0191]
- ii. The Permittee shall make and keep the following records: [RCSA §22a-174-22e(j)(2)(B) thru (G)]
  - (A) The date and work performed for repairs, replacement of parts and other maintenance.
  - (B) Records of the dates and times of all emission testing required by RCSA §22a-174-22e, the person performing the measurements, the testing methods used, the operating conditions at the time of the testing, and the results of such testing.
  - (C) For an emission unit that has a CEM for NO<sub>x</sub>:
    - (1) Records of all performance evaluation, 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 system as needed to demonstrate compliance with the requirements of RCSA §22a-174-22e.
  - (D) The Permittee shall make and keep the following records for each tune up performed:
    - (1) 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 work performed, and
    - (2) The procedures used to inspect and performed adjustments.
  - (E) Copies of all documents submitted to the commissioner pursuant to RCSA §22a-174-22e.
  - (F) Any other records or reports required by an order or permit issued by the commissioner pursuant to RCSA §22a-174-22e.
- iii. The Permittee shall calculate and record, for each Siemens combustion turbine and both Siemens combustion turbines (Permit Nos. 015-0190 and 015-0191) combined, monthly and consecutive 12 month NO<sub>x</sub> 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. [CP/OP 015-0190 and 0191]
- iv. The Permittee shall calculate each Siemens combustion turbine's non-ozone season emission rate as the sum of the NO<sub>x</sub> emissions during the period from October 1 through April 30, inclusive, divided by the sum of the Siemens combustion turbine's heat input during the period from October

### Section III: Applicable Requirements and Compliance Demonstration

1 through April 30, inclusive. [RCSA §22a-174-22e(d)(19)]

- v. The Permittee shall calculate each Siemens combustion turbine's ozone season emission rate as the sum of the NO<sub>x</sub> emissions while firing the applicable fuel during the period from May 1 through September 30, inclusive, divided by the sum of the Siemens combustion turbine's heat input while firing the applicable fuel during the period of May 1 through September 30, inclusive. [RCSA §22a-174-22e(d)(20)]
- vi. The Permittee shall record all deviations of any emission limitation or operating parameter. Such record shall include: [CP/OP 015-0190 and 0191]
  - (A) The date and time of the deviation;
  - (B) A detailed description of the deviation; and
  - (C) The duration of the deviation.

*Note: Deviation is as defined in 40 CFR §71.6(a)(3)(iii)(C).*

- vii. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the Siemens combustion turbines; 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: [CP/OP 015-0190 and 0191]
  - (A) Type of event (startup, shutdown, equipment tuning or malfunction);
  - (B) Equipment affected;
  - (C) Date of event;
  - (D) Duration of event (minutes); and
  - (E) Total NO<sub>x</sub> emissions emitted (lb) during the event.
- viii. The Permittee shall keep records of the inspection and maintenance of the SCR. The records shall include the name of the person, the date, the results or actions and the date the catalyst bed is replaced. [CP/OP 015-0190 and 0191]
- ix. The Permittee shall continuously record the SCR aqueous ammonia injection rate (gal/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed. [CP/OP 015-0190 and 0191]

#### *d. Reporting Requirements*

- i. 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) thru (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 emissions;
  - (E) The date and time when each malfunction of the CEM system commenced and ended; and

### Section III: Applicable Requirements and Compliance Demonstration

- (F) Actions taken to correct each malfunction; and If no excess emissions or CEM system malfunctions occur during a quarter, the Permittee shall indicate that no excess emissions or malfunctions occurred during the quarter.
- ii. Upon written notice, the commissioner may require the Permittee subject to RCSA §22a-174-22e to provide all hourly CEM data, in a format acceptable to the commissioner, for the three calendar month period identified in such a written notice. [RCSA §22a-174-22e(k)(4)]
- iii. The Permittee shall notify the commissioner, in writing, of any exceedance of an emissions limitation or operating parameters, 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 for NOx, no later than 10 days after such exceedance commenced. [CP/OP 015-0190 and 0191]
- iv. The Permittee shall notify the commissioner, in writing, of any malfunction of the equipment described in this Title V permit. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [CP/OP 015-0190 and 0191]
  - (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.

#### 5. Carbon Monoxide

##### *a. Limitation or Restriction*

- i. The allowable CO emissions limits for each Siemens combustion turbine are 10 ppmvd@15% O<sub>2</sub>, 42 lb/hr and 0.022 lb/MMBtu at a turbine inlet temperature of 59 °F and above. [CP/OP 015-0190 and 0191]
- ii. The allowable CO emissions limits for each Siemens combustion turbine are 10 ppmvd@15% O<sub>2</sub>, 42 lb/hr and 0.020 lb/MMBtu at a turbine inlet temperatures below 59 °F. [CP/OP 015-0190 and 0191]
- iii. The total allowable CO emissions limit for both Siemens combustion turbines combined is 339.4 TPY. [CP/OP 015-0190 and 0191]
- iv. The CO startup, shutdown and equipment tuning limit is 4,000 lb/event. [CP/OP 015-0190 and 0191]

##### *b. Monitoring and Testing Requirements*

- i. The Permittee shall operate two CO analyzers: a low range (0-20 ppm) and a high range (0-3500 ppm). [CP/OP 015-0190 and 0191]

Note: the CO dual-range analyzer is a single unit that is capable of reading both low range (0-20 ppm) and high range (0-3500 ppm) CO level.

- ii. The averaging time for the CO emission limitations with the use of the CEM shall be a 1 hour block average. [CP/OP 015-0190 and 0191]
- iii. The Permittee shall continuously monitor the oxidation catalyst inlet temperature (°F). The

### Section III: Applicable Requirements and Compliance Demonstration

Permittee shall maintain this parameters within the ranges recommended by the manufacturer to achieve compliance with the emission limits in this Title V permit. [CP/OP 015-0190 and 0191]

#### *c. Record Keeping Requirements*

- i. The Permittee shall keep all charts, electronically stored data, and printed records produced by the CEM equipment. [CP/OP 015-0190 and 0191]
- ii. The Permittee shall make and keep records of all performance evaluations, calibration checks and adjustments on such monitor and a record of maintenance procedures. [CP/OP 015-0190 and 0191]
- iii. The Permittee shall calculate and record, for each Siemens combustion turbine and both Siemens combustion turbines (Permit Nos. 015-0190 and 015-0191) combined, 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. [CP/OP 015-0190 and 0191]
- iv. The Permittee shall record all deviations of any emissions limitation or operating parameter. Such records shall include: [CP/OP 015-0190 and 0191]
  - (A) The date and time of the deviation;
  - (B) A detailed description of the deviation; and
  - (C) The duration of the deviation.
- v. The Permittee shall keep records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the Siemens combustion turbine; 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: [CP/OP 015-0190 and 0191]
  - (A) Type of event (startup, shutdown, equipment tuning or malfunction);
  - (B) Equipment affected;
  - (C) Date of event;
  - (D) Duration of event (minutes); and
  - (E) Total CO emissions emitted (lb) during the event.
- vi. The Permittee shall continuously record the oxidation catalyst inlet temperature (°F). [CP/OP 015-0190 and 0191]
- vii. The Permittee shall keep records of the inspection and maintenance of the oxidation catalyst. The records shall include the name of the person, the date, the results or actions and the date the catalyst was replaced. [CP/OP 015-0190 and 015-0191]

#### *d. Reporting Requirements*

- i. The Permittee shall notify the commissioner, in writing, of any exceedance of an emissions limitation or operating parameters, and shall identify the cause or likely cause of such exceedance,

### Section III: Applicable Requirements and Compliance Demonstration

all corrective actions and preventive measures taken with respect thereto, and the dates of such actions and measures for CO no later than ten days after such exceedance commenced. [CP/OP 015-0190 and 0191]

- ii. The Permittee shall notify the commissioner, in writing, of any malfunction of the equipment described in this Title V permit. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [CP/OP 015-0190 and 0191]
  - (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 notify the commissioner, in writing, of any exceedance of an emissions limitation or operating parameters, 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 for CO, no later than 10 days after such exceedance commenced. [CP/OP 015-0190 and 0191]

#### 6. VOC

##### *a. Limitation or Restriction*

- i. The allowable VOC emissions limits for each Siemens combustion turbine are 3 ppmvw@15% O<sub>2</sub>, 7.0 lb/hr and 0.0036 lb/MMBtu at a turbine inlet temperature of 59 °F and above. [CP/OP 015-0190 and 0191]
- ii. The allowable VOC emissions limits for each Siemens combustion turbine are 3 ppmvw@15% O<sub>2</sub>, 7.0 lb/hr and 0.0033 lb/MMBtu at a turbine inlet temperature below 59 °F. [CP/OP 015-0190 and 0191]
- iii. The total allowable VOC emission limit for both Siemens combustion turbines combined is 61.5 TPY. [CP/OP 015-0190 and 0191]

##### *b. Monitoring and Testing Requirements*

- i. The Permittee shall conduct recurrent stack testing for VOC within five years from the date of the previous stack test. [CP/OP 015-0190 and 0191]
- ii. The Permittee shall conduct a one-time stack test for VOC within 180 days of the completion of the inlet fogging and wet compression system (inlet conditioning project). [CP/OP 015-0190 and 0191]

##### *c. Record Keeping Requirements*

- i. The Permittee shall maintain records of the stack emission testing for VOC. [CP/OP 015-0090 and 0191]
- ii. The Permittee shall calculate and record, for each Siemens combustion turbine and both Siemens combustion turbines (Permit Nos. 015-0190 and 015-0191) combined, 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. [CP/OP 015-0190 and 0191]

### **Section III: Applicable Requirements and Compliance Demonstration**

- iii. The Permittee shall continuously record the oxidation catalyst inlet temperature (°F).  
[CP/OP 015-0190 and 0191]

#### *d. Reporting Requirements*

The Permittee shall submit stack testing results within 60 days after completion of testing.  
[CP/OP 015-0190 and 0191]

### **7. Ammonia**

#### *a. Limitation or Restriction*

The ammonia emissions limit for each Siemens combustion turbine is 6.3 ppmvw @ 15% O<sub>2</sub>.  
[CP/OP 015-0190 and 0191]

#### *b. Monitoring and Testing Requirements*

- i. The Permittee shall conduct recurrent stack testing for ammonia within five years from the date of the previous stack test. [CP/OP 015-0190 and 0191]
- ii. The Permittee shall continuously monitor and continuously record the SCR aqueous ammonia injection rate (gal/hr), operating temperature (°F) and pressure drop (inches of water) across the catalyst bed. The Permittee shall maintain these parameters within the ranges recommended by the manufacturer to achieve compliance with the emissions limits in Permit Nos. 015-0190 and 0191. [CP/OP 015-0190 and 0191]
- iii. The Permittee shall conduct stack testing for Ammonia within 180 days of the completion of the inlet fogging and wet compression system (inlet conditioning project). The next stack test, as required in Section III.A.7.b.i. of this Title V permit, shall be conducted within five years of this one-time test. [CP/OP 015-0190 and 0191]

#### *c. Record Keeping Requirements*

- i. The Permittee shall maintain records of the stack emission testing for ammonia.  
[CP/OP 015-0190 and 0191]
- ii. The Permittee shall keep records of each delivery of aqueous ammonia. The records shall include the date of delivery, the name of the supplier, the quantity of aqueous ammonia delivered, and the percentage of ammonia in solution, by weight. [CP/OP 015-0190 and 0191]

#### *d. Reporting Requirements*

The Permittee shall submit stack testing results within 60 days after completion of testing.  
[CP/OP 015-0190 and 0191]

### **8. Opacity**

#### *a. Limitation or Restriction*

This unit shall not exceed 10% opacity during any six minute block average as measured by 40 CFR Part



### Section III: Applicable Requirements and Compliance Demonstration

60 Appendix A, Reference Method 9. [CP/OP 015-0190 and 0191]

*b. Monitoring and Testing Requirements*

If required by the commissioner, the Permittee shall verify opacity using visible emissions testing as measured by 40 CFR Part 60, Appendix A, Reference Method 9 or other method approved by the Department. [RCSA §22a-174-33(j)(1)(K)(ii)]

*c. Record Keeping Requirements*

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 and shall submit such records to the commissioner upon request. [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, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, suspending or to determine compliance with this Title V permit. [RCSA §22a-174-33(j)(1)(X)]

#### 9. Baseline Annual Emissions Analysis

No later than July 31<sup>st</sup>, 2022 and continuing annually until five years from the date of completion of the work on both emission units, the Permittee shall submit a written report of the actual annual emissions of PM<sub>10</sub>/PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub>, VOC, CO and GHG from both emission units for the prior 12 months compared to the two year baseline *average* emissions, immediately preceding the work done on EU-1 and EU-2. [40 CFR 51.165(a)(1)(xii)(E), RCSA §22a-174-4].

The report shall be directed to:

Compliance Analysis & Coordination Unit  
Engineering & Enforcement Division  
Bureau of Air Management  
Department of Energy and Environmental Protection  
79 Elm Street, 5<sup>th</sup> Floor  
Hartford, CT 06106-5127

### Section III: Applicable Requirements and Compliance Demonstration

#### B. EMISSIONS UNIT 3 (EU-3): 1.99 MMBtu/hr Caterpillar 3306B diesel engine

##### Classification:

- **Emergency engine operating under RCSA §22a-174-3b(e)**
- **Not subject to RCSA §22a-174-22e pursuant to RCSA §22a-174-22e(b)(1)(E) (EU-3 has a maximum rated capacity less than 3 MMBtu/hr)**

#### 1. Operational Restrictions, Maximum Hours of Operation and Fuel Sulfur Content

##### a. Limitation or Restriction

- i. The Permittee shall operate each emergency engine in an emergency as defined in RCSA §22a-174-22e(a). [RCSA §§22a-174-22e and 22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall not allow the emergency engine to operate except during periods of testing and scheduled maintenance or during an emergency and unless the following conditions are met: [RCSA §22a-174-3b(e)(2)]
  - (A) The Permittee shall operate the emergency engine for a maximum of 300 hours during any 12 month rolling aggregate. [RCSA §22a-174-3b(e)(2)(C)]
  - (B) Any non-gaseous fuel consumed by each engine shall not exceed the sulfur content of motor vehicle diesel fuel where “motor vehicle diesel fuel” is defined in RCSA §22a-174-42. [RCSA §22a-174-3b(e)(2)(D)]

##### b. Monitoring and Testing Requirements

Record keeping specified in Section III.B.1.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)(1)(K)(ii)]

##### c. Record Keeping Requirements

The Permittee shall make and keep the following records:

- i. Hours of operation for each month and each 12 month rolling aggregate. [RCSA §22a-174-3b(e)(4)]
- ii. Any of the records listed below are sufficient to demonstrate the sulfur content of fuel used: [RCSA §22a-174-3b(h)(1) thru (3)]
  - (A) A fuel certification for a delivery of non-gaseous fuel from a bulk petroleum provider;
  - (B) A sales receipt for the sale of motor vehicle diesel fuel from a retail location; or
  - (C) A copy of a current contract with the fuel supplier supplying the fuel as a condition of each shipment.
- iii. All records above shall be maintained for a period of five years and made available to the commissioner to inspect and copy upon request. [RCSA §22a-174-3b(e)(3)]

### Section III: Applicable Requirements and Compliance Demonstration

#### 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. 40 CFR Part 63 Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

##### Classification:

- **Engine Category: Emergency**
- **At the time of this Title V renewal (Application No. 201607991), the emergency engine is an Existing Stationary Engine located at an Area Source of HAPs, constructed before June 12, 2006.**
- **The engine is not contractually obligated to be available for purposes of emergency demand response.**

*The Permittee should re-evaluate the requirements of 40 CFR Part 63 Subpart ZZZZ if any of the above conditions change.*

#### a. Limitation or Restriction

- i. The Permittee may operate the emergency stationary RICE for a maximum of 100 hours per calendar year 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 EPA Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of the emergency engine beyond 100 hours per calendar year. [40 CFR §63.6640(f)(2)]

##### Note:

- The Permittee must maintain compliance with these operating limitations in order to be considered an emergency engine and maintain exemption from other requirements of 40 CFR Part 63 Subpart ZZZZ.
  - The 100 hours and any additional approved time used for maintenance checks and readiness testing as described in Section III.B.2.a.i of this Title V permit shall count towards the hours of operation in Section III.B.1.a.ii.A of this Title V permit.
- ii. The Permittee shall change oil and filter every 500 hours of operation or annually, whichever comes first. [40 CFR Part 63 Subpart ZZZZ – Table 2d (Option 4)]
  - iii. The Permittee shall inspect air cleaner every 1,000 hours of operation or annually whichever comes first, and replace as necessary. [40 CFR Part 63 Subpart ZZZZ – Table 2d (Option 4)]
  - iv. The Permittee shall inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [40 CFR Part 63 Subpart ZZZZ – Table 2d (Option 4)]
  - v. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule requirements on the schedule required in 40 CFR Part 63 Subpart ZZZZ, Table 2d, or if performing the management

### Section III: Applicable Requirements and Compliance Demonstration

practice on the required schedule would otherwise pose an unacceptable risk under federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. [40 CFR Part 63 Subpart ZZZZ, Table 2d, Footnote 2]

- vi. At all times the Permittee shall operate and maintain any affected source in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if required levels have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but it is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR §63.6605(b)]
- vii. The Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR §63.6603(a), 40 CFR §63.6625(h), Table 2d, No. 4]
- viii. The Permittee shall operate and maintain the stationary RICE according to the manufacturer's emission related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR §63.6625(e), 40 CFR §63.6640(a), Table 6, No.9]

#### *b. Monitoring and Testing Requirements*

- i. The Permittee shall install a non-resettable hour meter if one is not already installed. [40 CFR §63.6625(f)]
- ii. The Permittee has the option of utilizing an oil analysis program in order to extend the specified oil change requirement in 40 CFR Part 63 Subpart ZZZZ, Table 2d. The oil analysis must be performed at the same frequency specified for changing the oil in 40 CFR Part 63 Subpart ZZZZ, Table 2d. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows:

Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within two days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within two days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[40 CFR §63.6625(i), 40 CFR Part 63 Subpart ZZZZ, Table 2d, Footnote No. 1]

### **Section III: Applicable Requirements and Compliance Demonstration**

#### *c. Record Keeping Requirements*

- i. The Permittee shall make and keep records of the parameters that are analyzed as part of the oil analysis program, the results of the analysis, and the oil changes for the engine. [40 CFR §63.6625(i)]
- ii. The Permittee shall make and keep the following records: [40 CFR §§63.6655(a)(1), (2) and (5)]
  - (A) A copy of each notification and report submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status submitted, according to the requirement in 40 CFR §63.10(b)(2)(xiv).
  - (B) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment).
  - (C) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- iii. The Permittee shall make and keep records to show continuous compliance with each applicable work or management practice required in 40 CFR §63.6655(d), Table 6 – Option 9. [40 CFR §63.6655(d)]
- iv. The Permittee shall make and keep records of the maintenance conducted on the stationary RICE in order to demonstrate that the Permittee operated and maintained the stationary RICE according to the Permittee’s own maintenance plan. [40 CFR §63.6655(e)]
- v. The Permittee shall make and keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee must document how many hours are spent for emergency operation, including what classified the operation as emergency. [40 CFR §63.6655(f)]

#### *d. Reporting Requirements*

- i. The Permittee shall report each instance in which they did not meet each applicable operating limitation in 40 CFR Part 63 Subpart ZZZZ, Table 2d. These instances are deviations from the operating limitations in 40 CFR Part 63 Subpart ZZZZ. These deviations must be reported according to the requirements in §63.6650. [40 CFR §63.6640(b)]
- ii. The Permittee shall report any failure to perform the engine’s management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR Part 63 Subpart ZZZZ, Table 2d, Footnote 2]

### **C. EMISSIONS UNIT 4 (EU-4): Cold cleaning unit subject to RCSA §22a-174-20(l)(3)**

#### **1. Vapor Pressure**

##### *a. Limitation or Restriction*

The Permittee shall use only solvent that has a vapor pressure less than or equal to 1.0 mmHg at 20 °C. [RCSA §22a-174-20(l)(3)(K)]

### Section III: Applicable Requirements and Compliance Demonstration

*b. Monitoring and Testing Requirements*

Record keeping specified in Section III.C.1.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)(1)(K)(ii)]

*c. Record Keeping Requirements*

The Permittee shall make and keep the following records for a minimum of five years; commencing on the date such records were created: [RCSA §§22a-174-20(1)(3)(J)(i thru iv)]

- i. Type of solvent used, including a description of the solvent and the solvent name;
- ii. The vapor pressure of the solvent in mmHg measured at 20 °C (68 °F); and
- iii. The percent VOC content by weight, and
- iv. The amount of solvent added to each unit on a monthly basis.

*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, including information to determine whether cause exists for modifying, revoking, reopening, reissuing, suspending or to determine compliance with this Title V permit. [RCSA §22a-174-33(j)(1)(X)]

#### D. FEDERAL ACID RAIN PERMIT REQUIREMENTS

##### Federal Acid Rain Permit Requirements

#### 1. SO<sub>2</sub> Allowance Allocations and NO<sub>x</sub> Requirements for Each Affected Unit

*a. Affected Unit 1 (Combustion Turbine 1 Siemens V84.3A)*

		2017	2018	2019	2020	2021
<b>EU-1 (BE1)</b>	<b>SO<sub>2</sub> Allowances under Tables 2, 3, or 4 of 40 CFR Part 73</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>NO<sub>x</sub> Limit</b>	Not an Affected Unit under 40 CFR Part 76				

### Section III: Applicable Requirements and Compliance Demonstration

b. *Affected Unit 2 (Combustion Turbine 2 Siemens V84.3A)*

		2017	2018	2019	2020	2021
<b>EU-2 (BE2)</b>	<b>SO<sub>2</sub> Allowances under Tables 2, 3, or 4 of 40 CFR Part 73</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
	<b>NO<sub>x</sub> Limit</b>	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.

#### E. 112(r) ACCIDENTAL RELEASE REQUIREMENTS

The Permittee is subject to the requirements of 40 CFR §68.10 because it processes more than 20,000 pounds of ammonia. In compliance with the General Requirements of 40 CFR §68.12, the Permittee submitted a Risk Management Plan to EPA on August 27, 1999. The Permittee shall certify compliance with the requirements of 40 CFR Part 68 as part of the annual compliance certification as required by 40 CFR §70.6(c)(5).

#### F. STRATOSPHERIC OZONE DEPLETING SUBSTANCES REQUIREMENTS

The Permittee shall comply with the standards for recycling and emissions reduction of products using ozone depleting substances pursuant to 40 CFR Part 82 Subpart F.

#### G. CAIR NO<sub>x</sub> OZONE SEASON TRADING

Emissions Units 1 and 2 (EU-1 and EU-2) are CAIR NO<sub>x</sub> Ozone season units and are therefore subject to RCSA §22a-174-22c. The units shall comply with applicable requirements stated in RCSA §22a-174-22c and the standard requirements of the CAIR permit application.

#### 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-174-4(d)(1).
- 2. Emergency Episode Procedures:** The Permittee shall comply with the procedures for emergency episodes as set forth in RCSA §22a-174-6.
- 3. 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.

### Section III: Applicable Requirements and Compliance Demonstration

4. **Prohibition of Air Pollution:** The Permittee shall comply with the requirement to prevent air pollution as set forth in RCSA §22a-174-9.
5. **Public Availability of Information:** The public availability of information shall apply, as set forth in RCSA §22a-174-10.
6. **Prohibition Against Concealment/Circumvention:** The Permittee shall comply with the prohibition against concealment or circumvention as set forth in RCSA §22a-174-11.
7. **Violations and Enforcement:** The Permittee shall not violate or cause the violation of any applicable regulation as set forth in RCSA §22a-174-12.
8. **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.
9. **No Defense to Nuisance Claim:** The Permittee shall comply with the regulations as set forth in RCSA §22a-174-14.
10. **Severability:** The Permittee shall comply with the severability requirements as set forth in RCSA §22a-174-15.
11. **Responsibility to Comply:** The Permittee shall be responsible to comply with the applicable regulations as set forth in RCSA §22a-174-16.
12. **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
13. **Fuel Sulfur Content:**
  - a. For the period beginning July 1, 2014 and ending June 30, 2018, the Permittee shall not use No. 2 heating oil that exceeds five hundred parts per million of sulfur by weight as set forth in CGS §16a-21a(a)(2)(A); and
  - b. On or after July 1, 2018, 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) .
14. **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.
15. **Organic Compound Emissions:** The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
16. **Nitrogen Oxide Emissions:** The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22e.
17. **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).
18. **Open Burning:** The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
19. **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



### **Section III: Applicable Requirements and Compliance Demonstration**

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.

- 20. Emission Fees:** The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

**Section IV: Compliance Schedule**

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

## Section V: State Enforceable Terms and Conditions

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

### 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 (HAP): The Permittee shall operate in compliance with the regulations for the control of HAP as set forth in RCSA §22a-174-29.

## **Section V: State Enforceable Terms and Conditions**

### **State Enforceable Terms and Conditions**

- G.** Open Burning: The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- H.** The Permittee shall comply with the requirements for Control of Carbon Dioxide Emissions as set forth in RCSA §22a-174-31.

## **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 these sections.

### **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 Clerck.

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

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

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

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

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

## **Section VI: Title V Requirements**

### **Title V Requirements**

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

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

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

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

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

A Permittee, required to perform monitoring pursuant 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 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 Subsection D of Section VII 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

## **Section VI: Title V Requirements**

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 22a-174-33(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 (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.



## Section VI: Title V Requirements

### **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.

## **Section VI: Title V Requirements**

### **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-6m.

### **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.