

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	189-0236-TV
Client/Sequence/Town/Premises Numbers	8224/3/189/114
Date Issued	May 6, 2015
Modification Issue Date	May 19, 2016
Expiration Date	May 6, 2020

Corporation:

Connecticut Municipal Electric Energy Cooperative (CMEEC)

Premises Location:

Alfred L. Pierce Generating Station, 195 East Street, Wallingford, CT 06492

Name of Responsible Official and Title:

Michael Rall, Director of Asset Management

All the following attached pages, 2 through 33, are hereby incorporated by reference into this Title V permit.

/s/Anne Gobin Robert J. Klee Commissioner <u>May 19, 2016</u> Date

CMEEC, Pierce Station

Permit No. 189-0236-TV

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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
AOS	Alternative Operating Scenario
AQI	Air Quality Index
CAIR	Clean Air Interstate Rule
CEMS	Continuous Emission Monitoring System
CFR	Code of Federal Regulations
CGS	Connecticut General Statutes
CMEEC	Connecticut Municipal Electric Energy Cooperative
CO_2	Carbon Dioxide
CO	Carbon Monoxide
EPA	Environmental Protection Agency
EU	Emissions Unit
HAP	Hazardous Air Pollutant
hr	Hour
lb	Pound
MMBtu	Million British Thermal Units
MMft ³	Million Cubic Feet
Mgal	Thousand Gallons
MW	Mega Watts
NO _x	Nitrogen Oxides
NSR	New Source Review
O_2	Oxygen
Pb	Lead
PM	Particulate Matter
PM_{10}	Particulate Matter less than 10 microns
ppm	Parts per million
ppmvd	Parts per million, volumetric basis dry
PS 2	Performance Specification 2 (40 CFR Part 60, Appendix B)
QA	Quality Assurance
QC	Quality Control
RATA	Relative Accuracy Test Audit
RCSA	Regulations of Connecticut State Agencies
scf	Standard Cubic Feet
SIC	Standard Industrial Classification Code
SOS	Standard Operating Scenario
SO_2	Sulfur Dioxide
SO _x	Sulfur Oxides
ULSD	Ultra-Low Sulfur Distillate Oil
VOC	Volatile Organic Compound

Section I: Premises Information/Description

A. PREMISES INFORMATION

Nature of Business:	Power Generation
Primary SIC:	4911
Facility Mailing Address:	Connecticut Municipal Electric Energy Cooperative
	30 Stott Avenue, Norwich, CT 06360-1526
Telephone Number:	860-383-4088

B. PREMISES DESCRIPTION

Connecticut Municipal Electric Energy Cooperative's (CMEEC) Alfred L. Pierce Generating Station (Pierce Station) provides quick-start peaking power for the local electrical grid. Electric power is provided through a combination of existing and new transmission systems. The General Electric 7EA combustion gas turbine generator set is a simple cycle turbine and has a nominal electrical output of 84 Megawatts (MW). The turbine operates with natural gas as its primary fuel and distillate oil as its secondary fuel. The facility has auxiliary systems consisting of turbine lubricating oil, water treatment, a continuous emission monitoring system (CEMS), electrical transformers, and distillate oil and natural gas distribution systems. Emissions exit a 125 foot painted steel exhaust stack adjacent to the turbine. The turbine is operating under a New Source Review (NSR) permit (Permit No. 189-0234).

Pierce Station is a Title V source pursuant to Section 22a-174-33(a)(10)(C) of the Regulations of Connecticut State Agencies (RCSA) because the turbine is subject to 40 CFR Parts 72-78 (Acid Rain Program) and it is a Title V source located in a serious ozone non-attainment area as defined in RCSA §22a-174-1(103).

The turbine is subject to 40 CFR Part 60 Subpart KKKK (Standards of Performance for Stationary Combustion Turbines) because it has a heat input at peak load greater than 10 MMBtu/hr. The turbine is also subject to the sulfur oxides (SO_x) and nitrogen oxides (NO_x) emission limitations in RCSA §§22a-174-19a, -22, and -22c (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 or 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-1	General Electric 7EACombustion Turbine Generator Set Installation Date: 6/1/07 Maximum Rated Capacity: 1153 MMBtu/hr on Natural Gas and 1215 MMBtu/hr on Distillate Oil	None	CEMS for NO _x , CO, O ₂	Permit No. 189-0234 RCSA §22a-174-22c (CAIR) 40 CFR Part 60 Subpart KKKK Title IV Acid Rain

B. OPERATING SCENARIO IDENTIFICATION

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

TABLE II.B: OPERATING SCENARIO IDENTIFICATION	
Emissions Units Associated with the Scenario	Description of Scenario
EU-1	The Permittee operates the turbine firing natural gas or ultra-low sulfur distillate oil (USLD).

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

A. EU-1 (General Electric 7EA Combustion Turbine Generator Set)

1. Maximum Fuel Consumption: Natural Gas and Distillate Oil

- a. Limitation or Restriction
 - i. Maximum Natural Gas Consumption over any Consecutive 12 Month Period: 525 MMft³ [Permit No. 189-0234]
 - ii. Maximum Distillate Oil Consumption over any Consecutive 12 Month Period: 1340 Mgal [Permit No. 189-0234]
 - iii. Maximum Natural Gas Sulfur Content (grains/100 scf): 20 [40 CFR §60.4365(a)]
 - iv. Maximum Distillate Fuel Oil Sulfur Content (% by weight, dry basis): 0.0015 [Permit No. 189-0234]
 - v. The turbine may only be fueled by ultra-low sulfur distillate diesel fuel oil when: [Permit No. 189-0234]
 - (A) The interruptible natural gas supply to the premises is curtailed;
 - (B) There is an unscheduled failure of the equipment required to allow the premises to utilize natural gas;
 - (C) The premises is commissioning or testing the oil firing capability of the turbine;
 - (D) There is routine maintenance of any equipment required to allow the premises to utilize natural gas or ULSD; or
 - (E) As required, periodically maintain an appropriate turnover of the on-site fuel oil inventory as recommended by the fuel storage manufacturer or as otherwise required by good utility practice.
 - vi. The Permittee shall make good faith efforts to restrict the operation of the turbine when utilizing ULSD for purposes listed in Section III.A.1.a.v.(C) through (E) of this Title V permit only on days when the United States Environmental Protection Agency Air Quality Index rating (AQI Rating) for Connecticut, as reported at <u>www.ct.gov/deep/aqi</u> is reported to be "Good". [Permit No. 189-0234]

b. Monitoring Requirements

The Permittee shall use individual non-resettable totalizing fuel metering devices or billing meters to continuously monitor fuel feed to the turbine. Alternatively, fuel flowmeters that meet the installation, certification, and quality assurance requirements of 40 CFR Part 75, Appendix D of this chapter are acceptable for use. [Permit No. 189-0234 and 40 CFR §60.4345(c)]

- c. Record Keeping Requirements
 - The Permittee shall make and keep records of monthly and consecutive 12 month fuel consumption (for each fuel). The consecutive 12 month fuel consumption shall be determined by adding (for each fuel) the current month's fuel consumption to that of the previous 11 months. The Permittee shall make these calculations within 30 days of the end of the previous month. [Permit No. 189-0234]
 - ii. 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. 189-0234]
 - iii. The Permittee shall maintain for each fuel, a certification from the fuel supplier specifying the maximum total sulfur content of the fuel. [40 CFR §60.4365(a)]
 - iv. The Permittee shall immediately switch to one of the other oil sampling options (i.e., daily sampling, flow proportional sampling, or sampling from the unit's storage tank) if the sulfur content of a delivery exceeds 0.05 weight percent. The Permittee shall continue to use one of the other sampling options until all of the oil from the delivery has been combusted, and the Permittee shall evaluate excess emissions according to 40 CFR §60.4385(a). When all of the fuel from the delivery has been burned, the Permittee may resume using the as-delivered sampling option. [40 CFR §60.4385(b)]
 - v. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.
 - vi. The Permittee shall make and keep a log and record the following information: [Permit No. 189-0234]
 - (A) Date and hours of operation using distillate fuel oil;
 - (B) Reason for operating on distillate fuel as listed in Section III.A.1.a.v of this Title V permit; and
 - (C) Good faith efforts taken when using distillate fuel oil as described in Section III.A.1.a.vi of this Title V permit.
- 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. 189-0234]

(A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

2. PM/PM₁₀ (Filterable plus condensable)

a. Limitation or Restriction

i. The Permittee shall not exceed the following emission limit when firing natural gas at steady state operation (50-100% Load): [Permit No. 189-0234]

Pollutant	<u>lb/hr</u>
PM/PM_{10}	10.20

ii. The Permittee shall not exceed the following emission limit when firing distillate oil at steady state operation (50-100% Load): [Permit No. 189-0234]

Pollutant	<u>lb/hr</u>
PM/PM_{10}	20.73

iii. The Permittee shall not exceed the following emission limit when firing either natural gas or distillate oil: [Permit No. 189-0234]

<u>Pollutant</u>	tons per 12 consecutive months
PM/PM_{10}	2.70

b. Monitoring Requirements

Demonstration of compliance with the emission limits shall be met by calculating the emission rate using emission factors from manufacturer's data. [Permit No. 189-0234]

c. Record Keeping Requirements

- i. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month PM/PM₁₀ 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. Emissions during startup, shutdown, maintenance and fuel switching shall be counted towards the annual emission limitation. [Permit No. 189-0234]
- iii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.

- 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. 189-0234]
 - (A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

3. SO₂

- a. Limitation or Restriction
 - i. The Permittee shall not exceed the following emission limit when firing natural gas at steady state operation (50-100% Load): [Permit No. 189-0234 and 40 CFR §60.4365]

<u>Pollutant</u>	<u>lb/hr</u>
SO_2	1.98

ii. The Permittee shall not exceed the following emission limit when firing distillate oil at steady state operation (50-100% Load): [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/hr</u>
SO_2	1.91

iii. The Permittee shall not exceed the following emission limit when firing either natural gas or distillate oil: [Permit No. 189-0234]

<u>Pollutant</u>	tons per 12 consecutive months
SO_2	0.45

b. Monitoring Requirements

Demonstration of compliance with the emission limits shall be met by calculating the emission rate using material balance. [Permit No. 189-0234]

c. Record Keeping Requirements

- i. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
- ii. The Permittee shall calculate and record the monthly and consecutive 12 month SO₂ 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, shutdown, maintenance and fuel switching shall be counted towards the annual emission limitation. [Permit No. 189-0234]

- iii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.
- d. Reporting Requirements
 - i. The Permittee shall certify in writing to the commissioner that the turbine is in compliance with the applicable provisions of RCSA §22a-174-19a. Such certification shall include actual quarterly SO₂ 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) and Permit No.189-0234]
 - ii. 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. 189-0234]
 - (A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

$4. NO_x$

- a. Limitation or Restriction
 - i. The Permittee shall not exceed the following emission limit when firing natural gas at steady state operation (50-100% Load): [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/hr</u>	ppmvd@15% O ₂ (4 hour rolling average)
NO _x	38.75	9

ii. The Permittee shall not exceed the following emission limit when firing distillate oil at steady state operation (50-100% Load): [Permit No. 189-0234]

Pollutant	<u>lb/hr</u>	<u>ppmvd@15% O₂ (4 hour rolling average)</u>
NO _x	206.30	42

iii. The Permittee shall not exceed the following emission limit when firing either natural gas or distillate oil: [Permit No. 189-0234]

Pollutanttons per 12 consecutive monthsNOx14.90

iv. The Permittee shall not emit greater than 0.15 pounds of NO_x per MMBtu average during the period from October 1 to April 30, inclusive. [RCSA §22a-174-22(e)(3)]

- b. Monitoring Requirements
 - The Permittee shall install, certify, maintain and operate a CEMS consisting of a NO_x monitor and a diluent gas (oxygen (O₂) or carbon dioxide (CO₂)) 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) and Permit No. 189-0234]
 - Each NO_x diluent CEMS must be installed and certified according to Performance Specification 2 (PS 2) in 40 CFR Part 60, Appendix B except the 7-day calibration drift is based on unit operating days, not calendar days. Procedure 1 in 40 CFR Part 60, Appendix F is not required. Alternatively, a NO_x diluent CEMS that is installed and certified according to 40 CFR Part 75, Appendix A is acceptable for use. The relative accuracy test audit (RATA) of the CEMS shall be performed on a lb/MMBtu basis. [40 CFR §60.4345(a)]
 - iii. The NO_x diluent CEMS shall meet all the applicable requirements of RCSA §§22a-174-4 and 22, 40 CFR Part 60 Subpart KKKK and 40 CFR Parts 72-78. [RCSA §22a-174-33(j)(1)(K)(ii)]
 - iv. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using CEMS data. [Permit No. 189-0234]
 - v. The diluent gas monitor is considered to be meeting the ongoing quality assurance/quality control (QA/QC) requirements if it is managed in accordance with 40 CFR Part 75, Appendix B (ex. linearity). [RCSA §22a-174-33(j)(1)(K)(ii)]
 - vi. The Permittee shall check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. [40 CFR §60.13(d)(1)]
- c. Record Keeping Requirements
 - i. The Permittee shall develop and keep on-site a quality assurance (QA) plan for all CEMS. For the CEMS and fuel flow meters, the Permittee shall implement the QA program and plan described in 40 CFR Part 75, Appendix B, Section 1. [RCSA §22a-174-4(c)(4)(A) and 40 CFR §60.4345(e)]
 - ii. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
 - iii. 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, shutdown, maintenance and fuel switching shall be counted towards the annual emission limitation. [Permit No. 189-0234]
 - iv. The Permittee shall make and keep records sufficient to demonstrate compliance with all applicable requirements of RCSA §22a-174-22c and the standard requirements of the CAIR permit application. [RCSA §22a-174-33(j)(1)(K(ii)]
 - v. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]

- (A) the date and time of the exceedance;
- (B) a detailed description of the exceedance; and
- (C) the duration of the exceedance.
- vi. The Permittee shall make and keep copies of all documents submitted to the Commissioner. [RCSA §§22a-174-4(d)(1), -22(l)(1)(E) and Permit No. 189-0234]
- vii. The Permittee shall make and keep all charts, electronically stored data and printed records produced by the CEMS. [RCSA §§22a-174-4(d)(1), -22(l)(1)(F) and Permit No. 189-0234]
- viii. The Permittee shall make and keep records of procedures for calculating NO_x emission rates. [RCSA 22a-174-22(l)(1)(G) and Permit No. 189-0234]
- ix. The Permittee shall make and keep CEMS records of all performance evaluations, calibration checks and adjustments on such monitor, maintenance procedures and all data necessary to complete the quarterly reports as required under RCSA §22a-174-22(l)(4). [RCSA §§22a-174-4(d)(1), -22(l)(1)(I) and Permit No. 189-0234]
- x. The Permittee shall make and keep records sufficient to demonstrate compliance with all applicable requirements of RCSA §22a-174-22c and the standard requirements of the CAIR permit application. [RCSA §22a-174-33(j)(1)(K)(ii)]
- d. Reporting Requirements
 - i. The Permittee shall notify the commissioner in writing of any malfunction of the CEMS. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [RCSA §22a-174-7(d) and Permit No. 189-0234]
 - (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.
 - The Permittee shall submit a written report of the results of the CEMS certification tests to the commissioner within 60 days of the completion of the tests. [RCSA §22a-174-22(1)(3) and Permit No. 189-0234]
 - iii. The Permittee shall submit to the commissioner written quarterly reports of excess emissions and CEMS malfunctions in accordance with RCSA §22a-174-22(1)(4). [RCSA §22a-174-22(1)(4) and Permit No. 189-0234]
 - iv. The Permittee shall submit reports of excess emissions and monitor downtime for the NO_x CEMS in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. [40 CFR §60.4375(a)]
 - v. Any 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). [40 CFR §60.4350(d)]

- vi. 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. 189-0234]
 - (A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

5. VOC

- a. Limitation or Restriction
 - i. The Permittee shall not exceed the following emission limit when firing natural gas at steady state operation (50-100% Load): [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/hr</u>
VOC	2.24

ii. The Permittee shall not exceed the following emission limit when firing distillate oil at steady state operation (50-100% Load): [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/hr</u>
VOC	2.28

iii. The Permittee shall not exceed the following emission limit when firing either natural gas or distillate oil: [Permit No. 189-0234]

<u>Pollutant</u>	tons per 12 consecutive months
VOC	0.49

b. Monitoring Requirements

Demonstration of compliance with the emission limits shall be met by calculating the emission rate using emission factors from manufacturer's data. [Permit No. 189-0234]

- c. Record Keeping Requirements
 - i. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
 - ii. 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, shutdown, maintenance and fuel switching shall be counted towards the annual emission limitation. [Permit No. 189-0234]
 - iii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]

- (A) the date and time of the exceedance;
- (B) a detailed description of the exceedance; and
- (C) the duration of the exceedance.

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. 189-0234]
 - (A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

6. CO

- a. Limitation or Restriction
 - i. The Permittee shall not exceed the following emission limit when firing natural gas at steady state operation (50-100% Load): [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/hr (1 hour block)</u>
СО	64.24

ii The Permittee shall not exceed the following emission limit when firing distillate oil at steady state operation (50-100% Load): [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/hr (1 hour block)</u>
СО	52.87

iii. The Permittee shall not exceed the following emission limit when firing either natural gas or distillate oil: [Permit No. 189-0234]

<u>Pollutant</u>	tons per 12 consecutive months
CO	14.90

- b. Monitoring Requirements
 - i. The Permittee shall install, certify, maintain and operate a CEMS for carbon monoxide (CO) in accordance with RCSA §22a-174-4. The CO analyzer shall be operational during all periods of operation including startup, shutdown and malfunction. [Permit No. 189-0234]
 - ii. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using CEMS data. [Permit No. 189-0234]
 - iii. The diluent gas monitor is considered to be meeting the ongoing QA/QC requirements if it is managed in accordance with 40 CFR Part 75, Appendix B (ex. linearity). [RCSA §22a-174-33(j)(1)(K)(ii)]

- iv. The Permittee shall check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. [40 CFR §60.13(d)(1)]
- c. Record Keeping Requirements
 - i. The Permittee shall make and keep records sufficient to demonstrate compliance with the lb/hr emission limits for each fuel. [RCSA 22a-174-33(j)(1)(K)(ii)]
 - ii. 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, shutdown, maintenance and fuel switching shall be counted towards the annual emission limitation. [Permit No. 189-0234]
 - iii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.
- d. Reporting Requirements
 - i. The Permittee shall notify the commissioner in writing of any malfunction of the CEMS. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [RCSA §22a-174-7(d) and Permit No. 189-0234]
 - (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.
 - ii. The Permittee shall submit a written report of the results of the CEMS certification tests to the commissioner within 60 days of the completion of the tests. [RCSA §22a-174-4(d)(1)]
 - iii. The Permittee shall submit reports of excess emissions and monitor downtime for the CO CEMS in accordance with 40 CFR §60.7(c). Excess emissions shall be reported for all periods of unit operation, including startup, shutdown and malfunction. [40 CFR §60.4375(a)]
 - iv. 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. 189-0234]

(A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

7. Startup and Shutdown Events

a. Limitation or Restriction

i. The Permittee shall not exceed the following startup and shutdown emission limits while firing natural gas: [Permit No. 189-0234]

<u>Pollutant</u>	lb/event
NO _x	150
CO	300

ii. The Permittee shall not exceed the following startup and shutdown emission limits while firing distillate oil: [Permit No. 189-0234]

<u>Pollutant</u>	<u>lb/event</u>
NO _x	650
CO	300

- iii. Maximum Duration of a Startup or Shutdown Event while firing natural gas or distillate oil (min/event): 180 [Permit No. 189-0234]
- iv. The Permittee shall operate and maintain this equipment, 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 and shutdown. [Permit No. 189-0234]

b. Monitoring Requirements

- i. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using CEMS data. [Permit No. 189-0234]
- ii. The NO_x and CO CEMS shall be operational during all periods of operation including startup and shutdown. [RCSA 22a-174-33(j)(1)(K)(ii)]
- iii. The diluent gas monitor is considered to be meeting the ongoing QA/QC requirements if it is managed in accordance with 40 CFR Part 75, Appendix B (ex. linearity). [RCSA §22a-174-33(j)(1)(K)(ii)]
- iv. The Permittee shall check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. [40 CFR §60.13(d)(1)]

c. Record Keeping Requirements

i. The Permittee shall make and keep records of the occurrence and duration of any startup or shutdown in the operation of the stationary gas turbine; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following information: [40 CFR §60.7(b) and Permit No. 189-0234]

- (A) type of event (startup or shutdown);
- (B) date of event;
- (C) duration of event (hours);
- (D) fuel being used during event; and
- (E) total NO_x and CO emissions emitted (lb) during the event.
- ii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.
- 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. 189-0234]
 - (A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

8. Maintenance and Fuel Switching Events

- a. Limitation or Restriction
 - i. The Permittee shall not exceed the following maintenance and fuel switching emission limits while firing natural gas: [Permit No. 189-0234]

<u>Pollutant</u>	lb/event
NO _x	400
CO	800

ii. The Permittee shall not exceed the following maintenance and fuel switching emission limits while firing distillate oil: [Permit No. 189-0234]

Pollutant	<u>lb/event</u>
NO _x	1730
CO	800

iii. Maximum Duration of a Maintenance or Fuel Switching Event while firing natural gas or distillate oil which exceed the steady state operation limits, combined (hours/calendar year): 30
 [Permit No. 189-0234]

- iv. The Permittee shall operate and maintain this equipment in accordance with the manufacturer's specifications and written recommendations. [Permit No. 189-0234]
- v. The Permittee shall operate and maintain this equipment, 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 malfunction. [Permit No. 189-0234]
- vi. The Permittee shall properly operate the control equipment at all times that this equipment is in operation and emitting air pollutants. [Permit No. 189-0234]
- vii. The Permittee shall immediately institute shutdown of the turbine in the event of a malfunction that results in an exceedance of any permit condition and cannot be corrected within three hours. [Permit No. 189-0234]
- b. Monitoring Requirements
 - i. Demonstration of compliance with the emission limits shall be met by calculating the emission rate using CEMS data. [Permit No. 189-0234]
 - ii. The NO_x and CO CEMS shall be operational during all periods of operation including maintenance, fuel switching and malfunction events. [RCSA 22a-174-33(j)(1)(K)(ii)]
 - iii. The diluent gas monitor is considered to be meeting the ongoing QA/QC requirements if it is managed in accordance with 40 CFR Part 75, Appendix B (ex. linearity).
 [RCSA §22a-174-33(j)(1)(K)(ii)]
 - iv. The Permittee shall check the zero (or low level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once each operating day in accordance with a written procedure. [40 CFR §60.13(d)(1)]
- c. Record Keeping Requirements
 - i. The Permittee shall make and keep records of the manufacturer's specifications and written recommendations and implementation procedures. [RCSA §22a-174-33(j)(1)(K)(ii)]
 - ii. The Permittee shall make and keep records of all tune-ups, repairs, replacement of parts and other maintenance. [RCSA §22a-174-22(l)(1)(D) and Permit No. 189-0234]
 - iii. The Permittee shall notify the commissioner in writing of any malfunction of the stationary gas turbine. The Permittee shall submit such notification within ten days of the malfunction. The notification shall include the following: [RCSA §22a-174-7(d) and Permit No. 189-0234]
 - (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.
 - iv. The Permittee shall make and keep records of the occurrence and duration of any maintenance or malfunction in the operation of the stationary gas turbine; or any periods during which a continuous monitoring system or monitoring device is inoperative. Such records shall contain the following

information: [40 CFR §60.7(b) and Permit No. 189-0234]

- (A) type of event (maintenance or malfunction)
- (B) date of event;
- (C) duration of event (hours);
- (D) fuel being used during event; and
- (E) total NO_x and CO emissions emitted (lb) during the event.
- v. The Permittee shall make and keep records of the number of hours in which a maintenance or fuel switching event exceeds the emissions limit in Section III.A.8.a.iii of this Title V permit. The total number of hours per calendar year shall be calculated within 30 days of the end of each month. [Permit No. 189-0234]
- vi. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.

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. 189-0234]
 - (A) For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

9. Pb

a. Limitation or Restriction

The Permittee shall not exceed the following emission limit when firing either natural gas or distillate oil: [Permit No. 189-0234]

<u>Pollutant</u>	tons per 12 consecutive months
Pb	0.003

b. Monitoring Requirements

Demonstration of compliance with the emission limit shall be met by calculating the emission rate using emission factors from AP-42, fifth edition, Section 3.1, April 2000. [RCSA §22a-174-33(j)(1)(K)(ii)]

- c. Record Keeping Requirements
 - i. The Permittee shall make and keep records sufficient to demonstrate compliance with the tons per 12 consecutive months emission limit for each fuel. [RCSA §22a-174-33(j)(1)(K)(ii)]
 - ii. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.
- 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. 189-0234]
 - (A) For any hazardous air pollutant, no later than 24 hours after such exceedance commenced

10. Opacity

a. Limitation or Restriction

Opacity shall not exceed 20% during any six minute block average as measured by 40 CFR Part 60, Appendix A Reference Method 9. [RCSA §22a-174-18(b)(1)(A) and Permit No. 189-0234]

b. Monitoring Requirements

The Permittee shall make and keep records of the dates, times, and places of visible emissions observations, persons performing the observations, test methods used, the operating conditions at the time of observation, and the results of such observation. [RCSA 22a-174-33(j)(1)(K)(i)]

- c. Recordkeeping Requirements
 - i. The Permittee shall make and keep records of all exceedances of any emissions limitation or operating parameter. Such records shall include: [Permit No. 189-0234]
 - (A) the date and time of the exceedance;
 - (B) a detailed description of the exceedance; and
 - (C) the duration of the exceedance.
- 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. 189-0234]

1. For any non-HAP regulated air pollutant or operating parameter, no later than ten days after such exceedance commenced.

B. FEDERAL ACID RAIN PERMIT REQUIREMENTS

1. SO₂ Allowance Allocations and NO_x Requirements for Each Affected Unit

a. AP-1 (General Electric 7EA Combustion Turbine Generator Set)

		2015	2016	2017	2018	2019
EU-1 40 CFR Par	SO ₂ Allowances under Table 2, 3, or 4 of 40 CFR Part 73	0	0	0	0	0
(Unit AP-1) 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.

C. 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.
- **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. (Section 18 approved by EPA on 9-23-1982, current Regulation submitted to EPA on 12-1-2004.)
- **13.** Sulfur Compound Emissions: The Permittee shall comply with the requirements for control of sulfur compound emissions as set forth in RCSA §22a-174-19.
- 14. Organic Compound Emissions: The Permittee shall comply with the requirements for control of organic compound emissions as set forth in RCSA §22a-174-20.
- **15.** Nitrogen Oxide Emissions: The Permittee shall comply with the requirements for control of nitrogen oxide emissions as set forth in RCSA §22a-174-22.
- **16. 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).
- 17. Emission Fees: The Permittee shall pay an emission fee as set forth in RCSA §22a-174-26(d).

THERE IS NO COMPLIANCE SCHEDULE

TABLE IV: COMPLIANCE SCHEDULE				
Emissions Unit	Applicable Regulations	Steps Required for Achieving Compliance (Milestones)	Date by which Each Step is to be Completed	Dates for Monitoring, Record Keeping, and Reporting

Section V: State Enforceable Terms and Conditions

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

SECTION V: STATE ENFORCEABLE TERMS AND CONDITIONS

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

Section V: State Enforceable Terms and Conditions

- **F.** Hazardous Air Pollutants (HAPs): The Permittee shall operate in compliance with the regulations for the control of HAPs as set forth in RCSA §22a-174-29.
- **G.** Open Burning: The Permittee is prohibited from conducting open burning, except as may be allowed by CGS §22a-174(f).
- **H.** Fuel Sulfur Content: The Permittee shall not use No. 2 heating oil that exceeds three-tenths of one percent sulfur by weight as set forth in CGS §16a-21a.
- **I.** 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.
- **J.** The Permittee shall comply with the requirements for Control of Carbon Dioxide Emissions as set forth in RCSA §22a-174-31.

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

SECTION VI: TITLE V REQUIREMENTS

A. SUBMITTALS TO THE COMMISSIONER & ADMINISTRATOR

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

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

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

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

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

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

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

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

- 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 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.

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.D 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(0)(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-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.



United States Environmental Protection Agency Acid Rain Program

Alfred L. Pierce Generating Station Facility (Source) Name OMB No. 2060-0258 Approval expires 11/30/2012

6635

Plant Code

Connecticut

State

Acid Rain Permit Application

For more information, see instructions and 40 CFR 72.30 and 72.31.

This submission is: new revised X for Acid Rain permit renewal

STEP 1

Identify the facility name, State, and plant (ORIS) code.

STEP 2

Enter the unit ID# for every affected unit at the affected source in column "a."

Unit ID#	Unit Will Hold Allowances in Accordance with 40 CFR 72.9(c)(1) Yes Yes
AP-1	
	, res
	Yes
· · · · · · · · · · · · · · · · · · ·	Yes
	Yes
·	Yes
	Yes
	Yes

EPA Form 7610-16 (Revised 12-2009)

Permit Requirements

STEP 3

Read the standard requirements.

(1) The designated representative of each affected source and each affected unit at the source shall:

(i) Submit a complete Acid Rain permit application (including a compliance plan) under 40 CFR part 72 in accordance with the deadlines specified in 40 CFR 72.30; and

(ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain permit application and issue or deny an Acid Rain permit;

(2) The owners and operators of each affected source and each affected unit at the source shall:

(i) Operate the unit in compliance with a complete Acid Rain permit application or a superseding Acid Rain permit issued by the permitting authority; and

(ii) Have an Acid Rain Permit.

Monitoring Requirements

(1) The owners and operators and, to the extent applicable, designated representative of each affected source and each affected unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75. (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the source or unit, as appropriate, with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.

(3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

(1) The owners and operators of each source and each affected unit at the source shall:

(i) Hold allowances, as of the allowance transfer deadline, in the source's compliance account (after deductions under 40 CFR 73.34(c)), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the affected units at the source; and

(ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.

(2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
(3) An affected unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:

(i) Starting January 1, 2000, an affected unit under 40 CFR 72.6(a)(2); or (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an affected unit under 40 CFR 72.6(a)(3).

Sulfur Dioxide Requirements, Cont'd.

STEP 3, Cont'd.

(4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.

(5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.

(6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.

(7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements

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

Excess Emissions Requirements

(1) The designated representative of an affected source that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.

(2) The owners and operators of an affected source that has excess emissions in any calendar year shall:

(i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and

(ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

(1) Unless otherwise provided, the owners and operators of the source and each affected unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:

(i) The certificate of representation for the designated representative for the source and each affected unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with 40 CFR 72.24; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;

Recordkeeping and Reporting Requirements, Cont'd.

STEP 3, Cont'd.

(ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply.

(iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

(iv) Copies of all documents used to complete an Acid Rain permit application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
(2) The designated representative of an affected source and each affected unit at the source shall submit the reports and compliance certifications

required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

<u>Liability</u>

(1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.

(2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.

(3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
(4) Each affected source and each affected unit shall meet the requirements of the Acid Rain Program.

(5) Any provision of the Acid Rain Program that applies to an affected source (including a provision applicable to the designated representative of an affected source) shall also apply to the owners and operators of such source and of the affected units at the source.

(6) Any provision of the Acid Rain Program that applies to an affected unit (including a provision applicable to the designated representative of an affected unit) shall also apply to the owners and operators of such unit.

(7) Each violation of a provision of 40 CFR parts 72, 73, 74, 75, 76, 77, and 78 by an affected source or affected unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain permit application, an Acid Rain permit, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

(1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an affected source or affected unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating

Effect on Other Authorities, Cont'd.

to applicable National Ambient Air Quality Standards or State Implementation Plans;

(2) Limiting the number of allowances a source can hold; *provided*, that the number of allowances held by the source shall not affect the source's obligation to comply with any other provisions of the Act;

(3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;

(4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,

(5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

<u>Certification</u>

STEP 4 Read the certification statement, sign, and date.

STEP 3, Cont'd.

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

Thomas Solinsky Name	· · · · · · · · · · · · · · · · · · ·
Signature the how what	April 21, 2014 Date
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