

US EPA ARCHIVE DOCUMENT



Prevention of Significant Deterioration Permit  
for  
Pioneer Valley Energy Center  
Ampad Road  
Westfield, MA

431 MW Combustion Turbine  
Combined Cycle Generating Unit

EPA Final PSD Permit Number  
052-042-MA15

Pursuant to the provisions of the Clean Air Act, Subchapter I, Part C (42 U.S.C. Section 7470, *et. seq*) and the regulations found at the Code of Federal Regulations Title 40, Section 52.21, the United States Environmental Protection Agency New England (EPA) is issuing a Prevention of Significant Deterioration (PSD) air quality permit to Pioneer Valley Energy Center, Ampad Road, Westfield, MA (PVEC) to install and operate a new 431 megawatt (MW) combined cycle generating facility at this location.

The design, construction and operation of the Facility shall be subject to the attached permit conditions and permit limitations. This Permit is valid only for the equipment described herein and as submitted to EPA in the November 8, 2008 application for a New Source Review (NSR)/Prevention of Significant Deterioration (PSD) permit under 40 CFR 52.21 and subsequent application submittals. This permit shall become effective 33 days after the date of signature unless review is requested on the permit under 40 C.F.R. § 124.19, in which case the permit shall be effective when provided by 40 C.F.R. § 124.19(f). The permit shall remain in effect until it is surrendered to EPA. This permit becomes invalid if PVEC does not commence construction within 18 months after the date of signature. EPA may extend the 18-month period upon a satisfactory showing that an extension is justified.

This permit does not relieve PVEC from the obligation to comply with applicable state and federal air pollution control rules and regulations.

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Stephen S. Perkins, Director

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Date of Issuance

Office of Ecosystem Protection

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## Definitions

1. ASTM: This reference means a monitoring device that meets American Society for Testing and Materials (ASTM) standards for the specific measuring activity.
2. Carbon dioxide equivalent (CO<sub>2</sub>e): This represents an amount of GHGs emitted, and shall be computed as follows:
  - a. Multiply the mass amount of emissions (tpy) for each of the six greenhouse gases in the pollutant GHGs by the gas's associated global warming potential published at Table A-1 to subpart A of 40 C.F.R. part 98.
  - b. Sum the resultant value from the above paragraph for each gas to compute a tpy CO<sub>2</sub>e.
3. Combined cycle turbine (CCT): This term includes the combustion turbine and heat recovery steam generator.
4. GHGs: The aggregate group of six greenhouse gases: carbon dioxide, nitrous oxide, methane, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.
5. MWh<sub>grid</sub>: Amount of electricity delivered to the grid in one hour.
6. Startup: Unit startup commences when fuel is first ignited. Cold startups are defined as occurring after a period of greater than 24 hours of turbine shutdown, and warm startups are defined as occurring 24 hours or less since turbine shutdown. The time period for a warm startup is limited to 2.0 hours. The time period for a cold startup is limited to 5.0 hours.
7. Shutdown: Shutdown is defined as the time when the turbine operation is between minimum sustained operating load and flame-out in the turbine combustor occurs. The time period for a shutdown is limited to 1.0 hour.
8. ULSD: Transportation diesel or biodiesel (containing no more than 20 % non fossil fuel) with a sulfur content of 15 ppm by weight or less.

## Project Description (For Informational Purposes)

Pioneer Valley Energy Center (PVEC) is proposing to construct and operate a 431 MW electrical generating facility (the Facility) at a site on Ampad Road in Westfield, Massachusetts. The major system components will consist of a combined cycle turbine, an auxiliary boiler, an emergency diesel engine/generator, a diesel engine/fire pump, and a mechanical draft wet cooling tower.

On April 11, 2011, EPA and the Massachusetts Department of Environmental Protection (MassDEP) entered into an “Agreement for Delegation of the Federal Prevention of Significant Deterioration (PSD) Program by the United States Environmental Protection Agency, Region 1 to the Massachusetts Department of Environmental Protection” (Delegation Agreement). Pursuant to the Delegation Agreement and to 40 CFR 52.21(u), EPA delegated to MassDEP full responsibility for implementing and enforcing the federal PSD regulations for sources located in the Commonwealth of Massachusetts. Under Section IV.K of that Delegation Agreement, however, EPA retained responsibility for issuance and, if necessary, defense on appeal of the PSD permit for PVEC. After this permit has taken final effect, MassDEP may implement the PSD program with respect to this permit and this facility to the same extent as any other facility in Massachusetts, and where this permit refers to communications to or approval by EPA, MassDEP may act on EPA’s behalf.

## Permit Terms and Conditions

### I. Emission Limits

1. The owner/operator shall not discharge or cause to discharge into the atmosphere emissions from the combined cycle turbine (CCT) in excess of any of the emission limits in Tables I-IV. The emission limits contained in Tables I and II shall apply at all times, except that for CO and NO<sub>x</sub> only, the alternate emission limits contained in Tables III and Table IV shall apply during startup and shutdown, after which the limits in Tables I and II shall apply. The emission limits for ULSD shall apply when transitioning between natural gas and ULSD.

**Table I**  
**Emission Limits – Natural Gas**

Pollutant	Concentration Limit	Mass Limit
Nitrogen Oxides (averaged over 1 hr)	2.0 ppmvd @ 15%O <sub>2</sub>	20.2 lb/hr
Sulfuric Acid Mist	0.0019 lb/MMBtu	4.9 lb/hr
PM <sub>10</sub>	0.0040 lb/MMBtu filterable + condensables	9.8 lb/hr filterable + condensables
PM <sub>2.5</sub>	0.0040 lb/MMBtu filterable + condensables	9.8 lb/hr filterable + condensables
Carbon Monoxide (averaged over 1 hr)	2.0 ppmvd @ 15%O <sub>2</sub>	12.3 lb/hr

**Table II**  
**Emission Limits – ULSD**

Pollutant	Concentration Limit	Mass Limit
<b>Nitrogen Oxides (averaged over 1 hr)</b>	5.0 ppmvd @ 15%O <sub>2</sub>	43.0 lb/hr
<b>Sulfuric Acid Mist</b>	0.0018 lb/MMBtu	3.6 lb/hr
<b>PM<sub>10</sub></b>	0.014 lb/MMBtu filterable + condensables	26.8 lb/hr filterable + condensables
<b>PM<sub>2.5</sub></b>	0.014 lb/MMBtu filterable + condensables	26.8 lb/hr filterable + condensables
<b>Carbon Monoxide (averaged over 1 hr)</b>	6.0 ppmvd @ 15%O <sub>2</sub>	31.5 lb/hr

**Table III**  
**Startup and Shutdown Emission Limits – Natural Gas**  
(Averaging time is 1 hour)

Pollutant	Concentration Limit	Mass Limit
<b>Nitrogen Oxides</b>	40 ppmvd @ 15%O <sub>2</sub>	62.0 lb/hr
<b>Carbon Monoxide</b>	1,100 ppmvd @ 15%O <sub>2</sub> for first 60 minutes of startup and for shutdowns	2000 lb/hr
<b>Carbon Monoxide</b>	100 ppmvd @ 15%O <sub>2</sub> after first 60 minutes of startup	400 lb/hr

**Table IV**  
**Startup and Shutdown Emission Limits – ULSD**  
(Averaging time is 1 hour)

Pollutant	Concentration Limit	Mass Limit
<b>Nitrogen Oxides</b>	60 ppmvd @ 15%O <sub>2</sub>	99 lb/hr
<b>Carbon Monoxide</b>	4,000 ppmvd @ 15%O <sub>2</sub> for first 60 minutes of startup and for shutdowns	6000 lb/hr
<b>Carbon Monoxide</b>	250 ppmvd @ 15%O <sub>2</sub> after first 60 minutes of startup	800 lb/hr

- To ensure the owner/operator has designed and installed an energy efficient CCT, the owner/operator shall conduct an initial emission test for CO<sub>2</sub> and use emission factors from 40 CFR part 98 for all other components of greenhouse gases, within 180 days from initial startup. The owner/operator shall ensure that GHG emissions from the CCT do not exceed 825 lbs of CO<sub>2</sub>e MWh<sub>grid</sub> (the “design emissions limit”) during the test. The test shall be conducted when the CCT is operating above 90 % of its design capacity on natural gas and the results shall be corrected to ISO conditions (59 °F, 14.7 psia, and 60% humidity). If the CCT does not meet the design emissions limit, then the owner/operator shall remedy the CCT’s failure to meet the design emissions limit, and shall not combust any fuel in the CCT

until the owner/operator has shown compliance with that limit during a subsequent emission test.

3. Starting 365 calendar days after initial startup, the owner/operator shall not discharge or cause to discharge into the atmosphere GHG emissions from the combined cycle turbine (CCT) in excess of 895 lbs of CO<sub>2</sub>e/MWh<sub>grid</sub> on a 365-day rolling average. A new 365-day rolling average emission rate is calculated each day by calculating the arithmetic average of all hourly emission rates (sum of measured lbs CO<sub>2</sub>/MWh<sub>grid</sub> with the emission factors from 40 CFR part 98 for all other all components of greenhouse gases and excluding hours in which the CCT was not operating) for the 365 preceding days.
4. The owner/operator shall not discharge or cause to discharge into the atmosphere emissions from the 270 hp fire pump in excess of any of the following emission limits:
  - a. 4.0 g/KW-hour of nitrogen oxides and non-methane hydrocarbon combined
  - b. 0.20 g/KW-hour of PM<sub>10</sub>
  - c. 0.20 g/KW-hour of PM<sub>2.5</sub>
5. The owner/operator shall not discharge or cause to discharge into the atmosphere emissions from the 1500 KW emergency generator in excess of any of the following emission limits:
  - a. 6.4 g/KW-hour of nitrogen oxides and non-methane hydrocarbon combined
  - b. 3.5 g/KW-hour of carbon monoxide
  - c. 0.20 g/KW-hour of PM<sub>10</sub>
  - d. 0.20 g/KW-hour of PM<sub>2.5</sub>
6. The owner/operator shall not discharge or cause to discharge into the atmosphere emissions from the auxiliary boiler in excess of any of the following emission limits:

**Table V**  
**Emission Limits – Natural Gas**

Pollutant	Concentration Limit	Mass Limit
<b>Nitrogen Oxides</b>	0.029 lbs/MMBtu	0.58 lb/hr
<b>Sulfuric Acid Mist</b>	0.0005 lb/MMBtu	n/a
<b>PM<sub>10</sub></b>	0.0048 lb/MMBtu filterable + condensables	0.1 lb/hr filterable + condensables
<b>PM<sub>2.5</sub></b>	0.0048 lb/MMBtu filterable + condensables	0.1 lb/hr filterable + condensables
<b>Carbon Monoxide</b>	0.037 lbs/MMBtu	0.74 lb/hr

## **II. Operational Conditions**

### **A. Emergency Generator and Fire Pump**

1. The owner/operator shall only burn ULSD in the emergency generator and fire pump. The owner/operator shall limit the operating hours of each of these emission units to 300 hours in any 12 consecutive month period. The owner/operator shall only operate the emergency generator during power loss from the electrical grid or as needed for required monitoring, testing, or maintenance. The owner/operator shall not operate the emergency generator during combustion turbine startup or shutdown.
2. The owner/operator shall only conduct readiness testing on the emergency generator and fire pump between 12:00 pm and 3:00 pm.
3. The owner/operator shall not conduct readiness testing on the emergency generator and fire pump during days when the hourly ambient NO<sub>2</sub> level measured just before testing at the nearest ambient NO<sub>2</sub> air quality monitor in Hampden County operated by the MassDEP and available at <http://public.dep.state.ma.us/MassAir> (or its successor) is 54 ppb or higher. Notwithstanding the preceding, the owner/operator may conduct readiness testing if the scheduled testing has been delayed due to previous NO<sub>2</sub> measurements for five consecutive calendar days.
4. The owner/operator shall install, maintain, and operate the emergency generator and fire pump in accordance with the manufacturer's specification.

### **B. Combined Cycle Turbine**

1. The owner or operator shall only burn either natural gas or ULSD in the combined cycle turbine.
2. The owner/operator shall not burn ULSD in the combined cycle turbine for more than 1440 hours in any 12 consecutive month period. Note: Any fractional hour burning ULSD will be rounded up to 1 hour. For example, 1 hour and 20 minutes on ULSD will be considered 2 hours using ULSD.
3. In addition to the ULSD combustion limitations imposed by Condition II.B.2, the owner/operator shall only burn ULSD in the combined cycle turbine during hours when one or more of the conditions in subparagraphs (a)-(f) below is true.
  - a. The interruptible natural gas supply is curtailed at the Tennessee No. 6 gas terminal hub. A curtailment begins when the owner/operator receives a communication from the owner of the hub stating the natural gas supply will be curtailed, and ends when the owner/operator receives a communication from the owner of the hub stating that the



curtailment has ended.

- b. A blockage or breakage in the gas line delivery system limits or prohibits the use of natural gas.
  - c. The owner/operator is commissioning the combined cycle turbine and, pursuant to the turbine manufacturer's written instructions, the owner/operator is required by the manufacturer to fire ULSD during the commissioning process.
  - d. The firing of ULSD is required for emission testing purposes as specified in Section IV of this permit or as required by the Commonwealth of Massachusetts.
  - e. Routine maintenance of any equipment requires the owner/operator to fire ULSD.
  - f. In order to maintain an appropriate turnover of the on-site fuel oil inventory, the owner/operator can fire ULSD when the last delivery of the oil to the tank was more than six months ago.
4. In addition to the ULSD combustion limitations imposed by Condition II.B.3, the owner/operator may not burn ULSD under subparagraphs Condition II.B.3.d-f on any day when the Air Quality Index (AQI) for the area that includes Westfield, MA, as made available through the AIRNow web site at [http://airnow.gov/index.cfm?action=airnow.local\\_city&cityid=74](http://airnow.gov/index.cfm?action=airnow.local_city&cityid=74) (or its successor) is, or is forecasted to be, 101 or more (or, if the AQI is re-scaled, to an equivalent value indicating air quality Unhealthy for Sensitive Groups or worse). This provision does not apply to Conditions II.B.3.a-c.
  5. For purposes of Conditions II.B.3.a and V.2.o, the owner/operator may designate an alternate gas terminal hub in lieu of the Tennessee No. 6 hub. Such an alternate designation will become effective when EPA receives the owner/operator's written communication specifying the owner/operator's alternate hub designation and shall remain effective until replaced by another alternate hub designation.
  6. The owner/operator shall not discharge or cause to discharge into the atmosphere from the combined cycle turbine any gases, excluding water vapor, that exhibit greater than 10 percent opacity (6-minute average). This operational restriction shall apply at all times, except when firing ULSD during periods of startup or shutdown.

### **C. Auxiliary Boiler**

1. The owner/operator shall not operate the auxiliary boiler for more than 1100 hours in any 12 consecutive month period.
2. The owner/operator shall only burn natural gas in the auxiliary boiler.

3. The owner/operator shall tune-up the auxiliary boiler within 14 days after commencement of operations, and at least once every year thereafter, including the following:
  - a. Inspect the burner, and clean or replace any components of the burner as necessary.
  - b. Inspect the flame pattern, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications.
  - c. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.
  - d. Optimize total emissions of carbon monoxide, consistent with the manufacturer's specifications.
  - e. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made).

#### **D. Cooling Tower**

1. The owner/operator shall install high efficiency drift eliminators in accordance with manufacturer's specifications and limit the amount of escaped water droplets to 0.0005 % of the total recirculating water.

### **III. Monitoring Requirements**

1. The owner/operator shall install, operate, and maintain a continuous emission monitoring system (CEMS) to monitor carbon monoxide (CO), carbon dioxide (CO<sub>2</sub>), oxygen (O<sub>2</sub>), and nitrogen oxides (NO<sub>x</sub>) emissions, and a continuous opacity monitoring system (COMS) for the combined cycle turbine. The systems shall be operational prior to the initial stack testing required by Section IV.1 of this permit.
2. Except as specified in paragraphs a and b, the installation of the CO monitor shall meet the performance specifications of 40 CFR Part 60 Appendix B, Performance Specifications 4 and 4A. After installation, the owner/operator shall conduct quality assurance procedures in accordance with 40 CFR Part 60, Appendix F.
  - a. The CO monitoring system will have two ranges for measuring CO emissions:
    - i. 0-12 ppm for steady state operations
    - ii. 0-10,000 ppm for startup/shutdown operations
  - b. The relative accuracy of the CO monitoring system shall be:
    - i. For the 0-12 ppm range, the relative accuracy must be within +/-0.5 ppm.
    - ii. For the 0-10,000 ppm range, the relative accuracy must be within +/- 125 ppm.

3. Except as specified in paragraphs a and b, the installation of the NO<sub>x</sub> monitor shall meet the performance specifications of 40 CFR Part 75. After the installation the owner/operator shall conduct quality assurance procedures in accordance with 40 CFR Part 75.
  - a. The NO<sub>x</sub> monitoring system will have two ranges for measuring NO<sub>x</sub>:
    - i. 0-10 ppm for steady state operations
    - ii. 0-120 ppm for startup/shutdown operations
  - b. The relative accuracy of the NO<sub>x</sub> monitoring system shall be
    - i. For the 0-10 ppm range, the relative accuracy must be within +/-0.5 ppm.
    - ii. For the 0-120 ppm range, the relative accuracy must be within +/- 6 ppm.
4. The installation of the CO<sub>2</sub> and O<sub>2</sub> monitors shall meet the performance specifications of 40 CFR Part 60, Appendix B, Performance Specification No. 3.
5. The installation of the continuous opacity monitoring system shall meet the performance specifications of 40 CFR Part 60, Appendix B, Performance Specification No. 1.
6. The owner/operator shall install and operate a single, dedicated ASTM certified natural gas flow meter for the combined cycle turbine.
7. The owner/operator shall install and operate a single, dedicated ASTM certified ULSD flow meter for the combined cycle turbine.
8. The owner/operator shall calculate the heat input to the combined cycle turbine for each hour of operation by using the fuel flow meters and the corresponding fuel's heat content.
9. The owner/operator shall provide fuel supplier certifications for each fuel delivery that documents the sulfur content of the ULSD is 15 ppm sulfur by weight or less. Fuel supplier certification shall include the following information:
  - a. The name of the oil supplier;
  - b. The sulfur content of the oil;
  - c. The method used to determine the sulfur content of the oil;
  - d. The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil; specifically including whether the oil was sampled as delivered to PVEC, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility or another location;
  - e. If the oil was not sampled as delivered, a statement that the sampling was performed according to either the single tank composite sampling procedure or the all-levels sampling procedure in ASTM D4057-88, "Standard Practice for Manual Sampling of Petroleum and Petroleum Products" and that no additions have been made to the supplier's tank since sampling.

10. As an alternative to fuel supplier certification, the owner/operator may elect to take a manual sample after each addition of oil to the storage tank in accordance with the sampling procedure in ASTM D4057–88, “Standard Practice for Manual Sampling of Petroleum and Petroleum Products.”
11. The owner/operator shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time of the turbine, including periods of when the unit is in startup and shutdown operations.
12. For the emergency generator, the owner/operator shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time.
13. For the fire pump, the owner/operator shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time.
14. For the auxiliary boiler, the owner/operator shall install and maintain a non-resettable operating hour meter or the equivalent software to accurately indicate the elapsed operating time.

#### **IV. Testing Requirements**

The owner/operator shall:

1. Ensure that all emissions tests are completed within 180 days after initial “startup,” as that term is defined in 40 C.F.R. § 60.2, of the CCT.
2. Submit a proposed emission test protocol(s) (including testing for startup and shutdown emissions) for EPA review and approval at least 60 days prior to the date of actual testing. EPA may revise the proposed emission test protocol or request that the owner/operator revise and re-submit.
3. Submit the final emission test report(s) to the EPA within 60 days after the completion of each of the tests.
4. Ensure that all stacks are constructed so as to accommodate the emissions testing requirements as stipulated in 40 CFR Part 60, Appendix A.
5. Ensure that all emissions testing is conducted in accordance with the Environmental Protection Agency test requirements as specified in the 40 CFR Part 60, Appendix A, or by a methodology approved by the EPA.
6. Conduct volumetric flow rate and velocity testing in accordance with 40 CFR Part 60, Appendix A, Method 1 and 2 and either Method 2F (3 dimensional probe) or Method 2G (two dimensional probe).

7. Measure  $PM_{10}/PM_{2.5}$  emissions using 40 CFR 51, Appendix M, Test Method 201 or 201a, and Test Method 202, or another test method approved by EPA.
8. Conduct initial compliance emission tests at maximum load to determine compliance with the emission limits (lb/hr, lb/MMBtu, and ppmvd) established in Section I for the CCT for the following:
  - a. ULSD:  $NO_x$ , CO,  $PM_{10}/PM_{2.5}$ , Sulfuric Acid Mist
  - b. Natural Gas:  $NO_x$ , CO,  $PM_{10}/PM_{2.5}$ , Sulfuric Acid Mist, GHG
  - c. Conduct initial compliance tests for the duration of start-up and shut down periods for the CCT for  $NO_x$  and CO. Testing shall be done for both ULSD and natural gas.

## **V. Recordkeeping Requirements**

1. The owner/operator shall maintain records of emergency engine operation that show it operated according to the allowable operating conditions listed in Conditions II.A.1-4 of this permit.
2. The owner/operator shall maintain records of all information used to show compliance with the terms and conditions of this permit. The owner/operator shall maintain the records for five years in a location accessible to staff personnel from EPA and MassDEP. At a minimum, the records shall contain in either paper or electronic format, the following information:
  - a. Date and hours of operation of the combined cycle turbine.
  - b. Amount of electricity delivered to the grid for each operating hour.
  - c. Date and hours of operation of the emergency generator.
  - d. Date and hours of operation of the fire pump.
  - e. Date and hours of operation of the auxiliary boiler.
  - f. Date and time of start-up and shutdown of the combined cycle turbine.
  - g. Date, time and specifications of all maintenance performed on the combined cycle turbine and continuous monitoring devices and the type or a description of the maintenance performed and the date and time the work was completed.
  - h. Date, time and specifications of all maintenance performed on all pollution control equipment including dry low  $NO_x$  combustors, water injection, and selective catalyst reduction for controlling  $NO_x$  and the catalytic oxidation system for controlling CO.

- i. Date, time and specifications of all maintenance performed on the CEM system. In addition when calibrating any of the CEM monitoring devices, a record of the date, time and the name of contractor who performed the calibrations.
- j. Combustion equipment, emission control or monitoring device malfunctions, time and date of malfunction, description of event, time and date of corrective action taken and description of said action.
- k. On an hourly basis, the total fuel consumption of natural gas in cubic feet and total fuel consumption of ULSD in gallons for each permitted fuel burning piece of equipment.
- l. For each fuel fired in the combined cycle turbine, the method to determine the fuel's heat value and the actual value used to determine the heat input on an hourly basis.
- m. Hourly NO<sub>x</sub>, CO, and CO<sub>2</sub> emissions, on a ppm and lb/hr basis for the combined cycle turbine. Hourly lb/hr emissions for CO shall be calculated using method 19 in 40 CFR part 60, Appendix A and the ppm measurement. Hourly lb/hr emissions for NO<sub>x</sub> shall be calculated using 40 CFR part 75. Emission data for ppm shall include both the actual ppm reading and the ppm reading adjusted to 15% O<sub>2</sub>.
- n. To determine the mass amount of CO<sub>2</sub> emitted in one hour use the following equation:

$$E = K * \%CO_2 * F_{8710} * \left(\frac{GCV}{10^6}\right) * \dot{Q}$$

E = CO<sub>2</sub> in lb/hr

K = 1.14 x 10<sup>-3</sup> lb/scf/%CO<sub>2</sub>

%CO<sub>2</sub> is the average percent CO<sub>2</sub> in the gas stream for the hour, dry basis

F<sub>8710</sub> is the F-factor for natural gas, dscf/MMBtu

GCV is the gross calorific value, Btu/dscf

$\dot{Q}$  is the natural gas fuel flow rate, dscf/hr

- o. Communication from owner of the gas terminal Tennessee No. 6 to the owner/operator that demonstrates when natural gas to the owner/operator was curtailed and when each curtailment ended.
- p. Documentation when an equipment failure necessitates the owner/operator to switch to ULSD. This includes, but is not limited to, communication from the gas supplier that a disruption in the gas supply has occurred.
- q. Date(s) and operating hours when the commissioning of the combined cycle turbine required the owner/operator to fire ULSD.
- r. Date(s) and operating hours when ULSD was fired in the combined cycle turbine due to emission testing.



- s. Date(s), operating hours, and maintenance logs when routine maintenance of any equipment required the owner/operator to fire ULSD.
  - t. The date and amount in gallons when ULSD was delivered to the storage tank that is used for the combined cycle turbine. Sum the deliveries for each calendar month.
  - u. Date(s) and operating hours when ULSD was fired in the combined cycle turbine in accordance with permit Condition II.B.3. Sum the usage for each calendar month.
3. The owner/operator shall display copies of this permit in reasonably accessible locations as near to the subject equipment as is practical.
  4. The owner/operator shall establish a maintenance procedure for ensuring the integrity of the drift eliminators.
  5. The owner/operator shall keep a record of all hourly ambient NO<sub>2</sub> levels used by the owner/operator in determining readiness testing of the fire pump and/or emergency generator could proceed.

## **VI. Reporting Requirements**

1. The owner/operator shall notify EPA in writing within 30 days after construction has been “commenced” as that term is defined in 40 C.F.R. § 52.21(b)(9), and, if construction is discontinued, then within 30 days after construction has been discontinued and again within 30 days after construction has been re-commenced.
2. The owner/operator shall notify EPA in writing within 15 days after the actual date of initial “startup” as that term is defined in 40 C.F.R. § 60.2.
3. The owner/operator shall submit quarterly CEMS and COMS reports in writing to EPA and MassDEP. The reports will be submitted by January 30<sup>th</sup>, April 30<sup>th</sup>, July 30<sup>th</sup> and October 30<sup>th</sup> of each year and will contain at least the following information:
  - a. The reports from the facility CEMS and COMS shall identify any periods of excess emissions; and
  - b. For each period of excess emissions or excursions from allowable operating conditions, PVEC shall list the duration, cause, the response taken, and the amount of excess emissions. Periods of excess emissions shall include periods of start-up, shutdown, malfunction, emergency, equipment cleaning, and upsets or failures associated with the emission control system or CEMS and COMS.
4. Within 48 hours of receiving a shipment of ULSD with a sulfur content by weight in excess of 15 ppm, the owner/operator shall notify EPA and MassDEP in writing of such receipt, including the information in Condition III.9 above, and shall not combust that fuel.

5. After the occurrence of any violation of any emission limitation, the owner/operator must notify EPA New England, Office of Environmental Stewardship, attention Compliance and Enforcement Chief, by FAX at (617) 918-1810 within two business days, and subsequently in writing to the address listed in Section XII below within seven calendar days.
6. Compliance with Condition VI.5 or any other condition of this permit requiring the owner/operator to notify EPA of excess emissions or of any other violation of the permit shall not excuse or otherwise constitute a defense to any violation of the permit or of any applicable law or regulation.

## **VII. Right of Entry**

The owner/operator shall allow all authorized representatives of EPA, upon presentation of credentials, to enter upon or through the facility where records required under this permit are kept. The owner/operator shall allow such authorized representatives, at reasonable times:

1. To access and copy any records that must be kept under this permit
2. To inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
3. To monitor substances or parameters for purposes of assuring compliance with this permit.

## **VIII. Transfer of Ownership**

In the event of any changes in control or ownership of the PVEC facility, this permit shall be binding on all subsequent owners and operators. The owner/operator shall notify the succeeding owner and operator of the existence of this permit and its conditions before such change if possible, but in no case later than 14 days after such change. Notification shall be sent by letter with a copy forwarded within 5 days to EPA.

## **IX. Severability**

The provisions of this permit are severable, and if any provision of the permit is held invalid, the remainder of this permit will not be affected thereby.

## **X. Credible Evidence**

For the purpose of submitting compliance certifications or establishing whether or not the owner/operator has violated or is in violation of any provision of this permit, the methods used in this permit shall be used, as applicable. However, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether the owner/operator would have been in compliance with applicable requirements if the appropriate performance or compliance test procedures or methods had been performed.



## **XI. Other Applicable Regulations**

The owner/operator shall construct and operate all equipment regulated herein in compliance with all other applicable provisions of federal and state air regulations.

## **XII. Agency Address**

Subject to change, all correspondence required by this permit shall be forwarded to:

Air Compliance Clerk  
U.S. EPA New England  
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