

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR RESOURCES**

Operating Requirements and Conditions

PROVIDENCE VETERANS AFFAIRS MEDICAL CENTER

DRAFT Emissions Cap No. 113-2019
(Revised XX/19)

A. Emission Limitations

1. All distillate fuel oil burned in the boilers shall contain no more than 0.0015 percent sulfur by weight.
2. All diesel fuel oil burned in all emergency generators shall contain no more than 0.0015 percent sulfur by weight.

B. Operating Requirements

1. The combined quantity of distillate fuel oil and natural gas combusted at this facility, excluding the emergency generators, shall be limited to 2,838,900 gallons of distillate fuel oil equivalents or less for any consecutive 12-month period. For purposes of this limitation, each 200 cubic feet of natural gas combusted shall be considered equivalent to one gallon of distillate fuel oil.
2. Each emergency generator at the facility shall not operate more than 500 hours in any consecutive 12-month period.
3. The emergency generator at the facility shall be used only during emergencies or for maintenance or testing purposes. Emergency means an electric power outage due to a failure of the electrical grid, on-site disaster, local equipment failure, or public service emergencies such as flood, fire, or natural disaster.
4. The emergency generator at the facility shall not be operated in conjunction with any voluntary demand-reduction program or any other interruptible power supply arrangement with a utility, other market participant or system operator.

C. Monitoring Requirements

1. Each emergency generator at the facility shall be equipped with an elapsed time meter to indicate in cumulative hours the amount of time the engine has operated.

D. Fuel Oil Testing

1. Compliance with the diesel fuel sulfur limit shall be determined based on a certification from the fuel supplier. Fuel supplier certifications shall include the following information:
 - a. The name of the fuel supplier;
 - b. The sulfur content of the fuel from which the shipment came or the shipment itself;
 - c. The location of the fuel when the sample was drawn for analysis to determine the sulfur content of the fuel, specifically including whether the fuel was sampled as delivered to this facility or whether the sample was drawn from fuel in storage at the fuel supplier's facility or another location;
 - d. The method used to determine the sulfur content of the fuel.
2. As an alternative to fuel supplier certification, the owner/operator may elect to sample the fuel prior to combustion. Sampling and analysis shall be conducted for the fuel in the initial tank(s) of fuel to be fired in the engine and after each new shipment of fuel is received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted.

E. Recordkeeping and Reporting Requirements

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of the month, determine the fuel use for the entire facility, excluding the emergency generators, and the hours of operation for the emergency generators for the previous 12-months. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request. This provision shall become effective immediately upon issuance of the emissions cap.
2. The owner/operator shall notify the Office of Air Resources in writing within 30-days, whenever its fuel usage for all fuel burning equipment, excluding the emergency generators, for any 12-month period exceeds 2,838,900 gallons of distillate fuel oil equivalents.
3. The owner/operator shall notify the Office of Air Resources in writing within 30-days, whenever an emergency generator operates more than 500 hours in any 12-month period.
4. The owner/operator shall notify the Office of Air Resources in writing of any

planned physical or operational change to any equipment that would:

- a. Change the representation of the facility in the emissions cap application.
- b. Alter the applicability of any state or federal air pollution rules or regulations.
- c. Result in the violation of any terms or conditions of this permit.
- d. Qualify as a modification under 250-RICR-120-05-9.

Such notification shall include:

- Information describing the nature of the change.
- Information describing the effect of the change on the emission of any air contaminant.
- The scheduled completion date of the planned change.

Any such change shall be consistent with the appropriate regulation and have the prior approval of the Director.

5. The owner/operator shall maintain copies of all fuel supplier certifications or fuel oil analyses and these copies shall be made accessible for review by the Office of Air Resources or its authorized representative and USEPA.
6. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this emissions cap or any other applicable air pollution control rules and regulations.
7. All records required in this permit shall be maintained for a minimum of five years after the date of each record and shall be made available to representatives of the Office of Air Resources upon request.

F. Other Conditions

1. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all reasonable times for the purpose of inspecting any air pollution source, investigating any condition it believes may be causing air pollution or examining any records required to be maintained by the Office of Air Resources. The operating restrictions in Condition B.1 and B.2 were established to ensure that emissions from this facility do not exceed any of the applicability thresholds in “Control of Nitrogen Oxide Emissions” 250-RICR-120-05-27 and “Operating Permits” 250-RICR-120-05-29, The following emission factors were used to establish these operating restrictions:

a. Natural Gas Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission factor for nitrogen oxides discharged to the atmosphere from the boiler exhaust flue: 100 lbs per million cubic feet burned.

(2) Sulfur Dioxide

The emission factor for sulfur dioxide discharged to the atmosphere from the boiler exhaust flue: 0.6 lbs per million cubic feet burned.

b. Distillate Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission factor for nitrogen oxides discharged to the atmosphere from the boiler exhaust flue: 20 lbs per 1000 gallons burned.

(2) Sulfur Dioxide (SO₂)

The emission factor for sulfur dioxide discharged to the atmosphere from the boilers: 0.216 lbs per 1000 gallons burned.

c. Diesel Oil Firing

(1) Nitrogen Oxides (as nitrogen dioxide (NO₂))

(a) The emission factor for nitrogen oxides discharged to the atmosphere from the Caterpillar Model No. C-15 emergency generator (Approval No. GPEG-27): 156.3 lbs per 1000 gallons burned.

(b) The emission factor for nitrogen oxides discharged to the atmosphere from the Caterpillar Model No. C-9 emergency generator (Approval No. GPEG-28): 152.5 lbs per 1000 gallons burned.

(c) The emission factor for nitrogen oxides discharged to the atmosphere from each of the two Caterpillar Model No. C-18 emergency generators (Approval Nos. GPEG-81 and GPEG-82): 325.6 lbs per 1000 gallons burned.

- (d) The emission factor for nitrogen oxides discharged to the atmosphere from the Cummins Model No. 150 DSGAC emergency generator (Approval No. GPEG-153): 172.3 lbs per 1000 gallons burned.
- (e) The emission factor for nitrogen oxides discharged to the atmosphere from each of the two Caterpillar Model No. C-18 ATAAC emergency generators (Approval Nos. GPEG-170 and GPEG-171): 290.9 lbs per 1000 gallons burned.
- (f) The emission factor for nitrogen oxides discharged to the atmosphere from the Kohler Model No. 100REOZJF emergency generator (Approval No. GPEG-404): 129.5 lbs per 1000 gallons burned.
- (g) The emission factor for nitrogen oxides discharged to the atmosphere from the Cummins Model No. QSX15-G9 emergency generator (Approval No. 2091): 282.9 lbs per 1000 gallons burned.
- (h) The emission factor for nitrogen oxides discharged to the atmosphere from the Caterpillar Model No. C-15 emergency generator (Approval No. 2092): 278.4 lbs per 1000 gallons burned.

(2) Sulfur Dioxide (SO₂)

The emission factor for sulfur dioxide discharged to the atmosphere from emergency generators: 0.216 lbs per 1000 gallons burned.

2. The Office of Air Resources may reopen and revise this emission cap if it determines that:
- a. a material mistake was made in establishing the operating restrictions; or,
 - b. inaccurate emission factors were used in establishing the operating restrictions; or,
 - c. the emissions cap must be revised to ensure that emissions from this facility do not exceed any of the applicability thresholds in “Control of Nitrogen Oxide Emissions” 250-RICR-120-05-27, and “Operating Permits” 250-RICR-120-05-29.