

1 August 2013

Joseph DiPietro, Esq.
Senior Vice President and General Counsel
Kent Hospital
455 Toll Gate Road
Warwick, RI 02886

Dear Mr. DiPietro:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of fuel burning equipment at your facility located at 455 Toll Gate Road, Warwick, RI.

Enclosed is a minor source permit issued pursuant to our review of your applications (Approval Nos. 2224-2226).

Based on the representations made in your 21 December 2012 correspondence to Doug McVay of this office, the Office of Air Resources has preliminarily determined that all fuel burning equipment at your facility has the potential to emit approximately 47 tons per year of nitrogen oxides (NOx). Any source with the potential to emit greater than 50 tons per year of nitrogen oxides (NOx) is subject to the Operating Permit Program. Your facility is currently in the Operating Permit Program as a capped source, with allowable, actual emissions restricted to below the major source threshold. It is our intention to terminate your emissions cap since your potential to emit is less than the major source threshold for all pollutants. If you want to retain your emissions cap, please notify the Office of Air Resources, in writing, no later than 30 August 2013.

If there are any questions concerning this permit, please contact me at 222-2808, extension 7430 or email at darren.austin@dem.ri.gov.

Sincerely,

Darren J. Austin
Air Quality Specialist
Office of Air Resources

cc: City of Warwick Building Official
Scott Carter, Steam Plant Supervisor, Kent Hospital
Ronald E. Schroeder, PE, Quonset Environmental LLC

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

MINOR SOURCE PERMIT

KENT HOSPITAL

APPROVAL NO. 2224-2226

Pursuant to the provisions of Air Pollution Control Regulation No. 9, this minor source permit is issued to:

Kent Hospital

For the following:

Installation of 2 Cleaver Brooks 8.0 MMBtu/hr, 200 HP water-tube boilers, Model No. FLX200-800 (Approval Nos. 2224 and 2225) and one Cleaver Brooks 9.9 MMBtu/hr, 240 HP water-tube boiler Model No. FLX200-1000 (Approval No 2226). The boilers shall be fired with natural gas or No. 2 fuel oil containing 0.05 percent sulfur

Located at: *455 Tollgate Road, Warwick RI 02886*

This permit shall be effective from the date of its issuance and shall remain in effect until revoked by or surrendered to the Department. This permit does not relieve *Kent Hospital* from compliance with applicable state and federal air pollution control rules and regulations. The design, construction and operation of this equipment shall be subject to the attached permit conditions and emission limitations.

**Douglas McVay, Chief
Office of Air Resources**

Date of Issuance

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

Permit Conditions and Emission Limitations

KENT COUNTY HOSPITAL

Approval Nos. 2224-2226

- A. The following Emission Limitations are applicable to the two Cleaver Brooks FLX200-800 boilers;
1. Natural Gas Firing
 - a. Nitrogen oxides

The emission rate of nitrogen oxides discharged to the atmosphere from each boiler shall not exceed 0.035 lb per million BTU heat input or 0.282 lb/hr, whichever is more stringent.
 - b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from each boiler shall not exceed 0.036 lb per million BTU heat input or 0.292 lb/hr, whichever is more stringent.
 - c. Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from each boiler shall not exceed 0.004 lb per million BTU heat input or 0.032 lb/hr, whichever is more stringent.
 2. Fuel Oil Firing
 - a. Nitrogen Oxides

The emission rate of nitrogen oxides discharged to the atmosphere from each boiler shall not exceed 0.160 lb per million BTU heat input or 1.280 lb/hr, whichever is more stringent.
 - b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from each boiler shall not exceed 0.039 lb per million BTU heat input or 0.310 lb/hr, whichever is more stringent.

c. Sulfur Dioxide (SO₂)

- (1) All fuel burned in each boiler shall contain no more than 0.05 percent sulfur by weight.
- (2) The emission rate of sulfur dioxide discharged to the atmosphere from each boiler shall not exceed 0.414 lb/hr.

d. Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from each boiler shall not exceed 0.021 lb per million BTU heat input or 0.168 lb/hr, whichever is more stringent.

e. Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from each boiler shall not exceed 0.005 lb per million BTU heat input or 0.04 lb/hr, whichever is more stringent.

3. Visible emissions from the boilers stack shall not exceed 10% opacity (6-minute average).

B. The following Emission Limitations are applicable to the one Cleaver Brooks FLX200-1000 boiler;

1. Natural Gas Firing

a. Nitrogen oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the boiler shall not exceed 0.035 lb per million BTU heat input or 0.349 lb/hr, whichever is more stringent.

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the boiler shall not exceed 0.036 lb per million BTU heat input or 0.361 lb/hr, whichever is more stringent.

c. Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from the boiler shall not exceed 0.004 lb per million BTU heat input or 0.0396 lb/hr, whichever is more stringent.

2. Fuel Oil Firing

a. Nitrogen Oxides (as nitrogen dioxide (NO₂))

The emission rate of nitrogen oxides discharged to the atmosphere from the boiler shall not exceed 0.160 lb per million BTU heat input or 1.584 lb/hr, whichever is more stringent.

b. Carbon Monoxide (CO)

The emission rate of carbon monoxide discharged to the atmosphere from the boiler shall not exceed 0.039 lb per million BTU heat input or 0.384 lb/hr, whichever is more stringent.

c. Sulfur Dioxide (SO₂)

(1) All fuel burned in each boiler shall contain no more than 0.05 percent sulfur by weight.

(2) The emission rate of sulfur dioxide discharged to the atmosphere from the boiler shall not exceed 0.512 lb/hr.

d. Particulate Matter

The emission rate of particulate matter discharged to the atmosphere from the boiler shall not exceed 0.021 lb per million BTU heat input or 0.2079 lb/hr, whichever is more stringent.

e. Total Nonmethane Hydrocarbons (NMHC)

The emission rate of total nonmethane hydrocarbons discharged to the atmosphere from the boiler shall not exceed 0.005 lb per million BTU heat input or 0.050 lb/hr, whichever is more stringent.

C. Operating Requirements

1. The maximum firing rate of each Cleaver Brooks FLX200-800 boiler shall not exceed 8165 ft³/hr of natural gas or 57.1 gal/hr of No. 2 fuel oil.

2. The maximum firing rate of the Cleaver Brooks FLX200-1000 boiler shall not exceed 10,230 ft³/hr of natural gas or 71.0 gal/hr of No. 2 fuel oil.

D. Continuous Monitors

1. Continuous emission monitoring shall be installed, operated and maintained for opacity when the boilers are operating on fuel oil. The device shall be calibrated to sound an audio alarm at 10% opacity. The audio alarm must be located in an

area where it will be heard by the operator of or other person responsible for the boilers.

E. Fuel Oil Testing

1. Compliance with the fuel oil sulfur limits may 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 Kent Hospital or whether the sample was drawn from fuel storage at the fuel supplier's facility or another location; and
 - 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 each fuel burning device and after each new shipment of fuel received. Samples shall be collected from the fuel tank immediately after the fuel tank is filled and before any fuel is combusted.
3. Each fuel supplier certification or each fuel oil analysis must demonstrate that the oil contains 0.05 percent sulfur by weight or less.

F. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 15 days after the first of the month, determine the total quantity of No. 2 fuel oil and natural gas combusted in each boiler. The owner/operator shall keep records of this determination and provide such records to the Office of Air Resources upon request.
2. The owner/operator shall retain copies of all fuel supplier certifications or fuel oil analysis for each calendar quarter. These records shall be made accessible for review by the Office of Air Resources or EPA. This quarterly record shall include a certified statement, signed by the owner/operator, that the records of fuel supplier certifications represent all of the fuel combusted during the quarter.
3. The owner/operator shall notify the Office of Air Resources in writing of any physical or operational change to any equipment that would:

- a. Change the representation of the facility in the 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 APC Regulation No. 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.

4. The owner/operator shall notify the Office of Air Resources of any anticipated noncompliance with the terms of this permit or any other applicable air pollution control rules and regulations.
5. The owner/operator shall notify the Office of Air Resources, in writing, of any noncompliance with the terms of this permit within 30 calendar days of becoming aware of such occurrence and supply the Director with the following information:
 - a. The name and location of the facility;
 - b. The subject source(s) that caused the noncompliance with the permit term;
 - c. The time and date of first observation of the incident of noncompliance;
 - d. The cause and expected duration of the incident of noncompliance;
 - e. The estimated rate of emissions (expressed in lbs/hr or lbs/day) during the incident and the operating data and calculations used in estimating the emission rate;
 - f. The proposed corrective actions and schedule to correct the conditions causing the incidence of noncompliance.
6. 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.

G. Other Permit Conditions

1. To the extent consistent with the requirements of this approval and applicable federal and state laws, the facility shall be designed, constructed and operated in accordance with the representation of the facility in the permit application.
2. Employees of the Office of Air Resources and its authorized representatives shall be allowed to enter the facility at all 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.
3. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the facility in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Office of Air Resources which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures and inspection of the source.
4. The owner/operator is subject to the requirements of 40 CFR 60, Subpart A (General Provisions) and 40 CFR 63, Subpart JJJJJ (National Emissions Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers Area Sources). Compliance with all applicable provisions therein is required.