21 October 2003

Mr. Charles Tebbetts
Chief Power Plant Engineer
RHODE ISLAND HOSPITAL
593 Eddy Street
Providence, RI 02903

Dear Mr. Tebbetts:

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 593 Eddy Street, Providence, RI.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval No. 1777).

If there are any questions concerning this permit, please contact me at 222-2808, extension 7011.

Sincerely,

Douglas L. McVay
Associate Supervising Engineer
Office of Air Resources

cc: Providence Building Official

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

MINOR SOURCE PERMIT

RHODE ISLAND HOSPITAL

APPROVAL NO. 1777

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

Rhode Island Hospital

For the following:

Installation of a Foster Wheeler 89.35 MMBtu/hr boiler, Model No. AG-5060. The fuel burning equipment shall be fired with natural gas only.

Located at: *593 Eddy Street, Providence*

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 *Rhode Island 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.**

Stephen Majkut, 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

Rhode Island Hospital

Approval No. 1777

A. Emission Limitations - The following emission limitations are applicable to the 89.35 MMBtu/hr Foster Wheeler boiler, Model No. AG-5060, capable of burning natural gas only.

1. Natural Gas Firing

   a. Nitrogen Oxides (as nitrogen dioxide (NO_2))

      The emission rate of nitrogen oxides discharged to the atmosphere from the boiler shall not exceed 0.036 lb per million BTU heat input or 3.24 lbs/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 0.037 lb per million BTU heat input or 3.31 lbs/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 0.36 lb/hr, whichever is more stringent.

2. Visible emissions from the boiler exhaust flue shall not exceed 10% opacity (six-minute average).

B. Operating Requirements

1. The maximum firing rate of the boiler shall not exceed 87,598 ft^3/hr of natural gas.

2. The flue gas recirculation system shall be in full operation whenever the boiler is in operation.

3. The following requirement is applicable to the 89.35 MMBtu/hr Foster Wheeler boiler, Model No. AG-5060; the 1502-hp Caterpillar Model No. 3508B emergency diesel engine/generator set (Approval No. 1748); and the two 2847-hp Caterpillar Model No. 3516B emergency diesel engine/generator sets (Approval Nos. 1675-1676).

   a. The combined quantity of natural gas and diesel fuel oil combusted in the boiler and the three emergency engine/generator sets shall be limited to 1,296,000,000 cubic feet of natural gas equivalents or less for any consecutive 12-month period. For purposes of this limitation, each gallon of diesel fuel oil combusted in the 1502-hp diesel engine/generator set shall be considered equivalent to 9158 cubic feet of natural gas. Each gallon of diesel fuel oil combusted in either of the two 2847-hp diesel engine/generator sets shall be considered equivalent to 6,405 cubic feet of natural gas.

C. Continuous Monitors

1. Natural gas flow to the boiler shall be continuously measured and recorded.

2. A monitoring device shall be installed, operated and maintained to determine the percent flue gas recirculated on the boiler at any given boiler load.

D. Stack testing

1. Within 60 days of achieving the maximum or normal operating rate, but no later than 180 days of initial start-up, initial performance testing shall be conducted on the Foster Wheeler boiler. Initial performance testing shall be conducted for nitrogen oxides, carbon monoxide, and nonmethane hydrocarbons.

   Thereafter, emissions testing for the boiler shall be conducted annually to determine compliance with the nitrogen oxide emission limitation.

2. A stack testing protocol shall be submitted to the Office of Air Resources for review and approval prior to the performance of any stack tests. The owner/operator shall provide the Office of Air Resources at least 60 days prior notice of any performance test.

3. All test procedures used for stack testing shall be approved by the Office of Air Resources prior to the performance of any stack tests.

4. The owner/operator shall install any and all test ports or platforms necessary to conduct the required stack testing, provide safe access to any platforms and provide the necessary utilities for sampling and testing equipment.

5. All testing shall be conducted under operating conditions deemed acceptable and representative for the purpose of assessing compliance with the applicable emission limitation.

6. All stack testing must be observed by the Office of Air Resources or its authorized representatives to be considered acceptable.

7. A final report of the results of stack testing shall be submitted to the Office of Air Resources no later than 60 days following completion of the testing.

E. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of the month, determine the total quantity of natural gas combusted in the Foster Wheeler 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 notify the Office of Air Resources, in writing within 30 days, whenever the fuel usage for the boiler and three emergency engine/generator sets specified in Condition B.3 exceeds 1,296,000,000 cubic feet of natural gas equivalents in any consecutive 12-month period for the combined quantity of natural gas and diesel fuel oil.

3. The owner/operator shall notify the Office of Air Resources in writing of the anticipated date of the initial start-up of the boiler not more than 60 days nor less than 30 days of the anticipated date.

4. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual initial start-up of the boiler no later than fifteen days after such date.

5. 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 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.

6. 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.

7. The owner/operator shall notify the Office of Air Resources of any noncompliance with the terms of this permit, in writing, within 5 days of the occurrence.

8. 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 Permit Conditions

1. To the extent consistent with the requirements of this permit 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 dated October 2002.

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. The boiler is subject to the requirements of the Federal New Source Performance Standards 40 CFR 60, Subparts A (General Provisions), and Dc (Small Industrial-Commercial-Institutional Steam Generating Units).

4. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate this boiler 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.

5. The Office of Air Resources may reopen and revise this permit if it determines that:

   a. a material mistake was made in establishing the operating restrictions in Condition B.3; or,

   b. inaccurate emission factors were used in establishing the operating restrictions in Condition B.3; or,

   c. emission factors have changed as a result of stack testing or emissions monitoring.

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