

27 July 2006

Mr. Robert Sheldon
Senior Program Director
Earth Tech, Inc.
300 Baker Avenue
Concord, MA 01742

Dear Mr. Sheldon,

The Department of Environmental Management, Office of Air Resources has reviewed and approved your application for the installation of three emergency generators, two located at the Pawtucket Regional Water Treatment Facility, 85 Branch Street, Pawtucket and one located at the Mill Street Pump Station, 120 Mill Street, Cumberland.

Enclosed is a minor source permit issued pursuant to our review of your application (Approval Nos. 1898-1900).

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: Pawtucket Building Official
Cumberland Building Official
Ian Thompson – Earth Tech

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

MINOR SOURCE PERMIT

PAWTUCKET WATER SUPPLY BOARD

APPROVAL NOs. 1898 & 1899

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

Pawtucket Water Supply Board

For the following:

Installation of two Kohler Power Systems Model 1820REOZD 2668 HP emergency generators (Approval Nos. 1898 & 1899). Each generator is to be fired with fuel oil containing 0.05% sulfur, by weight, or less.

Located at: *85 Branch St., Pawtucket*

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 the *Pawtucket Water Supply Board* 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

PAWTUCKET WATER SUPPLY BOARD

APPROVAL NOs. 1898 & 1899

A. Emission Limitations

1. Sulfur Dioxide

All diesel fuel burned in each engine/generator set shall contain no more than 0.05 percent sulfur by weight.

2. Visible emissions from each engine/generator set shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one-hour. This visible emission limitation shall not apply during startup of the engine. Engine startup shall be defined as the first ten minutes of firing following the initiation of firing.

B. Operating Requirements

1. The maximum firing rate for each 2668 HP engine/generator set shall not exceed 123 gallons per hour.
2. Each engine/generator set and the emergency water pump engine shall not operate more than 500 hours in any consecutive 12-month period.
3. Each engine/generator set shall be operated only to provide emergency electrical power in the event of a power outage or for maintenance purposes to assure that the equipment is in working order.
4. The engine/generator sets shall not be used in conjunction with any utility voluntary demand reduction program.

C. Continuous Monitoring

1. Each engine/generator set and the emergency water pump engine shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time.

D. Fuel Oil Testing

1. Compliance with the diesel fuel sulfur limit 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 the Pawtucket Water Supply Board 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. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of each month, determine and record the hours of operation and fuel use for each engine/generator set and the emergency water pump engine for the previous 12-month period.
2. The owner/operator shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12-month period exceed 500 hours for any engine/generator set or the emergency water pump engine.
3. 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.
4. The owner/operator shall maintain copies of all fuel supplier certifications or fuel analyses and these copies shall be made accessible for review by the Office of Air Resources or its authorized representative and EPA. These records shall include a certified statement, signed by the

owner/operator of the facility, that the records represent all of the fuel combusted at the facility.

5. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual start-up of the two 2668 HP engine/generator sets.
6. 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.

7. 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.
8. All records required as a condition of this approval must be made available to the Office of Air Resources or its representative upon request. These records must be maintained for a minimum of five years after the date of each record.

F. Other Permit Conditions

- 1. To the extent consistent with the requirements of this approval and applicable Federal and State laws, each engine/generator set shall be designed, constructed and operated in accordance with the representation of the equipment 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 each engine/generator set 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.

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

MINOR SOURCE PERMIT

PAWTUCKET WATER SUPPLY BOARD

APPROVAL NO. 1900

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

Pawtucket Water Supply Board

For the following:

Installation of a Kohler Power Systems Model 650REOZDB, 986 HP emergency

generator (Approval No. 1900). The generator is to be fired with fuel oil containing 0.05%

sulfur, by weight, or less.

Located at: *120 Mill St., Cumberland*

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 the *Pawtucket Water Supply Board* 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

PAWTUCKET WATER SUPPLY BOARD

APPROVAL NO. 1900

A. Emission Limitations

1. Sulfur Dioxide

All diesel fuel burned in the engine/generator set shall contain no more than 0.05 percent sulfur by weight.

2. Visible emissions from the engine/generator set shall not exceed 10% opacity except for a period or periods aggregating no more than three minutes in any one-hour. This visible emission limitation shall not apply during startup of the engine. Engine startup shall be defined as the first ten minutes of firing following the initiation of firing.

B. Operating Requirements

1. The maximum firing rate for the 986 HP engine/generator set shall not exceed 45.8 gallons per hour.
2. The engine/generator set shall not operate more than 500 hours in any consecutive 12-month period.
3. The engine/generator set shall be operated only to provide emergency electrical power in the event of a power outage or for maintenance purposes to assure that the equipment is in working order.
4. The engine/generator set shall not be used in conjunction with any utility voluntary demand reduction program.

C. Continuous Monitoring

1. The engine/generator set and the emergency water pump engine shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time.

D. Fuel Oil Testing

1. Compliance with the diesel fuel sulfur limit 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 the Pawtucket Water Supply Board 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. Record Keeping and Reporting

1. The owner/operator shall, on a monthly basis, no later than 5 days after the first of each month, determine and record the hours of operation and fuel use for the engine/generator set for the previous 12-month period.
2. The owner/operator shall notify the Office of Air Resources, in writing, whenever the hours of operation in any 12-month period exceed 500 hours for the engine/generator set.
3. 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.
4. The owner/operator shall maintain copies of all fuel supplier certifications or fuel analyses and these copies shall be made accessible for review by the Office of Air Resources or its authorized representative and EPA. These records shall include a certified statement, signed by the owner/operator of the facility, that the records represent all of the fuel combusted at the facility.

5. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual start-up of the 986 HP engine/generator set.
6. 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.

7. 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.
8. All records required as a condition of this approval must be made available to the Office of Air Resources or its representative upon request. These records must be maintained for a minimum of five years after the date of each record.

F. Other Permit Conditions

1. To the extent consistent with the requirements of this approval and applicable Federal and State laws, the engine/generator set shall be designed, constructed and operated in accordance with the representation of the equipment 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 engine/generator set 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.