

28 December 2009

Ms. Catherine Tattrie  
Smith Funeral & Memorial Services  
8 Schoolhouse Road  
Warren, RI 02885

Dear Ms. Tattrie:

The Department of Environmental Management, Office of Air Resources has reviewed and approved your applications for the installation of two crematories at your 8 Schoolhouse Road, Warren, location.

Enclosed are minor source permits issued pursuant to our review (Approval Nos. 2085 & 2086).

I can be reached at 222-2808, extension 7028 if you have any questions.

Very truly yours,

Douglas L. McVay  
Acting Chief  
Office of Air Resources

cc: Warren Building Official

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

MINOR SOURCE PERMIT

*SMITH FUNERAL & MEMORIAL SERVICES*

APPROVAL NO. 2085

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

*Smith Funeral & Memorial Services*

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**For the following:**

*Installation of a B & L Cremation Systems Model N-20AA crematory (Approval No. 2085).*

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*Installation of a B & L Cremation Systems Model BLP-500 crematory (Approval No. 2086).*

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**Located at:** *8 Schoolhouse Road, Warren*

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**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 *Smith Funeral & Memorial Services* 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.**

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**Douglas L. McVay, Acting Chief  
Office of Air Resources**

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**Date of issuance**

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

Permit Conditions and Emission Limitations

**Smith Funeral & Memorial Services**

**Approval No. 2085**

A. Emission Limitations

1. Particulate Matter

The concentration of particulate matter in the exhaust flue of the crematory shall not exceed 0.08 grains per dry standard cubic foot (0.08 gr/dscf) corrected to 12% CO<sub>2</sub>.

2. Carbon Monoxide

The concentration of carbon monoxide in the exhaust flue of the crematory shall not exceed 100 ppmv, dry basis, corrected to 7% oxygen (1-hour average).

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

B. Operating Requirements

1. The owner/operator shall operate the crematory in such a way that the cremation rate of human remains and containers shall not exceed 150 lbs/hour.

2. The owner/operator shall only incinerate human remains and the containers they are placed in.

3. The owner/operator shall only cremate with containers having 0.5% or less, by weight, of chlorinated plastics.

4. The crematory shall be equipped with an interlock to prevent the primary burner from firing unless the secondary chamber temperature is at or above 1600°F.

5. The secondary chamber temperature shall be maintained at a minimum of 1600°F, and the secondary chamber volume shall be of sufficient capacity to provide a minimum residence time for combustion gases of one second at 1800°F.

6. The secondary chamber thermocouple shall be located as close to the secondary chamber exit as possible or at a location that represents a minimum of a one-second residence time at 1600°F.

7. An operator shall always be in attendance whenever the crematory is operating.
8. A crematory operating procedures manual shall be maintained on-site at all times. All personnel who operate the crematory shall be familiar with the operating procedures.

C. Continuous Monitors

1. The secondary chamber temperature shall be monitored and recorded continuously.
2. Continuous emission monitoring equipment shall be installed, operated and maintained for opacity when the crematory is operating.

D. Recordkeeping and Reporting

1. The owner/operator shall maintain the following records concerning the crematory:
  - a. The daily operating hours of the crematory.
  - b. The number of cremations conducted each day.
  - c. The weight of each cremation (human remains and container) in pounds.
  - d. The operating temperature of the secondary chamber.
2. The owner/operator shall notify the Office of Air Resources, in writing, of the date of actual initial start-up of the crematory no later than fifteen days after such date.
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 rule or regulation.
4. 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.
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:
- Change the representation of the facility in the application.
  - Alter the applicability of any state or federal air pollution rules or regulations.
  - Result in the violation of any terms or conditions of this permit.
  - 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. 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.

#### E. Other Permit Conditions

1. To the extent consistent with the requirements of this permit and applicable federal and state laws, the crematory shall be designed, constructed and operated in accordance with the representation of the unit 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. The owner/operator shall shut down the crematory in the event of a malfunction of the unit's air pollution control equipment that results in, or that could result in, emissions in excess of the permit limits. The crematory shall remain shutdown until the malfunction has been identified and corrected.
  
4. At all times, including periods of startup, shutdown and malfunction, the owner/operator shall, to the extent practicable, maintain and operate the crematory 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**

Permit Conditions and Emission Limitations

**Smith Funeral & Memorial Services**

**Approval No. 2086**

A. Emission Limitations

1. Particulate Matter

The concentration of particulate matter in the exhaust flue of the crematory shall not exceed 0.08 grains per dry standard cubic foot (0.08 gr/dscf) corrected to 12% CO<sub>2</sub>.

2. Carbon Monoxide

The concentration of carbon monoxide in the exhaust flue of the crematory shall not exceed 100 ppmv, dry basis, corrected to 7% oxygen (1-hour average).

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

B. Operating Requirements

1. The owner/operator shall operate the crematory in such a way that the cremation rate of animal remains and containers shall not exceed 150 lbs/hour.

2. The owner/operator shall only incinerate animal remains and the containers they are placed in.

3. The owner/operator shall only cremate with containers having 0.5% or less, by weight, of chlorinated plastics.

4. The crematory shall be equipped with an interlock to prevent the primary burner from firing unless the secondary chamber temperature is at or above 1600°F.

5. The secondary chamber temperature shall be maintained at a minimum of 1600°F, and the secondary chamber volume shall be of sufficient capacity to provide a minimum residence time for combustion gases of one second at 1800°F.

6. The secondary chamber thermocouple shall be located as close to the secondary chamber exit as possible or at a location that represents a minimum of a one-second residence time at 1600°F.

7. An operator shall always be in attendance whenever the crematory is operating.
8. A crematory operating procedures manual shall be maintained on-site at all times. All personnel who operate the crematory shall be familiar with the operating procedures.

C. Continuous Monitors

1. The secondary chamber temperature shall be monitored and recorded continuously.
2. Continuous emission monitoring equipment shall be installed, operated and maintained for opacity when the crematory is operating.

D. Recordkeeping and Reporting

1. The owner/operator shall maintain the following records concerning the crematory:
  - a. The daily operating hours of the crematory.
  - b. The number of cremations conducted each day.
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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 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.
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.

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