#AP-06-034
DEC#BR02-0001

State of Vermont
Agency of Natural Resources
Department of Environmental Conservation

Air Pollution Control Division
Waterbury, Vermont

AIR POLLUTION CONTROL PERMIT TO CONSTRUCT AND OPERATE

Date Permit Issued: September 21, 2006

Owner/Operator:	Green Mountain Funeral Services, Inc. d.b.a. Green Mountain Crematory 35 Slate Street Northfield, VT 05663
Source:	Green Mountain Crematory 35 Slate Street Northfield, Vermont 05663

FINDINGS OF FACT

(A) FACILITY DESCRIPTION

Green Mountain Funeral Services, Inc. (d.b.a. Green Mountain Crematory) has proposed to install a B&L Cremation Systems, Inc. Model Phoenix II-1 cremation retort in an existing funeral home (hereinafter "Facility") located at 35 Slate Street in Northfield, Vermont. The retort is designed to fire charges at a rate of 150 pounds per hour and has a total heat input capacity of 2,000,000 British thermal units per hour.

The Facility will continue to operate an existing B&L Cremation Systems, Inc. Model N20AA cremation retort designed to fire charges at a rate of 150 pounds per hour and having a total heat input capacity of 1,500,000 British thermal units per hour.

Green Mountain Funeral Services, Inc. (hereinafter "the Permittee") plans to fire liquefied petroleum gas exclusively in the retorts. The operations performed at the Facility are classified within the Standard Industrial Classification Code7261 (Funeral Services and Crematories).

(B) FACILITY CLASSIFICATION

The Facility is classified as a source of air contaminants pursuant to Title 10 of the *Vermont Statutes Annotated* ("10 *VSA.*") §555 and §5-401(1) "Incinerators", of the *Vermont Air Pollution Control Regulations* (hereinafter "*Regulations*"). In addition, §5-101 of the *Regulations* defines a *stationary source* as any structure(s), equipment, installation(s), or operation(s), or combination thereof, which emit or may emit any air contaminant, which is located on one or more contiguous or adjacent properties and which is owned or operated by the same person or persons under common control. Based on this definition, all of the equipment, operations, and structures at the Facility are grouped together by the Agency of Natural Resources, Department of Environmental Conservation, Air Pollution Control Division (hereinafter "Agency") as one stationary air contaminant source for purposes of review under the *Regulations*.

(C) PRIOR AGENCY ACTIONS/APPROVALS

The Facility has been issued the following "Permit to Construct" approvals pursuant to 10 *VSA* §556 and §5-501 of the *Regulations*.

Prior Agency Approvals and Actions	
Date of Action	Description of Agency Approval/Action
January 29, 2002	#AP-01-060 – Original Agency "Permit to Construct" approval for installation of a installation of a human cremation retort at the Facility.
March 21, 2002	#AP-01-060a –Agency "Permit to Construct" approval extending stack compliance test deadline 180 days.
November 1, 2002	#AP-01-060b – Agency "Permit to Construct" approval extending the stack compliance test deadline to July 1, 2003.

(D) FACILITY PERMIT APPLICABILITY

As noted above, the Facility is classified as a source of air contaminants under §5-401 of the *Regulations*. Pursuant to 10 *VSA* §556 and §5-501 of the *Regulations* a Permit to Construct, or an amendment to any existing Permit to Construct, must be obtained before commencing the construction, installation, modification or operation of an air contaminant source. The proposed installation of a second retort along with the associated increase in fuel usage is considered a modification to the Facility under the *Regulations* and consequently a Permit to Construct must be obtained.

Pursuant to 10 *VSA* §556a and Subchapter X of the *Regulations* a Permit to Operate is required for any air contaminant source with allowable emissions of all air contaminants combined of ten (10) tons per year ("tpy") or more or that is subject to a standard, limitation or other requirement under §111 and/or §112 of the Clean Air Act. Allowable emissions from the Facility are estimated to be less than ten (10) tpy combined and therefore the Facility is not required to obtain a Permit to Operate consistent with the requirements of Subchapter X of the *Regulations*.

Future Allowable Air Contaminant Emissions (tons/year)[1]						
PM/PM_{10}	SO_2	NO_x	CO	VOCs	Total Criteria	HAPs[2]
1.4	<0.1	2.4	0.3	<0.1	<10	<10/25

[1] PM/PM_{10} - particulate matter and particulate matter of 10 micrometers in size or smaller; SO_2 - sulfur dioxide; NO_x - oxides of nitrogen measured as NO_2 equivalent; CO - carbon monoxide; VOCs - volatile organic compounds; HAPs - hazardous air pollutants as defined in §112 of the federal Clean Air Act.

[2] Emissions of individual HAPs each < 10 tpy and emissions of total HAPs combined <25 tpy. Actual total combined HAPs estimated at <1 tpy.

(E) REVIEW FOR THE PERMIT TO CONSTRUCT

(a) New Source Review Designation

The Facility, prior to the construction of the proposed modification, is designated as a non-major stationary source of air contaminants since it does not have allowable emissions of a single air contaminant of fifty (50) tons per year or greater. Consequently, any *modification* of the source that would result in a significant increase in emissions of any air contaminant, as defined in §5-101 of the *Regulations*, is designated as a major modification and is subject to review under §5-501 and §5-502 of the *Regulations*. The proposed project identified in Findings of Fact (A) above, together with all previous minor modifications constructed at the Facility since July 1, 1979, and which have not been previously reviewed under §5-502 of the *Regulations*, will not result in a significant increase in emissions. Consequently, the proposed modification is designated as a non-major modification and is not subject to the requirements of §5-502 of the *Regulations*.

(b) Most Stringent Emission Rate

Pursuant to §5-502 of the *Regulations*, the owner/operator of each new major stationary source or major modification must apply control technology adequate to achieve the Most Stringent Emission Rate ("MSER") with respect to those air contaminants for which there would be a major or significant actual emissions increase, respectively, but only for those currently proposed physical or operational changes which would contribute to the increased emissions.

The proposed project is designated as a non-major modification of a stationary source and therefore is not subject to review under the MSER requirements in §5-502 of the *Regulations*. In addition, there have been no prior MSER evaluations conducted for any of the previous modifications to the Facility.

(c) Ambient Air Quality Impact Evaluation

An ambient air quality impact evaluation is performed to demonstrate whether or not a proposed project will cause or contribute to violations of the ambient air quality standards and/or significantly deteriorate existing air quality. The Agency's implementation procedures concerning the need for an ambient air quality impact evaluation under §5-406(1) of the *Regulations*, specifies that such analyses may be required when a project results in an allowable emissions increase of ten (10) tons per year or more of any air contaminant, excluding VOCs. Additionally, the Agency may require an air quality impact evaluation where the short-term allowable emission rates will significantly increase as a result of a project.

Based on the level of emissions from this Facility, it is not expected to cause or contribute to a violation of any ambient air quality standard or significantly deteriorate air quality. Therefore, an air quality impact evaluation was not required by the Agency for the proposed project.

(d) Applicable Requirements

The operations at the Facility are subject to the following state and federal laws and regulations, the requirements of which are embodied in the conditions of this Permit.

(i) *Vermont Air Pollution Control Regulations*:

Applicable Requirements from the Vermont Air Pollution Control Regulations
Section 5-201 – Prohibition of Open Burning
Section 5-211(2) - Prohibition of Visible Air Contaminants, Installations Constructed Subsequent to April 30, 1970.
Section 5-221(1) - Prohibition of Potentially Polluting Materials in Fuel, Sulfur Limitation in Fuel.
Section 5-231(2) - Prohibition of Particulate Matter; Incinerator Emissions.
Section 5-241 – Prohibition of Nuisance and Odor.
Section 5-403 – Circumvention.

(ii) Reasonably Available Control Technology - §5-1010 of the *Regulations*

Pursuant to 10 *VSA* §556a(d) and §5-1010 of the *Regulations* the Agency may establish and include within any Permit to Operate emission control requirements based on Reasonably Available Control Technology ("RACT"). The Agency has not imposed any RACT requirements on this Facility under this authority at this time.

(iii) Existing Air Pollution Control Permit to Construct

The Facility currently operates under the confines of a Permit to Construct issued on November 1, 2002 (#AP-01-060b). The conditions within that existing permit are considered applicable requirements pursuant to §5-1002 of the *Regulations*. The requirements of that permit which are not being modified herein are incorporated into this new Permit to Construct (#AP-06-034).

(iv) Federal Requirements:

There are no federal requirements applicable to the Facility.

(e) Non-Applicable Requirements

Pursuant to §5-1015(a)(14) of the *Regulations*, an owner or operator of a Facility may request a permit shield from specific state or federally enforceable regulations

and standards which are not applicable to the source. The applicant has not requested such a permit shield in accordance with the requirements of §5-1015(a)(14) of the *Regulations*.

(F) HAZARDOUS MOST STRINGENT EMISSION RATE

Pursuant to §5-261 of the *Regulations*, any stationary source whose current or proposed actual emission rate of a hazardous air contaminant ("HAC") is equal to or greater than the respective Action Level (found in Appendix C of the *Regulations*) shall achieve the Hazardous Most Stringent Emission Rate ("HMSER") for the respective HAC. Pursuant to §5-261(1)(b)(ii) of the *Regulations*, all fuel burning equipment which combusts virgin liquid or gaseous fuel is exempt from this section. The Facility is not expected to have regulated emissions of any HAC in excess of an Action Level. Therefore, the Facility is not subject to §5-261 of the *Regulations* at this time.

Based on the Agency's review of the Facility's application and the above Findings of Fact, the Agency concludes that the Facility, subject to the following Permit conditions, complies with all applicable state and federal air pollution control laws and regulations or is subject to an acceptable schedule of compliance. Therefore, pursuant to 10 *VSA* §556, as amended, the Agency hereby issues a Permit approving the Facility, as described in the above Findings of Fact, subject to the following:

PERMIT CONDITIONS

- Construction and Equipment Specifications -

(1) The Permittee shall construct and operate the Facility in accordance with the plans and specifications submitted to the Agency and in accordance with the conditions set forth herein, including the equipment specifications as listed in Findings of Fact (A) or their equivalent as approved by the Agency. [10 *V.S.A.* §§556(c) and 556a(d)] [§5-501(1) of the *Regulations*]

(2) The Permittee shall ensure that the last combustion chamber or zone of each cremation unit is preheated to a temperature of at least 1,600^{0}F prior to introduction of the charge and shall maintain said temperature throughout the remainder of the cremation unit's operation cycle. All elements of the cremation unit shall be maintained in good working order at all times. The cremation unit shall be operated and maintained in accordance with the manufacturer's operation and maintenance recommendations. [10 *V.S.A.* §556(c)] [§5-231(2)(c) of the *Regulations*]

(3) The exhaust gases from each cremation unit shall be vented vertically through a stack which extends a minimum of four (4) feet above the roofline. The Permittee shall at the request of the Agency increase the stack height of any respective stack if, in the judgment of the Agency based on inspections of the actual operations at the Facility, proper or adequate dispersion can not be maintained at the current stack height. The stacks shall not be equipped with any device that may obstruct the upward discharge of the exhaust gases such as a fixed raincap. [10 *V.S.A.* §556(c)] [§5-406 of the *Regulations*]

(4) The Permittee shall only introduce and charge human remains, limited amounts of associated surgical wastes including but not limited to disposable sharps, gloves, gowns and dressings, and associated combustible waste containers which have been approved by the Agency. Associated surgical wastes shall be limited to that generated by The Permittee only. [10 *V.S.A.* §556(c)]

(5) The Permittee shall insure that all operators of the cremation units receive training on the proper operation of the unit from the manufacturer, vendor or another qualified source. The Permittee shall display, near each unit, certification of that training and a certified operator shall be on-site and available during all periods of operation. [§5-402(1) of the *Regulations*]

(6) The Permittee shall, under no circumstances, fire any plastics containing poly vinyl chlorides (PVCs), caskets made predominantly of fiberglass and/or plastic, household wastes, trash or other solid wastes in the cremation units. Failure to comply with this condition shall be grounds for revocation of this Permit. [§5-241(1) of the *Regulations*]

- Operational Limitations -

(7) The Permittee shall fire only liquified propane gas ("LP-gas") in the cremation unit's burners unless prior written approval from the Agency to use another type of fuel is obtained. [10 *V.S.A.* §556(c)]

(8) Only fuel with maximum sulfur content not to exceed 2.0 percent by weight may be fired in the cremation units. [§5-221(1)(a) of the *Regulations*]

- Emission Limitations -

(9) Emissions of visible air contaminants from any installation at the Facility shall not exceed twenty (20) percent opacity for more than a period or periods aggregating to six minutes in any hour, and at no time shall they exceed sixty (60) percent opacity.

Any emission testing conducted to demonstrate compliance with the above emission limits shall be performed in accordance with the proposed Federal Reference Method F-1 contained in the Federal Register Vol.51, No.168, pp. 31076-31081, August 29, 1986 or an equivalent method approved in writing by the Agency. [§§5-211(2), 5-211(3) and 5-404 of the *Regulations*]

(10) The Permittee shall not emit from the cremation units any gases that contain particulate matter in excess of 0.06 grains per dry standard cubic foot, corrected to seven (7) percent oxygen. All sampling runs conducted as part of emission tests intended to demonstrate compliance with the emission limits specified above shall begin when waste material is first introduced into the cremation unit.

Any emission testing conducted to demonstrate compliance with the above emission limit shall be performed in accordance with Title 40 Code of Federal Regulations Part 60, Appendix A, Reference Method 5 or an equivalent method approved in writing by the Agency. [§§5-231(2)(c) and 5-404 of the *Regulations*]

(11) The Permittee shall not discharge, cause, suffer, allow, or permit from any source whatsoever such quantities of air contaminants or other material which will cause injury, detriment, nuisance or annoyance to any considerable number of people or to the public or which endangers the comfort, repose, health or safety of any such persons or the public or which causes or has a natural tendency to cause injury or damage to business or property. The Permittee shall not discharge, cause, suffer, allow, or permit any emissions of objectionable odors beyond the property line of the premises. [§5-241(1) and (2) of the *Regulations*]

- Monitoring, Record Keeping and Reporting -

(12) The Permittee shall have the cremation units inspected and maintained at least annually by the manufacturer or a qualified service representative. The Permittee shall develop and implement an operation and maintenance plan for the cremation unit prior to initial start-up of the system. The Permittee shall revise this plan at the Agency's request or on its own motion to reflect equipment or operational changes. Said operation and maintenance plan shall be present at the Facility at all times and shall be made available to representatives of the Agency upon request.

The operation and maintenance plan shall include, but not be limited to, a description of proper operating procedures, provisions for maintaining records of daily and routine maintenance inspections, findings of those inspections, and any corrective actions taken. [10 *V.S.A.* §556(c)] [§5-402(1) of the *Regulations*]

(13) The Permittee shall notify the Agency in writing of the date of initial start-up of the proposed B&L Cremation Systems Model Phoenix II-1 cremation unit within fifteen (15) days after such date. [§5-402(1) of the *Regulations*]

(14) If requested by the Agency, the Permittee shall notify the Agency at least one (1) day in advance of all scheduled cremations for a specified period of time. [§5-402(1) of the *Regulations*]

(15) The Permittee shall maintain, for each cremation unit, an operator's log book to record the following information: operators' name, date, number of charges per day, start and stop time of each charge, approximate weight of each charge including casket if present, casket description if present (wood, cardboard, crematory friendly casket designed for cremation use, approximate weight) and initial temperature of last combustion zone before charging. A separate section of the log book will also be maintained containing records of material safety data sheets (MSDSs) on any plastics fired within the cremation unit. Said log book shall be present at the Facility at all times and shall be made available to representatives of the Agency upon request. [§5-402(1) of the *Regulations*]

(16) Annual Registration: The Permittee shall calculate the quantity of emissions of air contaminants from the Facility annually. If the Facility emits more than five (5) tons of any and all air contaminants per year, the Permittee shall register the source with the Secretary of the Agency (hereinafter "Secretary"), and shall renew such registration annually. Each day of operating a source which is subject to registration without a valid, current registration shall constitute a separate violation and subject the Permittee to civil penalties. The registration process shall follow the procedures set forth in Subchapter VIII of the *Regulations*, including the payment of the annual registration fee on or before May 15 of each year. [Subchapter VIII §§5-802, 5-803, 5-807, 5-808 of the *Regulations*]

(17) All records shall be retained for a minimum period of five (5) years from the date of record and shall be made available to the Agency upon request. [§§5-402(1) and 5-405(1) of the *Regulations*]

(18) The Permittee shall notify the Agency in writing within ten (10) days of any violation, of which it is aware, of any requirements of this Permit. This notification shall include, at a minimum, the cause for the violation and corrective action or preventative maintenance taken to correct the violation. [§§5-402(1) of the *Regulations*]

(19) The Permittee shall notify the Agency in writing of any proposed physical or operational change at the Facility which may increase the emission rate of any air contaminant to the ambient air regardless of any concurrent emission reductions that may be achieved. If the Agency determines that a permit amendment is required, a new application and the appropriate application fee shall be submitted. The permit amendment shall be obtained prior to commencing any such change. [10 *V.S.A.* §556(c)] [§§5-402(1) and 5-501 of the *Regulations*]

(20) All records, reports, and notifications that are required to be submitted to the Agency by this Permit shall be submitted to:

Agency of Natural Resources
Air Pollution Control Division
103 South Main Street, Bldg 3 South
Waterbury, Vermont 05671-0402.

[§5-402(1) of the *Regulations*]

- Standard Permit Conditions -

(21) Approval to construct or modify under this Permit shall become invalid if construction or modification is not commenced within eighteen (18) months after issuance of this Permit, if construction or modification is discontinued for a period of eighteen (18) months or more, or if construction is not substantially completed within a reasonable time. The Agency may extend any one of these periods upon a satisfactory showing that an extension is justified. The term "commence" as applied to the proposed construction or modification of a source means that the Permittee either has:

(a) Begun, or caused to begin, a continuous program of actual on-site construction or modification of the source, to be completed within a reasonable time; or

(b) Entered into binding agreements or contractual obligations, which cannot be cancelled or modified without substantial loss to the Permittee, to undertake a continuous program of actual on-site construction or modification of the source to be completed within a reasonable time.

[10 *V.S.A.* §556(c)] [§5-501 of the *Regulations*]

(22) These Permit conditions may be suspended, terminated, modified, or revoked for cause and reissued upon the filing of a written request with the Secretary of the Agency (hereinafter "Secretary") or upon the Secretary's own motion. Any modification shall be granted only with the written approval of the Secretary. If the Secretary finds that modification is appropriate, only the conditions subject to modification shall be re-opened. The filing of a request for modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated non-compliance does not stay any terms or conditions of this Permit. The Secretary may provide opportunity for public comment on any proposed modification of these conditions. If public comments are solicited, the Secretary shall follow the procedures set forth in 10 *V.S.A.* §556 and §556a, as amended. [10 *V.S.A.* §§556(d) and 556a(g)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]

(23) The Permittee shall furnish to the Agency, within a reasonable time, any information that the Agency may request in writing to determine whether cause exists to modify, revoke, reissue, or terminate the Permit or to determine compliance with this Permit. Upon request, the Permittee shall also furnish to the Agency copies of records required to be kept by this Permit. [10 *V.S.A.* §§556(c) and 556a(d)] [§5-402(1) of the *Regulations*] [40 *CFR* Part 70 §70.6(a)(6)(v)]

(24) By acceptance of this Permit, the Permittee agrees to allow representatives of the State of Vermont access to the properties covered by the Permit, at reasonable times, to ascertain compliance with Vermont environmental and health statutes and regulations and with this

Permit. The Permittee also agrees to give the Agency access to review and copy any records required to be maintained by this Permit, and to sample or monitor at reasonable times to ascertain compliance with this Permit. [10 *V.S.A.* §§556(c), and 557] [§§5-402(1), 5-404, and 5-1015(a)(10) of the *Regulations*]

(25) All data, plans, specifications, analyses and other information submitted or caused to be submitted to the Agency as part of the application for this Permit or an amendment to this Permit shall be complete and truthful and, for Title V permit applications, certified by a responsible official whose designation has been approved by the Secretary. Any such submission which is false or misleading shall be sufficient grounds for denial or revocation of this Permit, and may result in a fine and/or imprisonment under the authority of Vermont statutes. [10 *V.S.A.* §556(c)] [§§5-505 and 5-1006(f) of the *Regulations*]

(26) For the purpose of establishing whether or not a person has violated or is in violation of any condition of this Permit, nothing in this Permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [10 *V.S.A.* §556(c)]

(27) Any permit noncompliance could constitute a violation of the federal Clean Air Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. [10 *V.S.A.* §556(c)] [§§5-1008(a) and 5-1008(e) of the *Regulations*]

(28) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this Permit. [10 *V.S.A.* §556(c)]

(29) No person shall build, erect, install or use any article, machine, equipment or other contrivances, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which otherwise would constitute a violation of these *Regulations*. [§5-403 of the *Regulations*]

(30) The provisions of this Permit are severable. If any provision of this Permit, or its application to any person or circumstances is held invalid, illegal, or unenforceable by a court of competent jurisdiction, the invalidity shall not apply to any other portion of this Permit which can be given effect without the invalid provision or application thereof. [10 *V.S.A.* §556(c)]

(31) This Permit does not convey any property rights of any sort or any exclusive privilege, nor does it authorize any injury to private property or any invasion of personal rights. [10 *V.S.A.* §556(c)]

(32) All subsequent owners and/or operators of this Facility must request an amendment and transfer of this Permit prior to commencing any operations covered by this Permit. All subsequent owners and/or operators shall submit to the Agency as part of the request for amendment all such information the Agency deems necessary to establish legal ownership and/or interest in the property and all such information the Agency deems necessary to ensure the new owners and/or operators will construct and operate the Facility in compliance with the *Regulations* and this Permit. The terms and conditions of this Permit

shall remain in full force and effect after submittal of the request for amendment and until the issuance of an amended Permit or denial. Should the Secretary deny the request, the new owner and/or operator must take whatever action is necessary to comply with the denial. [10 *V.S.A.* §556] [§§5-501, 5-1004, and 5-1013(a) of the *Regulations*]

(33) Pursuant to 10 V.S.A. Chapter 220, any appeal of this decision must be filed with the clerk of the Environmental Court within 30 days of the date of the decision. The appellant must attach to the Notice of Appeal the entry fee of $225.00 payable to the State of Vermont. The Notice of Appeal must specify the parties taking the appeal and the statutory provision under which each party claims party status; must designate the act or decision appealed from; must name the Environmental Court; and must be signed by the appellant or their attorney. In addition, the appeal must give the address or location and description of the property, project or facility with which the appeal is concerned and the name of the applicant or any permit involved in the appeal. The appellant must also serve a copy of the Notice of Appeal in accordance with the Rule 5(b)(4)(B) of the Vermont Rules for Environmental Court Proceedings. For further information, see the Vermont Rules for Environmental Court Proceedings, available on-line at www.vermontjudiciary.org. The address for the Environmental Court is 2418 Airport Road, Suite 1, Barre, Vermont 05641 (Tel. #802-828-1660).

(34) The conditions of this Permit as set forth above supercede all conditions contained in all prior Permits issued by the Agency to the Permittee for this Facility. [10 *V.S.A.* §556(c)]

The Agency's issuance of this Air Pollution Control Permit relies upon the data, judgment, and other information supplied by the Permittee. The Agency makes no assurances that the air contaminant source approved herein will meet performance objectives or vendor guarantees supplied to the source Permittee. It is the sole responsibility of the Permittee to operate the source in accordance with the conditions herein and with all applicable state and federal standards and regulations.

Dated this 21st day of September, 2006, in the town of Waterbury, county of Washington, state of Vermont.

Agency of Natural Resources

Jeffrey Wennberg, Commissioner
Department of Environmental Conservation

By: Richard A. Valentinetti
Richard A. Valentinetti, Director
Air Pollution Control Division

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