PERMIT BOOK

STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 052006-011 Project Number: 2006-02-081

Owner: White & Watson Funeral Home

Owner's Address: 1110 Chinquanpin Woods, Casville, MO 65625

Installation Name: White & Watson Funeral Home, LLC

Installation Address: 1110 Chinquanpin Woods, Cassville, MO 65625

Location Information: Barry County, S32, T23, R37

Application for Authority to Construct was made for:

Installation of two (2) B & L Cremation Systems, Inc. crematories. One is a human crematory, model N-20, and the other is a pet crematory, model BLP 200/75. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required.*

☐ Standard Conditions (on reverse) are applicable to this permit.

☑ Standard Conditions (on reverse) and Special Conditions (listed as attachments starting on page 2) are applicable to this permit.

MAY 17 2006

EFFECTIVE DATE

Steven Fuller for JHK

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

MO 780-1204 (1-03)

STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional Office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed Special Conditions as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. "Conditions required by permitting authority."

White & Watson Funeral Home, LLC
Barry County, S32, T23, R37

1. Process Requirements for the Human and Animal Crematories (BL-01 & BL-02)
   A. White & Watson Funeral Home will burn exclusively non-infectious human and animal bodies or body parts not in containers and non-infectious human and animal bodies or body parts in containers not containing chlorine.

   B. The batch-type incinerators shall have an operable door lockout mechanism that prohibits the charging of waste between burn cycles.

   C. The incinerators shall be equipped with a continuous chart recorder that is able to monitor, display and record the temperature in the final combustion chamber to an accuracy of plus or minus two percent (2%).

   D. The incinerators shall have a minimum combustion efficiency of 99.9% determined from the carbon dioxide (CO_2) concentration divided by the sum of the carbon monoxide (CO) and CO_2 concentrations.

2. Record Keeping Requirements
   White & Watson Funeral Home shall maintain an accurate record of the monthly amount and type of waste combusted at this installation. The installation shall use Attachment A or other equivalent form(s) approved by the Air Pollution Control Program for this purpose. White & Watson Funeral Home shall maintain records on-site for the most recent 60 months of all records required by this permit and shall immediately make such records available to any Missouri Department of Natural Resources' personnel upon verbal request.

3. Opacity
   The incinerators (BL-01 & BL-02) shall have opacity of less than ten percent (10%) at all times.

4. Operator Requirements for the Human and Animal Crematories (BL-01 & BL-02)
   A. All incinerator operators shall attend a training program equivalent to that developed by the American Society of Mechanical Engineers (ASME), by

SPECIAL CONDITIONS:

The permittee is authorized to construct and operate subject to the following special conditions:

the incinerator manufacturer or by an individual with more than one (1) year experience in the operation of the incinerator. The training shall include basic combustion theory, operating procedures, monitoring of combustion control parameters and all emergency procedures to be followed if the incinerator should malfunction or exceed operating parameters.

B. The incinerator operator shall have the essential steps necessary for satisfactory operation of the incinerator readily available to him in an easy to read and follow manual.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW
Project Number: 2006-02-081
Installation ID Number: 009-0067
Permit Number:

White & Watson Funeral Home, LLC
1110 Chinquanpin Woods,
Cassville, MO 65625

Complete: March 14, 2006
Reviewed: March 27, 2006

Parent Company:
White & Watson Funeral Home
1110 Chinquanpin Woods
Casville, MO 65625

Barry County, S32, T23, R37

REVIEW SUMMARY

- White & Watson Funeral Home, LLC has applied for authority to install two (2) B & L Cremation Systems, Inc. crematories. One is a human crematory, model N-20, and the other is a pet crematory, model BLP 200/75.

- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment, but in insignificant amounts.

- None of the New Source Performance Standards (NSPS) apply to the proposed equipment. Subparts Ce and Ec do not apply to this installation as it is not combusting hospital, medical or infectious waste.

- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.

- No air pollution control equipment is being used in association with the new equipment.

- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. All incinerators are required to obtain a permit from the Air Pollution Control Program as mandated in 10 CSR 10-6.060. Potential emissions are less than de minimis levels.

- This installation is located in Barry County, an attainment area for all criteria air pollutants.

- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].

- Ambient air quality modeling was not performed since potential emissions of the application are below de minimis levels.

- Emissions testing is not required for the equipment. Stack testing was conducted on similar units and approved by the Air Pollution Control Program.

- A Basic Operating Permit application is required for this installation within 30 days of equipment startup.

- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

White & Watson Funeral Home, LLC, located in Cassville, Missouri, will provide cremation services for handling human and pet remains. No permits have been issued to White & Watson Funeral Home, LLC from the Air Pollution Control Program. All incinerators are required to obtain an operating permit from the Air Pollution Control Program as mandated in 10 CSR 10-6.065(3)(B). Therefore, this installation will require a basic operating permit.

PROJECT DESCRIPTION

White & Watson Funeral Home has applied for authority to construct two (2) B&L Cremation System crematories. The first crematory, Model N-20, will be used for the cremation of deceased human remains, and the second crematory, Model BLP 200/75 will be used for the cremation of deceased animal remains. The human crematory is a multiple chamber design and has a rated capacity of 150 pounds per hour. This crematory is fired solely by natural gas and has a burner rated at 1.5 million Btu per hour. The pet crematory is a multiple chamber design unit with a rated capacity of 75 pounds per hour. It is also fired by natural gas and has a burner rated at 1.1 million Btu per hour. Each crematory will have its own separate stack.

The test results for the B & L Systems units were previously approved by the Air Pollution Control Program and similar units have been permitted. White & Watson Funeral Home also submitted compliance testing with the application. For the human crematory, compliance testing was performed at a unit in St. Petersburg, FL on March 5, 2003. Results from that test demonstrated de minimis emissions from that incinerator for particulate matter less than ten microns (PM_{10}), volatile organic compounds (VOCs), nitrogen oxides (NO_X), carbon monoxide (CO) and sulfur dioxide (SO_2). For the pet crematory, compliance testing was performed at a unit in Brooksville, FL on August 20, 1993. Results from that test demonstrated de minimis emissions from that incinerator for PM10 and CO. Due to the nature of pathological waste incineration, hydrogen chloride (HCl) and metal emissions, such as lead, antimony, mercury and cadmium, may be present. However, these emissions should be small enough to be considered insignificant for both incinerators.

EMISSIONS/CONTROLS EVALUATION

With regards to the human crematory, the emission factors for PM_{10}, VOC, CO, NO_X and SO_X used in this review were obtained from a stack test performed on a similar incinerator. The emission factor used in the analysis of HAP emissions was obtained from the Factor Information Retrieval (FIRE) Data System Version 6.24 for SCC 3-15-021-01. The composite emission factor of HAPs listed in FIRE was 0.076 pounds of HAP per body cremated and it was assumed that one body could be cremated per hour.

With regards to the pet crematory, the emission factors for PM_{10} and CO used in this review were obtained from a stack test performed on a similar incinerator. Potential emissions of SO_x, NO_x and VOCs were estimated using emission factors from FIRE for SCC 5-02-001-01. Potential emissions of HAPs were estimated using the same FIRE emission factor as used in the human crematory.

There is no control equipment for either of these units.

Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year). The following table provides an emissions summary for this project. Since this is a new installation, there are no existing potential or existing actual emissions.

Table 1: Emissions Summary (tons per year)

Pollutant	**Regulatory *De Minimis* Levels**	**Existing Potential Emissions**	**Existing Actual Emissions (2004 EIQ)**	**Potential Emissions of the Application**	**New Installation Conditioned Potential**
PM_{10}	15.0	N/A	N/A	1.05	N/A
SOx	40.0	N/A	N/A	0.89	N/A
NOx	40.0	N/A	N/A	2.16	N/A
VOC	40.0	N/A	N/A	0.51	N/A
CO	100.0	N/A	N/A	0.10	N/A
HAPs	10.0/25.0	N/A	N/A	0.41	N/A

N/A = Not Applicable; N/D = Not Determined

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions are less than de minimis levels.

APPLICABLE REQUIREMENTS

White & Watson Funeral Home, LLC shall comply with the following applicable

requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information,* 10 CSR 10-6.110
  The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.

- *Operating Permits*, 10 CSR 10-6.065

- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170

- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220

- *Restriction of Emission of Odors*, 10 CSR 10-3.090

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

_____ _____

Susan Heckenkamp Date
Environmental Engineer

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 15, 2006, received February 21, 2006, designating White & Watson Funeral Home as the owner and operator of the installation.

- Stack Tests report submitted with the application.

- Factor Information Retrieval (FIRE) V6.24, *Source Classification Codes and Emission Factors Listing for Criteria Air Pollutants*.

ATTACHMENT A: Waste Tracking Worksheet

White & Watson Funeral Home, LLC
Barry County, S32, T23, R37
Project Number: 2006-02-081
Installation ID Number: 009-0067
Permit Number:

This sheet covers the period from _____ to _____.
(month/year) (month/year)

Copy this sheet as needed.

Date (month/year)	Type of Waste Combusted	Amount of Waste Combusted (pounds)

Mr. Steve Watson
Co-Owner
White & Watson Funeral Home, LLC
1110 Chinquanpin Woods
Cassville, MO 65625

RE: New Source Review Permit - Project Number: 2006-02-081

Dear Mr. Watson:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files.

Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.

If you have any questions regarding this permit, please do not hesitate to contact me at (573) 751-4817, or you may write to me at the Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102.

Thank you,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:smhm

Enclosures

c: Southwest Regional Office
PAMS File 2006-02-081

Permit Number: