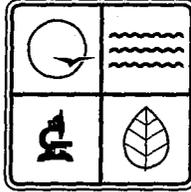


STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

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: **042006-011** Project Number: 2006-02-046

Owner: Animal Cremation Service, LLC

Owner's Address: PO Box 447, Imperial, MO 63052

Installation Name: Animal Cremation Service, LLC

Installation Address: 1545 Hensley Lane, Festus, MO 63028

Location Information: Jefferson County, S26, T41, R5

Application for Authority to Construct was made for:

Installation of a Therm-Tec Model G-30-P animal incinerator. 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.

APR 24 2006

EFFECTIVE DATE


DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

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.

2006-02-046

Animal Cremation Service, LLC

PO Box 447, Imperial, MO 63052

Animal Cremation Service, LLC

1545 Hensley Lane, Festus, MO 63028

Jefferson County, S26, T41, R5

Installation of a Therm-Tec Model G-30-P animal incinerator. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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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."

Animal Cremation Service, LLC
Jefferson County, S26, T41, R5

1. Process Requirements
 - A. Animal Cremation Service, LLC will burn exclusively non-infectious animal bodies or body parts not in containers and non-infectious animal bodies or body parts in containers not containing chlorine.
 - B. The incinerator shall have an operable door lockout mechanism that prohibits the charging of waste between burn cycles.
 - C. The incinerator 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 incinerator shall have a minimum combustion efficiency of 99.9% determined from the carbon dioxide (CO₂) concentration divided by the sum of the carbon monoxide (CO) and CO₂ concentrations.
2. Record Keeping Requirements
Animal Cremation Service, LLC 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. Animal Cremation Service, LLC 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 incinerator shall have opacity of less than ten percent (10%) at all times.
4. Operator Requirements
 - A. All incinerator operators shall attend a training program equivalent to that developed by the American Society of Mechanical Engineers (ASME), by

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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/her in an easy to read and follow manual.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2006-02-046
Installation ID Number: 099-0150
Permit Number:

Animal Cremation Service, LLC
1545 Hensley Lane
Festus, MO 63028

Complete: February 8, 2006
Reviewed: March 24, 2006

Parent Company:
Animal Cremation Service, LLC
PO Box 447
Imperial, MO 63052

Jefferson County, S26, T41, R5

REVIEW SUMMARY

- Animal Cremation Service, LLC has applied for authority to install a Therm-Tec Model G-30-P animal incinerator.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. However, since this unit is burning pathological waste, HAP emissions are not expected to be significant.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment.
- 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 Jefferson County, a nonattainment area for ozone (O₃) and an attainment area for all other 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.
- On February 8, 2006 the Air Pollution Control Program received a Basic Operating Permit Amendment to include the Therm-Tec Model G-30-P incinerator from Animal Cremation Service, LLC (project #2006-02-047).
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

Animal Care Service, Incorporated has applied for the authority to construct a liquefied propane gas fired incinerator. This incinerator, Therm-Tec Model G-30-P, will be used to incinerate animals from veterinary clinics, humane societies, and city or county animal shelters.

A Basic Operating Permit was issued by the Air Pollution Control Program on May 20, 2002 (Project Number 2002-01-035). The following New Source Review permits have been issued to Animal Care Service from the Air Pollution Control Program.

Table 1: Previous New Source Review permit(s)

Permit Number	Description
092003-001	A Section (5) permit for the authority to install a Therm-Tec Model G-30-P animal incinerator.
032002-014	A Section (5) permit for the authority to install a Therm-Tec Model G-30-P animal incinerator.
012003-013	A Section (5) permit for the authority to install one Shenandoah Model C6 and one Therm-Tec Model G-12-P-1 animal incinerator.

PROJECT DESCRIPTION

The Therm-Tec incinerator is fired by liquefied propane gas and is capable of charging 340 pounds of carcasses per hour. A performance test conducted on October 17, 2002 in Festus, Missouri for the same size unit was submitted to the Air Pollution Control Program as required by permit number 032002-014 and subsequently approved by the Enforcement Section, Compliance Unit.

Due to the nature of pathological waste incineration, metal emissions may be present, such as antimony, lead, mercury and cadmium. However, these emissions should be small enough to be considered insignificant.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this review for particulate matter less than 10 microns (PM₁₀) and carbon monoxide (CO) were obtained from the aforementioned stack test. The emission factors for sulfur oxides (SO_x), nitrogen oxides (NO_x), and volatile organic compounds (VOCs) emissions was obtained from the Factor Information Retrieval (FIRE) Data System Version 6.24 for SCC 5-02-001-01 and compared to the emission factors from liquefied propane gas combustion which were obtained from the U.S. Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Section 1.5, *Liquefied Petroleum Gas Combustion*. The emission factors that resulted in the highest emissions for SO_x, NO_x, and VOCs emissions were then used. No pollution control equipment is in use with this process.

Table 2 gives an emissions summary for the potential emissions from the incinerator. Potential emissions were calculated based on the maximum hourly design rate of the incinerator (340 pounds per hour, 3.35 MMBtu per hour) operating at 8,760 hours annually. Existing potential emissions were determined from permit number 092003-001 and by using the revised emission factors as determined by the required stack test.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory De Minimis Levels	Existing Potential Emissions	Existing Actual Emissions (2000 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	4.51	N/A	1.18	N/A
SO _x	40.0	28.11	N/A	13.50	N/A
NO _x	40.0	10.73	N/A	3.29	N/A
VOC	40.0	7.94	N/A	3.29	N/A
CO	100.0	5.30	N/A	0.22	N/A
HAPs	10.0/25.0	N/D	N/A	N/D	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 of all pollutants are below de minimis levels.

APPLICABLE REQUIREMENTS

Animal Cremation Service, 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.

Michael Van Cleave
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated February 6, 2006, received February 8, 2006, designating Animal Cremation Service, LLC as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- St. Louis Regional Office Regional Office Site Survey, dated March 7, 2006.

Mr. Don Courtney
Manager
Animal Cremation Service, LLC
1545 Hensley Lane
Festus, MO 63028

RE: New Source Review Permit - Project Number: 2006-02-046

Dear Mr. Courtney:

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 for your attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:shl

Enclosures

c: St. Louis Regional Office
PAMS File 2006-02-046

Permit Number: