



## 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: **06 2 0 0 8 - 0 0 4** Project Number: 2008-04-028

Parent Company: Friends of the Family Pet Memorial Garden

Parent Company Address: 2343 E. Wildwood Circle North, Springfield, MO 65804

Installation Name: Friends of the Family Pet Memorial Garden

Installation Address: 1900 Farm Road 123, Springfield, MO 65802

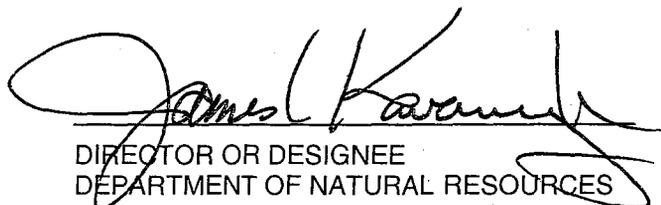
Location Information: Greene County, S8, T29, R22

Application for Authority to Construct was made for:  
The installation of a Therm-Tec model G-8-P 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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- Standard Conditions (on reverse) are applicable to this permit.
- Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

JUN 10 2008

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.** In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the departments' 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 to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and 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 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 Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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:

Project Number: 2008-04-028

Parent Company:

Friends of the Family Pet Memorial Garden

Parent Company Address: 2343 E. Wildwood Circle North, Springfield, MO 65804

Installation Name:

Friends of the Family Pet Memorial Garden

Installation Address:

1900 Farm Road 123, Springfield, MO 65802

Location Information:

Greene County, S8, T29, R22

Application for Authority to Construct was made for:

The installation of a Therm-Tec model G-8-P 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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Standard Conditions (on reverse) are applicable to this permit.

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EFFECTIVE DATE

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DIRECTOR OR DESIGNEE  
DEPARTMENT OF NATURAL RESOURCES

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Permit No.	
Project No.	2008-04-028

#### 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."*

Friends of the Family Pet Memorial Garden  
Greene County, S8, T29, R22

1. Process Requirements for the Incinerator (EP-05)
  - A. Friends of the Family Pet Memorial Garden will burn exclusively pathological animal waste that is not medical/ infectious waste. These terms are defined in the project description.
  - B. Charging of waste between burn cycles is prohibited in the batch-type incinerator.
  - 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 operators shall maintain the secondary chamber at a temperature of no less than 1600 degrees Fahrenheit.
  - E. The incinerator shall have a minimum combustion efficiency of 99.9% determined from the carbon dioxide (CO<sub>2</sub>) concentration divided by the sum of the carbon monoxide (CO) and CO<sub>2</sub> concentrations.
2. Record Keeping Requirements  
Friends of the Family Pet Memorial Garden 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. Friends of the Family Pet Memorial Garden 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 Department of Natural Resources' personnel upon request.
3. Opacity  
The incinerator (EP-05) shall have opacity of less than ten percent (10%) at all times.
4. Operator Requirements for the Incinerator (EP-05)

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Permit No.	
Project No.	2008-04-028

**SPECIAL CONDITIONS:**

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

- A. All incinerator operators shall attend a training program equivalent to that developed by the American Society of Mechanical Engineers (ASME), by 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 or her in an easy to read and follow manual.
5. **Restriction of Odors**  
If a continued situation of demonstrated nuisance odors exists in violation of 10 CSR 10-2.070, the Director may require through written notice that Friends of the Family Pet Memorial Garden submit a corrective action plan within ten days adequate to timely and significantly mitigate the odors and Friends of the Family Pet Memorial Garden shall implement any such plan immediately upon its approval by the Director. Failure to either submit or implement such a plan shall be in violation of this permit.

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

Project Number: 2008-04-028  
Installation ID Number: 077-0123  
Permit Number:

Friends of the Family Pet Memorial Garden  
1900 Farm Road 123  
Springfield, MO 65802

Complete: 04/08/2008

Parent Company:  
Friends of the Family Pet Memorial Garden  
2343 E. Wildwood Circle North  
Springfield, MO 65804

Greene County, S8, T29, R22

REVIEW SUMMARY

- Friends of the Family Pet Memorial Garden has applied for authority to construct a Therm-Tec model G-8-P incinerator.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment. All HAP emissions are below their respective screen modeling action levels.
- None of the New Source Performance Standards (NSPS) apply to the proposed equipment. Specifically, NSPS subpart Ec, "Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced After June 20, 1996" does not apply to the 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*. Potential emissions of all pollutants are below de minimis levels. 10 CSR 10-6.060 paragraph (1)(B) requires all incinerators to obtain construction permits.
- This installation is located in Greene 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.
- A Basic Operating Permit amendment is required for this installation within 30 days of equipment startup.
- Approval of this permit is recommended with special conditions.

### INSTALLATION DESCRIPTION

Friends of the Family Pet Memorial Garden is an existing source and holds a basic operating permit. They have received several construction permits for small animal incinerators.

The following construction permits have been issued to Friends of the Family Pet Memorial Garden from the Air Pollution Control Program.

Permit Number	Description
0884-006	Animal Incinerator
1189-006	Animal Incinerator
0898-026	Animal Incinerator
122004-003	Animal Incinerator

Friends of the Family Pet Memorial Garden has applied for authority to construct a new Therm-Tec Model G-8-P incinerator. The incinerator will be used to cremate dead animal remains. The incinerator can burn 750 pounds per batch and may be loaded twice per day.

The incinerator is permitted to burn pathological animal waste that is not considered medical/infectious waste. These terms were taken from the Code of Federal Regulations 40 CFR 60.51c. Pathological animal waste is waste material consisting of only animal remains, anatomical parts or tissue, the bags or containers used to collect and transport the waste material and animal bedding. Medical/infectious waste means any waste generated in the diagnosis, treatment or immunization of animal, in research pertaining thereto, or animal waste including contaminated animal carcasses, body parts and bedding of animals that were known to have been exposed to infectious agents during research, production of biologicals or testing of pharmaceuticals.

## EMISSIONS/CONTROLS EVALUATION

The emissions of particulate matter less than ten (10) microns in aerodynamic diameter (PM<sub>10</sub>) and carbon monoxide (CO) were taken from test results of a similar unit that was tested at the Liberty Animal Control facility on October 19, 1993. The emissions of sulfur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and volatile organic compounds (VOCs) were calculated using emission factors from the Factor Information Retrieval (FIRE) Data System version 6.25 for SCC 5-02-001-01. Emissions of HAPs were calculated using emission factors from FIRE for SCC 5-02-005-05. 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.

Table 2: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (2006 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	2.85	0.46	0.09	N/A
SO <sub>x</sub>	40.0	2.22	0.33	0.13	N/A
NO <sub>x</sub>	40.0	2.17	0.54	0.16	N/A
VOC	40.0	0.21	0.04	0.16	N/A
CO	100.0	1.48	0.45	0.57	N/A
Total HAPs	25.0	N/D	N/D	6.68	N/A

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

Existing Potential Emissions taken from permit 122004-003.

## 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. 10 CSR 10-6.060 paragraph (1)(B) requires all incinerators to obtain construction permits.

## APPLICABLE REQUIREMENTS

Friends of the Family Pet Memorial Garden 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 June 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.

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Michael Mittermeyer  
Environmental Engineer

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Date

## PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 04/04/2008, received 04/22/2008, designating Friends of the Family Pet Memorial Garden as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southwest Regional Office Site Survey, dated date.

Mr. Douglas Davis  
President  
Friends of the Family Pet Memorial Garden  
1900 Farm Road 123  
Springfield, MO 65802

RE: New Source Review Permit - Project Number: 2008-04-028

Dear Mr. Davis:

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 amended 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 Michael Mittermeyer, at the departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.

Sincerely,

**AIR POLLUTION CONTROL PROGRAM**

Kendall B. Hale  
New Source Review Unit Chief

KBH:mml

Enclosures

c: Southwest Regional Office  
PAMS File: 2008-04-028

Permit Number: