

STATE OF MISSOURI

PERMIT BOOK



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: 012009-006 Project Number: 2008-10-013

Parent Company: City of St. Joseph

Parent Company Address: 1100 Fredrick Avenue, St. Joseph, MO 64504

Installation Name: St. Joseph Animal Control and Rescue

Installation Address: 701 Lower Lake Road, St. Joseph, MO 64504

Location Information: Buchanan County

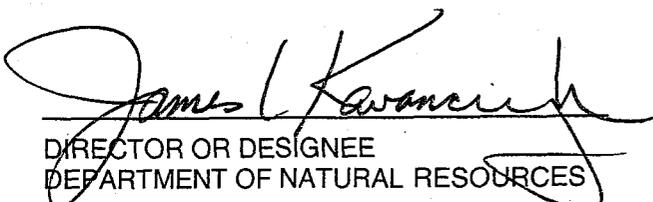
Application for Authority to Construct was made for:
The installation of a Therm-Tec G-12-P small animal incinerator rated to destroy 150 pounds of waste per hour. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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

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

JAN 21 2009

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 department's 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 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.

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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."

St. Joseph Animal Control and Rescue Buchanan County

1. Process Requirements for the Incinerator (EP-01)

- A. St. Joseph Animal Control and Rescue shall burn exclusively non-infectious animal remains not in containers and non-infectious animal remains in containers not containing chlorine.
- 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 primary chamber at a temperature of no less than 1400 degrees Fahrenheit and the secondary chamber at a temperature of no less than 1500 degrees Fahrenheit.
- E. The incinerator shall be maintained to meet the designed minimum combustion efficiency of 99.9% as determined from the carbon dioxide (CO₂) concentration divided by the sum of the carbon monoxide (CO) and (CO₂) concentrations.

2. Record Keeping Requirements

St. Joseph Animal Control and Rescue 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. St. Joseph Animal Control and Rescue 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-01) shall meet the minimum opacity requirement of less than

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SPECIAL CONDITIONS:

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

ten percent (10%) at all times in operation.

4. Operator Requirements for the Incinerator (EP-01)

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 St. Joseph Animal Control and Rescue submit a corrective action plan within ten days adequate to timely and significantly mitigate the odors and St. Joseph Animal Control and Rescue 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: 2008-10-013
Installation ID Number: 021-0087
Permit Number:

St. Joseph Animal Control and Rescue
701 Lower Lake Road
St. Joseph, MO 64504

Complete: 10/25/2008

Parent Company:
City of St. Joseph
1100 Fredrick Avenue
St. Joseph, MO 64504

Buchanan County

REVIEW SUMMARY

- St. Joseph Animal Control and Rescue has applied for authority to install a new small animal incenerator.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment but at negligible levels.
- None of the New Source Performance Standards apply to the proposed equipment.
- None of the National Emission Standards for Hazardous Air Pollutants or currently promulgated Maximum Achievable Control Technology regulations apply to the proposed 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 criteria pollutants are below de minimis levels. Section (1)(B) requires all incinerators to obtain construction permits.
- This installation is located in Buchanan 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 a similar unit and approved by the Air Pollution Control Program.

- A revision to 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

St. Joseph Animal Control and Rescue is a *de minimis* source and holds a basic operating permit. They are located in St. Joseph Missouri and currently operates two existing incinerators a Shenandoah P25 and a Therm-Tec G-8-P incinerator for incineration of small animals.

The following permits have been issued to St. Joseph Animal Control and Rescue from the Air Pollution Control Program.

Table 1: Permits issued to county plant number 021-0087

Permit Number	Permit Action
0490-001	Shenandoah P25 incinerator
1295-007	Therm-Tec G-8-P incinerator
Operating Permit	Basic Operating Permit

PROJECT DESCRIPTION

St. Joseph Animal Control and Rescue is installing a Therm-Tec G-12-P incinerator rated to destroy 150 pounds of waste per hour. This unit has been approved for installation at other sites in Missouri. This unit was recently approved for Lee's Summit Animal Shelter and was issued permit number 082007-011. Therefore, no initial testing will be required as the unit is identical to the applicant submitted stack test results from a similar unit. That unit was tested on May 18th, 2000 in Barnhart Missouri. The applicant states that the incinerators authorized under 0490-001 and 1295-007 will be made non operable and the previous units will be dismantled once this unit is operational.

EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) Factor Information Retrieval (FIRE) Data System SCC 5-02-001-01 and stack test results from a similar unit. 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 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions	Existing Actual Emissions (year EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	N/A	N/A	0.81	N/A
SO _x	40.0	N/A	N/A	0.82	N/A
NO _x	40.0	N/A	N/A	0.99	N/A
VOC	40.0	N/A	N/A	0.99	N/A
CO	100.0	N/A	N/A	0.31	N/A
HAPs	10.0/25.0	N/A	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

St. Joseph Animal Control and Rescue 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

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260
- *Maximum Allowable Emissions of Particulate Matter From Fuel Burning Equipment Used for Indirect Heating*, 10 CSR 10-3.060

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.

Tim Hines
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 09/25/2008, received 10/03/2008, designating City of St. Joseph as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Kansas City Regional Office Site Survey.

Mr. Rick Smith
Supervisor
St. Joseph Animal Control and Rescue
701 Lower Lake Road
St. Joseph, MO 64504

RE: New Source Review Permit - Project Number: 2008-10-013

Dear Mr. Smith:

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 contact Tim Hines at the department's Air Pollution Control Program at P.O. Box 176, Jefferson City, MO 65102 or telephone (573) 751-4817. Thank you for your time and consideration.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Kendall B. Hale
New Source Review Unit Chief

KBH:thl

Enclosures

c: Kansas City Regional Office
PAMS File: 2008-10-013

Permit Number: