



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

TO: Interested Parties / Applicant

DATE: November 27, 2006

RE: Pets Forever Cemetery and Crematory, Inc. / 089-23820-00519

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FNPER-AM.dot 03/23/06



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204-2251
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November 27, 2006

Robert Williams, Sr.
Pets Forever Cemetery and Crematory, Inc.
4401 West Ridge Road
Gary, Indiana 46408

Re: Exempt Construction and Operation Status,
089-23820-00519

Dear Mr. Williams:

The application from Pets Forever Cemetery and Crematory, Inc., received on October 27, 2006, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following animal remains incineration source, to be located at 4401 West Ridge Road, Gary, Indiana 46408, is classified as exempt from air pollution permit requirements:

- One (1) natural gas-fired crematory incinerator for animal remains, constructed in 2006, exhausting through Stack S1, maximum capacity: 75 pounds of animal remains per hour, heat input rated at 1.9 million British thermal units per hour.
- (1) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
 - (2) Pursuant to 326 IAC 4-2-2 (Incinerators), the natural gas-fired crematory incinerator rated at 1.9 million British thermal units per hour with a capacity of 75 pounds of animal remains per hour, shall comply with the following requirements:

- (a) Consist of primary and secondary chambers or the equivalent.
 - (b) Be equipped with a primary burner unless burning only wood products.
 - (c) Comply with 326 IAC 5-1 and 326 IAC 2.
 - (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications.
 - (e) Not emit particulate matter in excess of five tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
 - (f) If any of the requirements of subdivisions (a) through (e) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
- (4) Pursuant to 326 IAC 9-1-2(a)(3) (Carbon monoxide emission limits), the Permittee shall not operate a refuse incinerator or refuse burning equipment unless the waste stream is burned in one (1) of the following:
- (a) Direct-flame afterburner, or
 - (b) Secondary chamber.
- (5) In order to demonstrate that the natural gas-fired crematory incinerator is not subject to the requirements of the New Source Performance Standard, 40 CFR 60.2000, Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 and New Source Performance Standard, 40 CFR 60.2880, Subpart EEEE, Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006:
- (a) Pursuant to Subpart CCCC, 40 CFR 60.2020(a) and Subpart EEEE, 40 CFR 60.2887(l), the Permittee shall notify the administrator that the unit burns 90% or more by weight of pathological waste, excluding the weight of the auxiliary fuel and combustion air.
 - (b) Pursuant to Subpart CCCC, 40 CFR 60.2020(a), the Permittee shall maintain daily records on a calendar quarter basis of the weight of pathological waste burned and the weight of all other fuels and waste burned in the unit.
 - (c) Pathological waste is defined in Subpart CCCC, 40 CFR 60.2265 as waste material consisting of only human or animal remains, anatomical parts and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).
- (6) Records of all required weights of the pathological waste required shall be retained for a period of at least five (5) years from the date of the measurement. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available

upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

This exemption is the first air approval issued to this source.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by

Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

MLK/MES

cc: File – Lake County
Lake County Health Department
Air Compliance – Ramesh Tejuja
Permit Tracking
Compliance Data Section
Northwest Regional Office

**Indiana Department of Environmental Management
Office of Air Quality**

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Pets Forever Cemetery and Crematory, Inc.
Source Location:	4401 West Ridge Road, Gary, Indiana 46408
County:	Lake
SIC Code:	0742
Operation Permit No.:	Exemption 089-23820-00519
Permit Reviewer:	Mark L. Kramer

The Office of Air Quality (OAQ) has reviewed an application from Pets Forever Cemetery and Crematory, Inc. relating to the construction and operation of an animal remains cremation source. The cemetery and crematory is proposed to be constructed on the property of the Ridgelawn Cemetery which does not operate an incinerator.

Permitted Emission Units and Pollution Control Equipment

There are no permitted emission units operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

There are no unpermitted emission units operating at this source during this review process.

New Emission Units and Pollution Control Equipment

The application includes information relating to the prior approval for the construction and operation of the following new equipment:

One (1) natural gas-fired crematory incinerator for animal remains, approved for exemption status in 2006, exhausting through Stack S1, maximum capacity: 75 pounds of animal remains per hour, heat input rated at 1.9 million British thermal units per hour.

Existing Approvals

There are no existing approvals for this source.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
S1	Incinerator	18	1.7	2,000	1,200

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

A complete application for the purposes of this review was received on October 27, 2006.

Emission Calculations

See pages 1 and 2 of 2 of Appendix A of this document for detailed emission calculations.

Potential to Emit of the Source Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential to Emit (tons/yr)
PM	1.17
PM ₁₀	1.21
SO ₂	0.416
VOC	0.539
CO	2.34
NO _x	1.33

HAPs	Potential to Emit (tons/yr)
Benzene	0.000017
Dichlorobenzene	0.000010
Formaldehyde	0.000624
Hexane	0.014980
Toluene	0.000028
Lead Compounds	0.0007
Cadmium Compounds	0.000009
Chromium Compounds	0.000012
Manganese Compounds	0.000003
Nickel Compounds	0.000017
Total	0.017

- (a) The potential to emit of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) The potential to emit of any single HAP is less than ten (10) tons per year and/or the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM _{2.5}	basic nonattainment
PM ₁₀	maintenance
SO ₂	attainment
NO ₂	attainment
8-Hour Ozone	moderate nonattainment
CO	maintenance
Lead	attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone.
- (b) VOC and NO_x emissions are considered when evaluating the rule applicability relating to the 8-hour ozone standard. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements of 326 IAC 2-3, Emission Offset.
- (c) U.S.EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Lake County as nonattainment for PM_{2.5}. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a lawsuit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of nonattainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions pursuant to the Nonattainment New Source Review requirements.
- (d) Lake County has been classified as attainment or unclassifiable in Indiana for PM₁₀, SO₂, CO and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section of this document.

Source Status

New Source PSD Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	1.17
PM ₁₀	1.21
SO ₂	0.416
VOC	0.539
CO	2.34
NO _x	1.33
Single HAP (hexane)	0.015
Combination HAPs	0.017

- (a) This new source is **not** a major stationary source under PSD because no attainment pollutant is emitted at a rate of two hundred-fifty (250) tons per year or greater and it is not in one of the twenty-eight (28) listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This new source is **not** a major stationary source under Emission Offset because VOC and PM₁₀ (acting as a surrogate for PM_{2.5}) is not emitted at a rate of one-hundred (100) tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than one-hundred (100) tons per year,
- (b) a single hazardous air pollutant (HAP) is less than ten (10) tons per year, and
- (c) the combination of HAPs is less than twenty-five (25) tons per year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) The requirements of New Source Performance Standards for Incinerators, 40 CFR 60.50, Subpart E, have not been included in this exemption because this incinerator has a charge capacity of 0.90 tons per day which is less than the 50 ton per day applicability threshold of Subpart E.
- (b) The requirements of New Source Performance Standards for Municipal Waste Combustors, 40 CFR 60.50a, Subpart Ea, have not been included in this exemption because this incinerator is not a municipal waste combustor and it was not constructed between December 20, 1989 and September 20, 1994.
- (c) The requirements of New Source Performance Standards for Large Municipal Waste Combustors, 40 CFR 60.50b, Subpart Eb, have not been included in this exemption because this incinerator is not a large municipal waste combustor.

- (d) The requirements of New Source Performance Standards for Hospital/Medical/Infectious Waste Incinerators, 40 CFR 60.50c, Subpart Ec, have not been included in this exemption because this incinerator is not defined as a hospital/medical/infectious waste incinerator. Medical/infectious waste means any waste generated in the diagnosis, treatment, or immunization of human beings or animals, in research pertaining thereto, or in the production or testing of biologicals. The animal waste including contaminated animal carcasses, body parts, and bedding of animals to be incinerated will not be from research (including research in veterinary hospitals), production of biologicals or testing of pharmaceuticals, therefore the animal carcasses incinerated at Pets Forever are not defined as medical/infectious waste.
- (e) The requirements of the NSPS, 40 CFR 60.1000, Subpart AAAA, Standards of Performance for Small Municipal Waste Combustion Units for Which Construction is Commenced After August 30, 1999 or for Which Modification or Reconstruction is Commenced After June 6, 2001 are not included in the permit for this source because the crematory incinerator does not combust municipal waste.
- (f) The requirements of the NSPS, 40 CFR 60.2000, Subpart CCCC, Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001 are not included in the permit for this source pursuant to 40 CFR 60.2010(b) even though the crematory incinerator is a commercial and industrial solid waste incineration (CISWI) unit as defined in 40 CFR 60.2265 because pursuant to 40 CFR 60.2020, this the crematory burns 90% or more by weight of pathological waste on calendar quarter basis, excluding the weight of auxiliary fuel and combustion air. Pathological waste is defined in 40 CFR 60.2265 as waste material consisting of only human or animal remains, anatomical parts and/or tissue, the bags/containers used to collect and transport the waste material, and animal bedding (if applicable).

In order to be exempt from the requirements of this subpart, the Permittee shall notify the administrator that the unit burns 90% or more of pathological waste and shall keep records on a calendar quarter basis of the weight of pathological waste burned and the weight of all other fuels and waste burned in the unit.

CISWI unit means any combustion unit that combust commercial or industrial waste. Commercial or industrial waste is defined in 40 CFR 60.2265 as solid waste that is combust at any commercial or industrial facility using control flame combustion in an enclosed distinct operating unit. Solid waste is defined in 40 CFR 60.2265 as any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant or any air pollution control facility and other discarded material, including solid, liquid, semi-solid or contained gaseous material resulting from industrial, commercial, mining, agricultural operations and from community activities, but does not include solid or dissolved materials in domestic sewage or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to permits under Section 402 of the Federal Water Pollution Control Act.

- (g) The requirements of the NSPS, 40 CFR 60.2880, Subpart EEEE, Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006 are not included in the permit for this source because the crematory incinerator is not a municipal waste combustion unit and is exempt from the requirements of this rule pursuant to 40 CFR 60.2887(l) if the Permittee notifies the administrator that the crematory burns 90% or more by weight of pathological waste on calendar quarter basis, excluding the weight of auxiliary fuel and combustion air.

Pathological waste is defined as 40 CFR 60.2997 as waste material consisting of only human or animal remains.

- (h) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants for Hazardous Waste Combustors, 40 CFR 63.1200, Subpart EEE since the crematory incinerator does not combust any hazardous waste as defined in 40 CFR 261.
- (j) There are no other National Emission Standards for Hazardous Air Pollutants included in the permit for this source.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source is located in Lake County, but does not have the potential to emit greater than twenty-five (25) tons per year of NO_x, does not emit five (5) tons per year or more of lead and does not require a Part 70 Operating Permit. Therefore, the requirements of 326 IAC 2-6 do not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity limitations), except as provided in 326 IAC 5-1-3 (Temporary alternative opacity limitations), opacity shall meet the following, unless otherwise stated in the permit:

- (a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability – Individual Facilities

326 IAC 2-3 (Emission Offset)

The unrestricted potential VOC emissions, the unrestricted potential NO_x emissions and PM_{2.5} (acting as a surrogate for PM_{2.5}) are each less than one-hundred (100) tons per year. Therefore, this source is a minor source pursuant to 326 IAC 2-3, Emission Offset.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

The unrestricted potential emissions of each attainment criteria pollutant are less than two-hundred fifty (250) tons per year. Therefore, this source, which is not one of the twenty-eight (28) listed source categories, is a minor source pursuant to 326 IAC 2-2, PSD.

326 IAC 2-4.1-1 (New source toxics control)

The operation of the natural gas-fired crematory incinerator will emit less than ten (10) tons per year of a single HAP and twenty-five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 4-2-2 (Incinerators)

Pursuant to 326 IAC 4-2-2 (Incinerators), the natural gas-fired crematory incinerator rated at 1.9 million British thermal units per hour with a capacity of 75 pounds of animal remains per hour, shall comply with the following requirements:

- (a) Consist of primary and secondary chambers or the equivalent.
- (b) Be equipped with a primary burner unless burning only wood products.
- (c) Comply with 326 IAC 5-1 and 326 IAC 2.
- (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications.
- (e) Not emit particulate matter in excess of five tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
- (f) If any of the requirements of subdivisions (a) through (e) are not met, then the owner or operator shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.

The manufacturer's guaranteed particulate emission rate of 0.071 pounds per 1,000 pounds of dry exhaust air corrected to 50% excess air can comply with the requirements of this rule.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b)(2), incineration is exempt from the requirements of this rule.

326 IAC 6.8-1-2 (Particulate Matter Limitations)

Pursuant to 326 IAC 6.8-1-1 (Applicability), this source to be located in Lake County is not specifically listed in 326 IAC 6.8-2 through 326 IAC 6.8-11; and does not have the potential to emit one hundred (100) tons or more; or actual emissions of ten (10) tons or more of particulate matter per year. Therefore, the source is not subject to the requirements of this rule.

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

The natural gas-fired crematory incinerator is not subject to the requirements of this rule because the incinerator does not have the potential to emit twenty-five (25) tons of sulfur dioxide per year or have actual emissions of ten (10) pounds of sulfur dioxide per hour.

326 IAC 8-1-6 (New facilities; general reduction requirements)

The natural gas-fired crematory incinerator is not subject to the requirements of this rule because the incinerator does not have the potential to emit twenty-five (25) tons of volatile organic compounds (VOC) per year and none of the other Article 8 rules apply to this incinerator.

326 IAC 9-1-2 (Carbon monoxide emission limits)

The natural gas-fired crematory incinerator will be in compliance with this rule because the incinerator will burn the waste gas stream in a secondary chamber, which is equivalent to a direct-flame afterburner control.

326 IAC 10-1-1 (Nitrogen Oxides Rules)

The natural gas-fired crematory incinerator will be located in Lake County, and not in either Clark or Floyd Counties. Therefore, the incinerator is not subject to the requirements of this rule.

Compliance Requirements

There are no compliance determination or compliance monitoring requirements included in this Exemption.

Conclusion

The construction and operation of this animal remains cremation source shall be subject to the conditions of the Exemption 089-23820-00519.

**Appendix A: Emission Calculations
Incinerator**

**Company Name: Pets Forever Cemetery and Crematory, Inc.
Address City IN Zip: 4401 West Ridge Road, Gary, Indiana 46408
Exemption Permit Number: 089-23820-00519
Plt ID: 089-00519
Reviewer: Mark L. Kramer
Application Date: October 27, 2006**

THROUGHPUT lbs/hr 75

THROUGHPUT ton/yr 328.5

	POLLUTANT					
	PM	SO2	CO	VOC	NOX	PB
Emission Factor in lb/ton PB in percent see note below	7.0	2.5	10.0	3.0	3.0	0.000002
Potential Emissions in ton/yr	1.15	0.411	1.64	0.493	0.493	0.0007

Methodology

Emission factors are from AP 42 (10/96) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers
Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)
Pb = 0.0002% of the animal body weight

**Natural Gas Combustion Only
MM BTU/HR <100**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.90	17

	Pollutant					
	PM*	PM10*	SO2	NOx 100	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.600	**see below	5.50	84.0
Potential Emission in tons/yr	0.016	0.063	0.005	0.832	0.046	0.699

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

**Appendix A: Emissions Calculations
 Natural Gas Combustion Only
 MM BTU/HR <100
 HAPs Emissions**

**Company Name: Pets Forever Cemetery and Crematory, Inc.
 Address City IN Zip: 4401 West Ridge Road, Gary, Indiana 46408
 Permit Number: 089-23820-00519
 Plt ID: 089-00519
 Reviewer: Mark L. Kramer
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	HAPs - Organics				
Emission Factor in lb/MMcf	Benzene 0.00210	Dichlorobenzene 0.00120	Formaldehyde 0.07500	Hexane 1.80000	Toluene 0.00340
Potential Emission in tons/yr	0.000017	0.000010	0.000624	0.014980	0.000028

	HAPs - Metals					
Emission Factor in lb/MMcf	Lead 0.0005	Cadmium 0.0011	Chromium 0.0014	Manganese 0.0004	Nickel 0.0021	Total
Potential Emission in tons/yr	0.000004	0.000009	0.000012	0.000003	0.000017	0.016

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
 Additional HAPs emission factors are available in AP-42, Chapter 1.4.