



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: September 17, 2012

RE: Elkhart Cremation Services/039-32156-00529

FROM: Matthew Stuckey, Branch 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, Suite N 501E, 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.dot12/3/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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William Zimmerman  
Elkhart Cremation Services  
2100 W. Franklin Street  
Elkhart, IN 46516

September 17, 2012

Re: Exempt Construction and Operation Status,  
E039-32156-00529

Dear William Zimmerman:

The application from Elkhart Cremation Services, received on July 27, 2012, 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 stationary crematory for human remains located at 2100 Franklin Street, Elkhart, IN 46516 is classified as exempt from air pollution permit requirements:

The source consists of the following existing emission unit:

- (a) One (1) crematory incinerator for human remains, identified as 01, constructed in 1999, with a maximum capacity of 100 pounds per hour, consisting of a primary chamber and a secondary chamber that fire natural gas at a total maximum heat input rate of 1.7 million British thermal units per hour (MMBTU/hr), exhausting to the atmosphere.

The following is a list of the new emission units and pollution control devices:

- (b) One (1) crematory incinerator for human remains, identified as 02, constructed in 2012, with a maximum capacity of 200 pounds per hour, consisting of a primary chamber and a secondary chamber that fire natural gas at a total maximum heat input rate of 2.75 million British thermal units per hour (MMBTU/hr), exhausting to the atmosphere.
- (c) Paved roads and parking lots.

The following conditions shall be applicable:

1. Pursuant to 326 IAC 4-2-2 (Incinerators), the Permittee shall comply with the following:
  - (a) All incinerators shall comply with the following requirements:
    - (1) Consist of primary and secondary chambers or the equivalent.
    - (2) Be equipped with a primary burner unless burning only wood products.
    - (3) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules).
    - (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection (c).

- (5) Not emit particulate matter in excess of one (1) of the following:
    - (A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
    - (B) 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 for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
  - (6) If any of the requirements of subdivisions (1) through (5) 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.
- (b) An incinerator is exempt from subsection (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.
  - (c) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:
    - (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
      - (A) Procedures for receiving, handling, and charging waste.
      - (B) Procedures for incinerator startup and shutdown.
      - (C) Procedures for responding to a malfunction.
      - (D) Procedures for maintaining proper combustion air supply levels.
      - (E) Procedures for operating the incinerator and associated air pollution control systems.
      - (F) Procedures for handling ash.
      - (G) A list of wastes that can be burned in the incinerator.
    - (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
    - (3) The operation and maintenance plan must be readily accessible to incinerator operators.
    - (4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
  - (d) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

2. 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 forty percent (40%) in any one (1) six (6) minute averaging period.
  - (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.
3. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions, Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate IAC 6-4.
4. Pursuant to 40 CFR 60.2555(a)(1) and 60.2555(a)(2), in order to demonstrate that each of the crematory incinerators is not subject to the requirements of the New Source Performance Standard (NSPS) for Commercial and Industrial Solid Waste Incinerations Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC (326 IAC 12), the Permittee shall comply with the following:
  - (a) The Permittee shall notify the IDEM, OAQ Administrator that each crematory incinerator burns 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste. The Permittee shall submit the notification to:

Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
  - (b) The Permittee shall maintain records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.
  - (c) Pursuant to 40 CFR 60.2875, pathological waste is defined 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).
  - (d) All records 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 supersedes E039-11355-00529, issued on October 12, 1999.

A copy of the Exemption is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.idem.in.gov](http://www.idem.in.gov)

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. If you have any questions on this matter, please contact Dominic Williams, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-6555 or at 1-800-451-6027 (ext 4-6555).

Sincerely,



Nathan C. Bell, Section Chief  
Permits Branch  
Office of Air Quality

NB/DW

cc: File - Elkhart County  
Elkhart County Health Department  
Compliance and Enforcement Branch  
Billing, Licensing and Training Section

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for an Exemption

### Source Description and Location

**Source Name:** Elkhart Cremation Services  
**Source Location:** 2100 W Franklin Street, Elkhart, IN 46516  
**County:** Elkhart  
**SIC Code:** 7261 (Funeral Service and Crematories)  
**Registration (or Exemption) No.:** E039-32156-00529  
**Permit Reviewer:** Dominic Williams

On July 27, 2012, the Office of Air Quality (OAQ) received an application from Elkhart Cremation Services related to the construction and operation of new emission units and the continued operation of an existing stationary crematory for human remains.

### Existing Approvals

The source has been operating under Exemption No. E039-11355-00529, issued on October 12, 1999.

### County Attainment Status

The source is located in Elkhart County.

Pollutant	Designation
SO <sub>2</sub>	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O <sub>3</sub>	Attainment effective July 19, 2007, for the 8-hour ozone standard. <sup>1</sup>
PM <sub>10</sub>	Unclassifiable effective November 15, 1990.
NO <sub>2</sub>	Cannot be classified or better than national standards.
Pb	Not designated.
<sup>1</sup> Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM <sub>2.5</sub> .	

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Elkhart County has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions. These rules became effective on July 15, 2008. On May 4, 2011 the air pollution control board issued an emergency rule establishing the direct PM<sub>2.5</sub> significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM<sub>2.5</sub> and SO<sub>2</sub> 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.

- (c) Other Criteria Pollutants  
Elkhart County has been classified as attainment or unclassifiable in Indiana for for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

#### **Fugitive Emissions**

The fugitive emissions of criteria pollutants, hazardous air pollutants, and greenhouse gases are counted toward the determination of 326 IAC 2-1.1-3 (Exemptions) applicability.

#### **Background and Description of Emission Units and Pollution Control Equipment**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Elkhart Cremation Services on July 27, 2012, relating to the construction of a new emission unit at an existing stationary crematory for human remains.

The source consists of the following existing emission unit:

- (a) One (1) crematory incinerator for human remains, identified as 01, constructed in 1999, with a maximum capacity of 100 pounds per hour, consisting of a primary chamber and a secondary chamber that fire natural gas at a total maximum heat input rate of 1.7 million British thermal units per hour (MMBTU/hr), exhausting to the atmosphere.

The following is a list of the new emission units and pollution control devices:

- (b) One (1) crematory incinerator for human remains, identified as 02, constructed in 2012, with a maximum capacity of 200 pounds per hour, consisting of a primary chamber and a secondary chamber that fire natural gas at a total maximum heat input rate of 2.75 million British thermal units per hour (MMBTu/hr), exhausting to the atmosphere.
- (c) Paved roads and parking lots.

#### **Enforcement Issues**

There are no pending enforcement actions related to this source.

#### **Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

#### **Permit Level Determination – Exemption**

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)									
	PM	PM10*	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	GHGs as CO <sub>2</sub> e**	Total HAPs	Worst Single HAP
Incineration	4.60	4.60	4.60	1.64	1.97	1.97	6.57	1335.60	4.76	4.58 HCl
Natural Gas Combustion	0.04	0.15	0.15	0.011	1.91	0.11	1.61	2307.01	0.036	0.034 Hexane
Paved Roads	0.19	0.04	0.01	--	--	--	--	--	--	--
<b>Total PTE of Entire Source</b>	<b>4.83</b>	<b>4.78</b>	<b>4.75</b>	<b>1.65</b>	<b>3.88</b>	<b>2.08</b>	<b>8.18</b>	<b>3642.61</b>	<b>4.79</b>	<b>4.58 HCl</b>
Exemptions Levels**	5	5	5	10	10	10	25	100,000	25	10
Registration Levels**	25	25	25	25	25	25	100	100,000	25	10
-- = negligible *Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant". **The 100,000 CO <sub>2</sub> e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.										

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-7.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO<sub>2</sub> equivalent emissions (CO<sub>2</sub>e) per year. Therefore, the source is not subject to the provisions of 326 IAC 2-7.

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standards for Hospital/Medical/ Infectious Waste Incinerators, 40 CFR 60.50, Subpart Ec (326 IAC 12), are not included in this exemption, because the crematory incinerators are not Hospital/Medical/ Infectious Waste Incinerators as defined by 40 CFR 60.51c. Pursuant to the definitions under 40 CFR 60.51c, "hospital waste" and "medical/infectious waste" do not include remains that are intended for cremation.
- (b) The requirements of the following New Source Performance Standards (NSPS) are not included in this exemption, because the crematory incinerators are not considered a Municipal Waste Combustors and do not burn municipal type waste:
  - (1) 40 CFR 60, Subpart E (60.50 through 60.54), Standards of Performance for Standards of Performance for Incinerators (326 IAC 12);

- (2) 40 CFR 60, Subpart Ea (60.50a through 60.59a), Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after December 20, 1989 and on or before September 20, 1994 (326 IAC 12);
  - (3) 40 CFR 60, Subpart Eb (60.50b through 60.59b), Standards of Performance for Large Municipal Waste Combustors for Which Construction is Commenced after September 20, 1994, or for Which Modification or Reconstruction is commenced after June 19, 1996 (326 IAC 12);
  - (4) 40 CFR 60, Subpart AAAA (60.1000 through 60.1465), 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 (326 IAC 12).
- (c) The requirements of the New Source Performance Standard (NSPS) for Commercial and Industrial Solid Waste Incinerations Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC (60.2000 through 60.2265) (326 IAC 12), are not included in this exemption, because the crematory incinerators are not considered Commercial and Industrial Solid Waste Incineration (CISWI) Units as defined 40 CFR 60.2265. Pursuant to the definitions under 40 CFR 60.2265, a CISWI unit does not include any of the fifteen types of units described in 40 CFR 60.2555. Pursuant to 40 CFR 60.2555(a), incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in 40 CFR 60.2875 are not subject to this subpart if you meet the two requirements specified in paragraphs (a)(1) and (2) of this section.
- (1) Notify the Administrator that the unit meets these criteria.
  - (2) Keep records on a calendar quarter basis of the weight of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste burned, and the weight of all other fuels and wastes burned in the unit.

Pursuant to 40 CFR 60.2555(a)(1) and 40 CFR 60.2555(a)(2), in order to demonstrate that each of the crematory incinerators is not subject to the requirements of the New Source Performance Standard (NSPS) for Commercial and Industrial Solid Waste Incinerations Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC (326 IAC 12), the Permittee shall comply with the following:

- (1) The Permittee shall notify the IDEM, OAQ that each crematory incinerator burns 90% or more by weight of pathological waste, excluding the weight of the auxiliary fuel and combustion air. The Permittee shall submit the notification to:  
  
Indiana Department of Environmental Management  
Compliance and Enforcement Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (2) The Permittee shall maintain records on a calendar quarter basis of the weight of pathological waste burned (excluding the weight of auxiliary fuel and combustion air) and the weight of all other fuels and wastes burned each crematory incinerator.

- (3) Pursuant to 40 CFR 60.2875, pathological waste means 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).
- (4) All records 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.
- (d) The requirements of the New Source Performance Standards 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, 40 CFR 60, Subpart EEEE (60.2280 through 60, 2891), are not included in this exemption, because the crematory incinerators are not considered Other Solid Waste Incineration (OSWI) unit as defined by 40 CFR 60.2977. The crematory incinerator does not burn municipal solid waste or institutional waste as defined in 40 CFR 60.2977.
- (e) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the exemption for this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (f) The requirements of the National Emission Standards for Hazardous Waste Combustors, 40 CFR 63, Subpart EEE (63.1200 through 63.1214) (326 IAC 20-28), are not included in this exemption, because the crematory incinerators are not considered hazardous waste incinerators and the source is not a major source of HAPs.
- (g) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD, are not included in this exemption, because this source is not a major source of HAPs as defined in 40 CFR 63.2 and does not contain any boilers or process heaters.
- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJJ, are not included in included in this exemption, because this source does not contain any boilers.
- (i) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 20 and 40 CFR Part 61, 63) included in the exemption for this source.

Compliance Assurance Monitoring (CAM)

- (j) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

<b>State Rule Applicability Determination - Entire Source</b>
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The following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)  
Exemption applicability is discussed under the Permit Level Determination – Exemption section above.

- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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 this permit:
  - (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
  - (2) 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.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IAC 6.8-10 (Lake County: Fugitive Particulate Matter)  
The source is not subject to the requirements of 326 IAC 6.8-10, because it is not located in Lake County and it does not have potential fugitive particulate emissions greater than 5 tons per year.
- (h) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.
- (i) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (j) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

**State Rule Applicability Determination - Individual Facilities**

Crematory Incinerators

326 IAC 4-2 (Incinerators)

Pursuant to 326 IAC 4-2-2 (Incinerators), the Permittee shall comply with the following:

- (a) All incinerators shall comply with the following requirements:
  - (1) Consist of primary and secondary chambers or the equivalent.
  - (2) Be equipped with a primary burner unless burning only wood products.
  - (3) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules).
  - (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in subsection (c).
  - (5) Not emit particulate matter in excess of one (1) of the following:
    - (A) Three-tenths (0.3) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air for incinerators with a maximum solid waste capacity of greater than or equal to two hundred (200) pounds per hour.
    - (B) 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 for incinerators with solid waste capacity less than two hundred (200) pounds per hour.
  - (6) If any of the requirements of subdivisions (1) through (5) 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.
- (b) An incinerator is exempt from subsection (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.
- (c) An owner or operator developing an operation and maintenance plan pursuant to subsection (a)(4) must comply with the following:
  - (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in subsection (a)(5) and include the following:
    - (A) Procedures for receiving, handling, and charging waste.
    - (B) Procedures for incinerator startup and shutdown.
    - (C) Procedures for responding to a malfunction.
    - (D) Procedures for maintaining proper combustion air supply levels.
    - (E) Procedures for operating the incinerator and associated air pollution control systems.

- (F) Procedures for handling ash.
  - (G) A list of wastes that can be burned in the incinerator.
  - (2) Each incinerator operator shall review the plan before initial implementation of the operation and maintenance plan and annually thereafter.
  - (3) The operation and maintenance plan must be readily accessible to incinerator operators.
  - (4) The owner or operator of the incinerator shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (d) The owner or operator of the incinerator must make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The crematory incinerators are not subject to the requirements of 326 IAC 6-2, because they each are not an indirect heating unit.

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

Pursuant to 326 IAC 6-3-1(a)(2), the crematory incinerators are exempt from the requirements of 326 IAC 6-3.

326 IAC 7-1 (Sulfur dioxide emission limitations: Applicability)

The crematory incinerators are not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions of sulfur dioxide are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

The crematory incinerators are not subject to the requirements of 326 IAC 8-1-6, since they have unlimited VOC potential emissions of less than twenty-five (25) tons per year.

326 IAC 8-7 (VOC Rules: Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)

Pursuant to 326 IAC 8-7-2(a), this source is not subject to the requirements of 326 IAC 8-7, since it is not located in Lake, Porter, Clark, or Floyd County.

326 IAC 8-19 (VOC Rules: Control of Volatile Organic Compound Emissions from Process Vents in Batch Operations)

Pursuant to 326 IAC 8-19-1, this source is not subject to the requirements of 326 IAC 8-18, since it is not located in Lake or Porter County and does not have the potential to emit VOC greater than or equal to one hundred (100) tons per year from a batch process train associated with any of the SIC Codes listed under 326 IAC 8-19-1(a).

There are no other 326 IAC 8 Rules that are applicable to the crematory incinerator.

326 IAC 9-1 (Carbon Monoxide Emission Limits)

This stationary source, constructed after the applicability date of March 21, 1972, is not subject to the requirements of 326 IAC 9-1-2(a)(3), since the crematory incinerators burn pathological waste and do not burn refuse consisting of more than 50 percent municipal type waste (household, commercial/retail, and/or institutional waste).

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

The crematory incinerators are not subject to the requirements of 326 IAC 10-1-1 (Nitrogen Oxides Control), because the source is not located in Clark or Floyd counties.

326 IAC 11-6 (Hospital/Medical/Infectious Waste Incinerators)

Pursuant to 326 IAC 11-6, the crematory incinerators are not subject to the requirements of 326 IAC 11-6, because they each are not a hospital/medical/ infectious waste incinerator, and they were not constructed on or before June 20, 1996.

326 IAC 11-7 (Emission Limitations for Municipal Waste Combustors)

Pursuant to 326 IAC 11-7, the crematory incinerators are not subject to the requirements of 326 IAC 11-7, since they each are considered a pathological waste combustor and not a municipal waste combustor, and they were not constructed on or before September 20, 1994.

326 IAC 11-8 (Commercial and Industrial Solid Waste Incineration Units)

Pursuant to 326 IAC 11-8, the crematory incinerators are not subject to the requirements of 326 IAC 11-8, because they each are not considered commercial and industrial solid waste incineration (CISWI) unit as defined 40 CFR 60.2875.

<b>Conclusion and Recommendation</b>
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Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on July 27, 2012.

The operation of this source shall be subject to the conditions of the attached proposed Exemption No. E039-32156-00529. The staff recommends to the Commissioner that this Exemption be approved.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed permit can be directed to Dominic Williams at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-6555 or toll free at 1-800-451-6027 extension 4-6555.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: [www.in.gov/idem](http://www.in.gov/idem)

**TSD Appendix A: Emission Calculations  
Emission Summary**

**Company Name:** Elkhart Cremation Service  
**Source Address:** 2100 Franklin Street, Elkhart, IN 46516  
**Exemption No.:** E039-32156-00529  
**Reviewer:** Dominic Williams

Category	Uncontrolled Potential Emissions (tons/year)				
	Pollutant	Incineration	Natural Gas Combustion	Paved Roads (fugitive)	TOTAL
Criteria Pollutants	PM	4.60	0.04	0.19	4.83
	PM10	4.60	0.15	0.04	4.78
	PM2.5	4.60	0.15	0.01	4.75
	SO2	1.64	0.011	0.0	1.65
	NOx	1.97	1.91	0.0	3.88
	VOC	1.97	0.11	0.0	2.08
	CO	6.57	1.61	0.0	8.18
	GHGs as CO2e	1335.60	2307.01	0.0	3642.61
Hazardous Air Pollutants	Arsenic	3.90E-03	3.82E-06	0.0	3.91E-03
	Benzene	0.0	4.01E-05	0.0	4.01E-05
	Cadmium (Cd)	7.16E-03	2.10E-05	0.0	7.18E-03
	Chromium (Cr)	0.009	2.68E-05	0.0	0.009
	Dichlorobenzene	0.0	2.29E-05	0.0	2.29E-05
	CDD/CDF*	4.76E-05	0.0	0.0	4.76E-05
	Formaldehyde	0.0	1.43E-03	0.0	1.43E-03
	Hydrogen Chloride (HCl)	4.58	0.0	0.0	4.58
	Lead (Pb)	0.14	9.55E-06	0.0	0.14
	Manganese (Mn)	0.0	7.26E-06	0.0	7.26E-06
	Mercury (Hg)	3.68E-03	0.0	0.0	0.004
	n-Hexane	0.0	0.034	0.0	0.034
	Nickel (Ni)	0.012	4.01E-05	0.0	0.012
	Toluene	0.0	6.50E-05	0.0	6.50E-05
	<b>Totals</b>	<b>4.76</b>	<b>0.036</b>	<b>0.0</b>	<b>4.79</b>
	<b>Worse Case HAP</b>				<b>4.58</b>
					<b>Hydrogen Chloride (HCl)</b>

Potential Emissions based on maximum capacity at 8,760 hours per year.

\*CDD/CDF = total tetra- through octa- chlorinated dibenzo-p-dioxin/chlorinated dibenzofurans, 2,3,7,8-tetrachlorodibenzo-p-dioxin, and dibenzofurans

**Appendix A: Emission Calculations  
Crematory Incinerators 01 and 02**

**Company Name:** Elkhart Cremation Service  
**Source Address:** 2100 Franklin Street, Elkhart, IN 46516  
**Exemption No.:** E039-32156-00529  
**Reviewer:** Dominic Williams

To estimate the potential to emit for the incineration of human or animal remains, it is assumed that emissions from a crematory incinerator is similar to emissions from combusting refuse in a multiple chamber commercial incinerator.

Unit	Potential Throughput (lbs/hr)	Potential Throughput (tons/yr)
01	100	438
02	200	876
<b>Total</b>	<b>300</b>	<b>1314</b>

**Criteria Pollutants**

Pollutant	PM	PM10**	PM2.5**	SO2	NOx	VOC	CO
Emission Factor in lb/ton*	7.0	7.0	7.0	2.5	3.0	3.0	10.0
Potential Emissions in ton/yr	4.60	4.60	4.60	1.64	1.97	1.97	6.57

**Hazardous Air Pollutants (HAPs)**

Pollutant	As	Cd	Cr	Hg	Ni	Pb	HCl	CDD/CDF
Emission Factor in lb/ton***	5.94E-03	1.09E-02	1.40E-02	5.60E-03	1.81E-02	2.13E-01	6.97E+00	7.25E-05
Potential Emissions in ton/yr	0.004	0.007	0.009	0.004	0.012	0.14	4.58	4.8E-05

**Potential to Emit Total HAPs (tons/year)** **4.76**

**Methodology**

Potential Throughput (tons/yr) = [Potential Throughput (lbs/hr)] \* [8,760 hrs/yr] \* [ton/2000 lbs]  
 Potential to Emit (tons/yr) = [Potential Throughput (tons/yr)] \* [Emission Factor (lb/ton)] \* [ton/2,000 lbs]  
 \*Emission factors are from AP 42 for Refuse Combustion (5th Edition 10/96) Table 2.1-12 (Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chamber)  
 Note: There are no AP 42 emission factors for incineration of human or animal remains. Therefore, it is assumed that emission: from a crematory incinerator is similar to emissions from combusting refuse in a multiple chamber commercial incinerator  
 \*\*No emission factor for PM10 and PM2.5 available (assume PM = PM10= PM2.5  
 \*\*\*There are no hazardous air pollutant (HAP) emission factors for refuse combustors in AP 42 Table 2.1-12. Therefore, the potential to emit (PTE) of HAPs was conservatively estimated using the worst case emission factors for all listed HAPs from AP 42 Tables 2.1-1 through 2.1-9.

**Greenhouse Gases**

Greenhouse Gas	CO2	CH4	N2O
Emission Factor (kg/MMBtu)*	90.7	3.20E-02	4.20E-03
High Heat Value (MMBtu/ton)**	9.95	9.95	9.95
Emission Factor (lb/ton)	1989.6	0.70	0.09
Potential to Emit (tons/yr)	1307.15	0.46	0.06
Summed Potential Emissions in tons/yr	1307.67		
CO2e Total in tons/yr	1335.60		

**Methodology**

\*Under AP 42 Chapter 1.2 Refuse Combustion (5th Edition 10/96), there are no emission factors for CH4 and N2O and the emission factor for CO2 in AP 42 Table 2.1-9 (Modular Starved-Air Combustors) is less than the emission factor calculated from Table C-1 of 40 CFR Part 98, Subpart C (for Municipal Solid Waste). Therefore, CO2, CH4, and N2O emission factors are from Table C-1 and Table C-2, 40 CFR Part 98, Subpart C (for Municipal Solid Waste). In addition, there are no emission factors in 40 CFR Part 98 Subpart C for combustion of human or animal remains. Therefore, it is assumed that CO2, CH4, and N2O emissions from incineration of human or animal remains are similar to CO2, CH4, and N2O emissions from combustion of municipal solid waste.  
 \*\*The High Heat Value (HHV) corresponds to municipal solid waste  
 Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
 Emission Factor (lb/ton) = [Emission Factor (kg/MMBtu)] \* [2.2046 lb/kg] \* [High Heat Value (MMBtu/ton)]  
 Potential to Emit (tons/yr) = [Potential Throughput (tons/yr)] \* [Emission Factor (lb/ton)] \* [ton/2,000 lbs]  
 CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Abbreviations**

PM = Particulate Matter	As = Arsenic	CO2 = Carbon Dioxide
PM10 = Particulate Matter (<10 um)	Cd = Cadmium	CH4 = Methane
PM2.5 = Particulate Matter (<2.5 um)	Cr = Chromium	N2O = Nitrous Oxide
SO2 = Sulfur Dioxide	Hg = Mercury	CO2e = CO2 equivalent emissions
NOx = Nitrous Oxides	Ni = Nickel	
VOC = Volatile Organic Compounds	Pb = Lead	
CO = Carbon Monoxide	HCl = hydrogen chloride	
CDD/CDF = total tetra- through octa- chlorinated dibenzo-p-dioxin/chlorinated dibenzofurans, 2,3,7,8-tetrachlorodibenzo-p-dioxin, and dibenzofurans		

**Appendix A: Emission Calculations  
Natural Gas Combustion Only  
Capacity <100 MMBtu/hr  
Crematory Incinerators 01 and 02**

**Company Name: Elkhart Cremation Service  
Source Address: 2100 Franklin Street, Elkhart, IN 46516  
Exemption No.: E039-32156-00529  
Reviewer: Dominic Williams**

Unit	Maximum Heat Input Capacity (MMBtu/hr)	High Heat Value (MMBtu/MMscf)	Potential Throughput (MMcf/yr)
01	1.70	1020	14.60
02	2.75	1020	23.62
<b>Totals</b>	<b>4.45</b>		<b>38.22</b>

**Criteria Pollutants**

Pollutant	PM*	PM10*	PM2.5*	SO2	NOx**	VOC	CO
Emission Factor in lb/MMcf	1.9	7.6	7.6	0.6	100	5.5	84
Potential Emission in tons/yr	0.04	0.15	0.15	0.011	1.91	0.11	1.61

\*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined. PM2.5 assumed equal to PM10

\*\*Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

**Hazardous Air Pollutants**

Pollutant	HAPs - Organics*				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.01E-05	2.29E-05	1.43E-03	0.034	6.50E-05

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

**Hazardous Air Pollutants**

Pollutant	HAPs - Metals*						
	As	Cd	Cr	Hg	Mn	Ni	Pb
Emission Factor in lb/MMcf	2.0E-04	1.1E-03	1.4E-03	2.6E-04	3.8E-04	2.1E-03	5.0E-04
Potential Emission in tons/yr	3.82E-06	2.10E-05	2.68E-05	4.97E-06	7.26E-06	4.01E-05	9.55E-06

\*The seven highest metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Potential to Emit Total HAPs (tons/year)      0.036**

**Methodology**

All emission factors are based on normal firing.  
MMBtu = 1,000,000 Btu  
MMCF = 1,000,000 Cubic Feet of Gas  
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  
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Greenhouse Gases (GHGs)**

Greenhouse Gas	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	2293.06	0.04	0.04
Summed Potential Emissions in tons/yr	2293.14		
CO2e Total in tons/yr	2307.01		

**Methodology**

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.  
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.  
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.  
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton  
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Abbreviations**

PM = Particulate Matter	As = Arsenic	CO2 = Carbon Dioxide
PM10 = Particulate Matter (<10 um)	Cd = Cadmium	CH4 = Methane
PM2.5 = Particulate Matter (<2.5 um)	Cr = Chromium	N2O = Nitrous Oxide
SO2 = Sulfur Dioxide	Hg = Mercury	CO2e = CO2 equivalent emissions
NOx = Nitrous Oxides	Mn = Manganese	
VOC = Volatile Organic Compounds	Ni = Nickel	
CO = Carbon Monoxide	Pb = Lead	

**Appendix A: Emission Calculations  
Fugitive Dust Emissions - Paved Roads**

**Company Name: Elkhart Cremation Service  
Source Address: 2100 Franklin Street, Elkhart, IN 46516  
Exemption No.: E039-32156-00529  
Reviewer: Dominic Williams**

**Paved Roads at Industrial Site**

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum number of vehicles per day	Number of one-way trips per day per vehicle	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Vehicle 1 (entering plant) (one-way trip)	35.0	1.0	35.0	2.0	70.0	500	0.095	3.3	1209.8
Vehicle 1 (leaving plant) (one-way trip)	35.0	1.0	35.0	2.0	70.0	500	0.095	3.3	1209.8
<b>Total</b>			<b>70.0</b>		<b>140.0</b>			<b>6.6</b>	<b>2419.5</b>

Average Vehicle Weight Per Trip =  $\frac{2.0}{0.09}$  tons/trip  
Average Miles Per Trip =  $\frac{2.0}{0.09}$  miles/trip

Unmitigated Emission Factor, Ef =  $[k * (sL)^{0.91} * (W)^{1.02}]$  (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	2.0	2.0	2.0	tons = average vehicle weight (provided by source)
sL =	9.7	9.7	9.7	g/m <sup>2</sup> = silt loading value for paved roads at iron and steel production facilities - Table 13.2.1-3)

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext =  $E * [1 - (p/4N)]$  (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext =  $Ef * [1 - (p/4N)]$   
where p =  $\frac{128}{365}$  days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)  
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.176	0.035	0.0087	lb/mile
Mitigated Emission Factor, Eext =	0.161	0.032	0.0079	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Vehicle 1 (entering plant) (one-way trip)	0.11	0.02	0.01	0.10	0.02	0.00
Vehicle 1 (leaving plant) (one-way trip)	0.11	0.02	0.01	0.10	0.02	0.00
	<b>0.21</b>	<b>0.04</b>	<b>0.01</b>	<b>0.19</b>	<b>0.04</b>	<b>0.01</b>

**Methodology**

Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] \* [Maximum trips per day (trip/day)]  
Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]  
Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] \* [Maximum one-way distance (mi/trip)]  
Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]  
Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]  
Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Unmitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] \* [Mitigated Emission Factor (lb/mile)] \* (ton/2000 lbs)  
Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] \* [1 - Dust Control Efficiency]

**Abbreviations**

PM = Particulate Matter  
PM10 = Particulate Matter (<10 um)  
PM2.5 = Particulate Matter (<2.5 um)  
PTE = Potential to Emit



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
**Governor**

*Thomas W. Easterly*  
**Commissioner**

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

## SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: William Zimmerman  
Elkhart Cremation Services  
2100 W Franklin Street  
Elkhart, IN 46516

DATE: September 17, 2012

FROM: Matt Stuckey, Branch Chief  
Permits Branch  
Office of Air Quality

SUBJECT: Final Decision  
Exemption  
039-32156-00529

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:  
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at [jbrush@idem.IN.gov](mailto:jbrush@idem.IN.gov).

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

IDEM Staff	PWAY 9/17/2012 Elkhart Cremation Services, LLC 039-32156-00529 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handling Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		William W Zimmerman Elkhart Cremation Services, LLC 2100 W Franklin St Elkhart IN 46516 (Source CAATS)										
2		Elkhart County Health Department Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 (Health Department)										
3		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 (Local Official)										
4												
5												
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11												
12												
13												
14												
15												

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is \$50,000 per piece subject to a limit of \$50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is \$500. The maximum indemnity payable is \$25,000 for registered mail, sent with optional postal insurance. See <b>Domestic Mail Manual R900, S913, and S921</b> for limitations of coverage on inured and COD mail. See <b>International Mail Manual</b> for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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