



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: March 25, 2014

RE: Archer-Weston Funeral and Cremation Center, Inc. / 023-34254-00048

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.dot 6/13/2013



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Michael R. Pence
Governor

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Commissioner

William G. Miller
Archer-Weston Funeral and Cremation Center, Inc.
501 East Clinton Street
Frankfort, IN 46041

March 25, 2014

Re: Exempt Construction and Operation Status,
E023-34254-00048

Dear Mr. Miller:

The application from Archer-Weston Funeral and Cremation Center, Inc., received on March 3, 2014, 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 501 East Clinton Street, Frankfort, IN 46041 is classified as exempt from air pollution permit requirements:

- (a) One (1) crematory incinerator for human remains, a B & L Human Crematory N20SA, identified as BL01, constructed in 2014, with a maximum capacity of 150 pounds per hour, consisting of a primary chamber and a secondary chamber that fire natural gas at a total maximum heat input rate of 1.5 million British thermal units per hour (MMBtu/hr), exhausting to the atmosphere;
- (b) 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



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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.

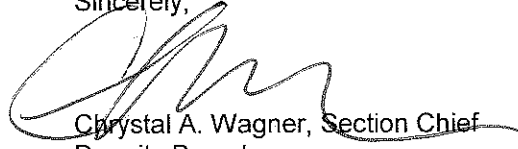
3. Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions, Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate IAC 6-4.
4. Pursuant to 40 CFR 60.2555 (a)(1) and 60.2555 (a)(2), in order to demonstrate that the crematory incinerator is not subject to the requirements of the New Source Performance Standard (NSPS) for Hospital/Medical/Infectious Waste Incinerators for Which Construction is Commenced after June 20, 1996, 40 CFR 60, Subpart CCCC (326 IAC 12), the source shall comply with the following:
 - (a) The Permittee shall notify the IDEM, OAQ Administrator that the 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) 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.
 - (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.

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

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 Roger Osburn, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-233-0242 or at 1-800-451-6027 (ext 3-0242).

Sincerely,



Chrystal A. Wagner, Section Chief
Permits Branch
Office of Air Quality

CAW/rlo

cc: File - Clinton County
Clinton 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: | Archer-Weston Funeral and Cremation Center, Inc. |
| Source Location: | 501 East Clinton Street, Frankfort, IN 46041 |
| County: | Clinton |
| SIC Code: | 7261 (Funeral Service and Crematories) |
| Exemption No.: | E023-34254-00048 |
| Permit Reviewer: | Roger Osburn |

On March 3, 2014, the Office of Air Quality (OAQ) received an application from Archer-Weston Funeral and Cremation Center, Inc., related to the construction and operation of a new stationary source for cremation of human remains.

| |
|---------------------------|
| Existing Approvals |
|---------------------------|

There have been no previous approvals issued to this source.

| |
|---------------------------------|
| County Attainment Status |
|---------------------------------|

The source is located in Clinton County.

| Pollutant | Designation |
|-------------------|--|
| SO ₂ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| O ₃ | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹ |
| PM _{2.5} | Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard. |
| PM _{2.5} | Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard. |
| PM ₁₀ | Unclassifiable effective November 15, 1990. |
| NO ₂ | Cannot be classified or better than national standards. |
| Pb | Unclassifiable or attainment effective December 31, 2011. |

¹Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.

- (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. Clinton 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) **PM_{2.5}**
Clinton County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} 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_{2.5} significant level at ten (10) tons per year. This rule became effective, June 28, 2011. Therefore, direct PM_{2.5} and SO₂ 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
Clinton County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM₁₀, and Pb. 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 Archer-Weston Funeral and Cremation Center, Inc. on March 3, 2014, relating to the operation of a stationary source for cremation of human remains.

The source consists of the following new emission unit(s):

- (a) One (1) crematory incinerator for human remains, a B & L Human Crematory N20SA, identified as BL01, constructed in 2014, with a maximum capacity of 150 pounds per hour, consisting of a primary chamber and a secondary chamber that fire natural gas at a total maximum heat input rate of 1.5 million British thermal units per hour (MMBtu/hr), exhausting to the atmosphere;
- (b) 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 ₂ | NOx | VOC | CO | GHGs as CO ₂ e** | Total HAPs | Worst Single HAP |
| Incineration | 2.30 | 2.30 | 2.30 | 0.82 | 0.99 | 0.99 | 3.29 | 667.80 | 2.38 | 2.29 (HCl) |
| Natural Gas Combustion | 0.01 | 0.05 | 0.05 | 0.004 | 0.64 | 0.04 | 0.54 | 772.94 | 0.012 | 0.0005 (Formaldehyde) |
| Paved Roads | 0.56 | 0.11 | 0.03 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | -- |
| Total PTE of Entire Source | 2.87 | 2.46 | 2.38 | 0.83 | 1.63 | 1.02 | 3.83 | 1440.74 | 2.39 | 2.29 (HCl) |
| 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 ₂ 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. | | | | | | | | | | |

Criteria Pollutants (PM₁₀, PM_{2.5}, SO₂, NOx, VOC, and CO)

- (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).

Hazardous Air Pollutants

- (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.

Greenhouse Gases (GHGs) as CO₂e

- (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 CO₂ equivalent (CO₂e) emissions 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 incinerator (BL01) is not a Hospital/Medical/ Infectious Waste Incinerator 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 registration, because the crematory incinerator (BL01) is not considered a Municipal Waste Combustor and does 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 incinerator (BL01) is not considered a Commercial and Industrial Solid Waste Incineration (CISWI) Unit 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 following two requirements specified in paragraphs (a)(1) and (2) of 40 CFR 60.2555.
- (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 (01, 02, and 03) 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 source 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 incinerator (BL01) is not considered an Other Solid Waste Incineration (OSWI) unit as defined by 40 CFR 60.2977. The crematory incinerator (BL01) 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 registration 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 incinerator (BL01) is not considered a hazardous waste incinerator 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 exemption, 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.

State Rule Applicability Determination

326 IAC 2-1.1-3 (Exemptions)

Exemption applicability is discussed under the Permit Level Determination – Exemption section above.

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.

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.

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.

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.

326 IAC 6.5 (PM Limitations Except Lake County)

This source is not subject to 326 IAC 6.5 because it is not located in Clark, Dearborn, Dubois, Howard, Marion, St. Joseph, Vanderburgh, Vigo or Wayne County and it does not have the potential to emit particulate matter is equal to or greater than 10 tons per year.

326 IAC 6.8 (Particulate Matter Limitations for Lake County)

This source is not subject to 326 IAC 6.8 because it is not located in Lake County and it does not have the potential to emit particulate matter is equal to or greater than 10 tons per year.

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.

326 IAC 12 (New Source Performance Standards)

See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)

See Federal Rule Applicability Section of this TSD.

Crematory Incinerator (BL01)

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 incinerator (BL01) is not subject to the requirements of 326 IAC 6-2, because the unit is not an indirect heating unit.

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

Pursuant to 326 IAC 6-3-1(a)(2), crematory incinerator (BL01) is exempt from the requirements of 326 IAC 6-3.

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

The crematory incinerator (BL01) is not subject to the requirements of 326 IAC 7-1, because the has potential and 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 incinerator (BL01) is not subject to the requirements of 326 IAC 8-1-6, since the has unlimited VOC potential emissions of less than twenty-five (25) tons per year.

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

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).

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 incinerator (BL01) burns pathological waste and does 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 incinerator (BL01) is 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 incinerator (BL01) is not subject to the requirements of 326 IAC 11-6, because the unit is not a hospital/medical/ infectious waste incinerator and the unit was 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 incinerator (BL01) is not subject to the requirements of 326 IAC 11-7, since the unit is considered a pathological waste combustor and not a municipal waste combustor, and each unit was 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 incinerator (BL01) is not subject to the requirements of 326 IAC 11-8, because the unit is not considered a commercial and industrial solid waste incineration (CISWI) unit as defined 40 CFR 60.2875, and the unit was not constructed on or before November 30, 1999.

| |
|--------------------------------------|
| Conclusion and Recommendation |
|--------------------------------------|

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 March 3, 2014.

The construction and operation of this source shall be subject to the conditions of the attached proposed Exemption No. 023-34254-00048. The staff recommends to the Commissioner that this Exemption be approved.

| |
|---------------------|
| IDEM Contact |
|---------------------|

- (a) Questions regarding this proposed permit can be directed to Roger Osburn 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) 233-0242 or toll free at 1-800-451-6027 extension 3-0242.
- (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

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

Company Name: Archer-Weston Funeral and Cremation Center, Inc.
Source Address: 501 East Clinton Street, Frankfort, IN
Registration No.: 023-34254-00048
Reviewer: Roger Osburn

| Category | Uncontrolled Potential Emissions (tons/year) | | | | |
|--------------------------|---|--------------|------------------------|------------------------|-------------|
| | Emissions Generating Activity | | | | |
| | Pollutant | Incineration | Natural Gas Combustion | Paved Roads (fugitive) | TOTAL |
| Criteria Pollutants | PM | 2.30 | 0.01 | 0.56 | 2.87 |
| | PM10 | 2.30 | 0.05 | 0.11 | 2.46 |
| | PM2.5 | 2.30 | 0.05 | 0.03 | 2.38 |
| | SO2 | 0.82 | 0.004 | 0.0 | 0.83 |
| | NOx | 0.99 | 0.64 | 0.0 | 1.63 |
| | VOC | 0.99 | 0.04 | 0.0 | 1.02 |
| | CO | 3.29 | 0.54 | 0.0 | 3.83 |
| | GHGs as CO2e | 668.36 | 777.53 | 0.0 | 1445.89 |
| Hazardous Air Pollutants | Arsenic | 1.95E-03 | 1.29E-06 | 0.0 | 1.95E-03 |
| | Benzene | 0.0 | 1.35E-05 | 0.0 | 1.35E-05 |
| | Cadmium (Cd) | 3.58E-03 | 7.09E-06 | 0.0 | 3.59E-03 |
| | Chromium (Cr) | 0.005 | 9.02E-06 | 0.0 | 0.005 |
| | Dichlorobenzene | 0.0 | 7.73E-06 | 0.0 | 7.73E-06 |
| | CDD/CDF* | 2.38E-05 | 0.0 | 0.0 | 2.38E-05 |
| | Formaldehyde | 0.0 | 4.83E-04 | 0.0 | 4.83E-04 |
| | Hydrogen Chloride (HCl) | 2.29 | 0.0 | 0.0 | 2.29 |
| | Lead (Pb) | 0.07 | 3.22E-06 | 0.0 | 0.07 |
| | Manganese (Mn) | 0.0 | 2.45E-06 | 0.0 | 2.45E-06 |
| | Mercury (Hg) | 1.84E-03 | 0.0 | 0.0 | 0.002 |
| | n-Hexane | 0.0 | 0.012 | 0.0 | 0.012 |
| | Nickel (Ni) | 0.006 | 1.35E-05 | 0.0 | 0.006 |
| | Toluene | 0.0 | 2.19E-05 | 0.0 | 2.19E-05 |
| | Totals | 2.38 | 0.012 | 0.0 | 2.39 |
| | Worse Case HAP Hydrogen Chloride (HCl) | | | | |
| | 2.29 | | | | |

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 Incinerator**

Company Name: Archer-Weston Funeral and Cremation Center, Inc.
Source Address: 501 East Clinton Street, Frankfort, IN
Registration No.: 023-34254-00048
Reviewer: Roger Osburn

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) |
|--------------|-------------------------------|--------------------------------|
| BL01 | 150 | 657 |
| Total | 150 | 657 |

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 | 2.30 | 2.30 | 2.30 | 0.82 | 0.99 | 0.99 | 3.29 |

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 | 0.002 | 0.004 | 0.005 | 0.002 | 0.006 | 0.07 | 2.29 | 2.4E-05 |

Potential to Emit Total HAPs (tons/year) 2.38

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) | 653.58 | 0.23 | 0.03 |
| Summed Potential Emissions in tons/yr | 653.84 | | |
| CO2e Total in tons/yr based on 11/29/2013 | 668.36 | | |
| CO2e Total in tons/yr based on 10/30/2009 | 667.80 | | |

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) based on 11/29/2013 federal GWPs= CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298)
 CO2e (tons/yr) based on 10/30/2009 federal GWPs = 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 = Nitrogen 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 dibenzofuran | | |

Appendix A: Emission Calculations
Natural Gas Combustion Only
Capacity <100 MMBtu/hr
Crematory Incinerator

Company Name: Archer-Weston Funeral and Cremation Center, Inc.
Source Address: 501 East Clinton Street, Frankfort, IN
Registration No.: 023-34254-00048
Reviewer: Roger Osburn

| Unit | Maximum Heat Input Capacity (MMBtu/hr) | High Heat Value (MMBtu/MMscf) | Potential Throughput (MMcf/yr) |
|---------------|--|-------------------------------|--------------------------------|
| 01 | 1.50 | 1020 | 12.88 |
| Totals | 1.50 | | 12.88 |

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 | 0.01 | 0.05 | 0.05 | 0.004 | 0.64 | 0.04 | 0.54 |

*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 | 1.35E-05 | 7.73E-06 | 4.83E-04 | 0.012 | 2.19E-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 | 1.29E-06 | 7.09E-06 | 9.02E-06 | 1.67E-06 | 2.45E-06 | 1.35E-05 | 3.22E-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) **0.012**

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 | 772.94 | 0.01 | 0.01 |
| Summed Potential Emissions in tons/yr | 772.97 | | |
| CO2e Total in tons/yr based on 11/29/2013 | 778 | | |
| CO2e Total in tons/yr based on 10/30/2009 | 778 | | |

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) based on 11/29/2013 federal GWPs = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).
 CO2e (tons/yr) based on 10/30/2009 federal GWPs = 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: Archer-Weston Funeral and Cremation Center, Inc.
Source Address: 501 East Clinton Street, Frankfort, IN
Registration No.: 023-34254-00048
Reviewer: Roger Osburn

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 (Based on operations at a similar facility)

| 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) | 100.0 | 1.0 | 100.0 | 2.0 | 200.0 | 500 | 0.095 | 9.5 | 3456.4 |
| Vehicle 1 (leaving plant) (one-way trip) | 100.0 | 1.0 | 100.0 | 2.0 | 200.0 | 500 | 0.095 | 9.5 | 3456.4 |
| Total | | | 200.0 | | 400.0 | | | 18.9 | 6912.9 |

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 (Based on vehicles observed at a similar facility) |
| sL = | 9.7 | 9.7 | 9.7 | g/m ² = 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 = $\frac{125}{365}$ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = $\frac{365}{365}$ 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) | 0.30 | 0.06 | 0.01 | 0.28 | 0.06 | 0.01 |
| Vehicle 1 (leaving plant) (one-way trip) | 0.30 | 0.06 | 0.01 | 0.28 | 0.06 | 0.01 |
| | 0.61 | 0.12 | 0.03 | 0.56 | 0.11 | 0.03 |

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)

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.

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

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

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

TO: William Miller
Archer-Weston Funeral and Cremation Center, Inc.
501 East Clinton Street
Frankfort, IN 46041

DATE: March 25, 2014

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

SUBJECT: Final Decision
Exemption
023-34254-00048

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.

Final Applicant Cover letter.dot 6/13/2013

Mail Code 61-53

| | | | |
|----------------------------|---|---|--|
| IDEM Staff | GHOTOPP 3/25/2014 Archer-Weston Funeral and Cremation Center, Inc. 023-34254-00048 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 | Type of Mail: CERTIFICATE OF MAILING ONLY | |

| Line | Article Number | Name, Address, Street and Post Office Address | Postage | Handing 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 Miller Archer-Weston Funeral and Cremation Center, Inc. 200 S Main St Frankfort IN 46041 (Source CAATS) via confirmed delivery | | | | | | | | | | |
| 2 | | Frankfort City Council and Mayors Office 301 E. Clinton Street Frankfort IN 46041 (Local Official) | | | | | | | | | | |
| 3 | | Clinton County Health Department 400 E Clinton Street Frankfort IN 46041 (Health Department) | | | | | | | | | | |
| 4 | | Clinton County Board of Commissioners 125 Courthouse Square Frankfort IN 46041-1942 (Local Official) | | | | | | | | | | |
| 5 | | Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party) | | | | | | | | | | |
| 6 | | Ginger L Sandage 500 East Clinton Street Frankfort IN 46041 (Affected Party) | | | | | | | | | | |
| 7 | | Michael R Brooks 51 South Clay Street Frankfort IN 46041 (Affected Party) | | | | | | | | | | |
| 8 | | Douglass L Montgomery 558 East Clinton Street Frankfort IN 46041 (Affected Party) | | | | | | | | | | |
| 9 | | Tennant 553 East Clinton Street Frankfort IN 46401 (Affected Party) | | | | | | | | | | |
| 10 | | Tennant 457 East Clinton Street Frankfort IN 46041 (Affected Party) | | | | | | | | | | |
| 11 | | Tennant 10 South Clay Street Frankfort IN 46401 (Affected Party) | | | | | | | | | | |
| 12 | | | | | | | | | | | | |
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| 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 Domestic Mail Manual R900, S913, and S921 for limitations of coverage on inured and COD mail. See International Mail Manual 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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