



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: September 21, 2005

RE: Klaehn, Fahl, and Melton Funeral Home / 003-21738-00338

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

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 IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of 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
FN-REGIS.dot 1/10/05



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

Mr. Stan Fahl
Klaehn, Fahl, & Melton Funeral Home
6424 Winchester Road
Fort Wayne, Indiana 46819

September 21, 2005

Dear Mr. Fahl:

Re: Exempt Construction and Operation Status,
003-21738-00338

The application from Klaehn, Fahl, & Melton Funeral Home, received on September 7, 2005, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1-1, it has been determined that the following operation at Klaehn, Fahl, & Melton Funeral Home, located at 6424 Winchester Road, Fort Wayne, Indiana, is classified as exempt from air pollution permit requirements:

- (a) One (1) crematory incinerator for human remains, identified as MCD-PPH, with a maximum capacity of 150 pounds per hour, using natural gas as supplemental fuel, at a maximum heat input rate of 1.9 million Btu per hour, using no control.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:
 - (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.
- (b) Pursuant to 326 IAC 4-2-2, the crematory incinerator shall:
 - (1) Consist of primary and secondary chambers or the equivalent.
 - (2) Be equipped with a primary burner.
 - (3) Comply with 326 IAC 5-1 and 326 IAC 2.

- (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified under 326 IAC 4-2-2(c).
- (5) Not emit particulate matter in excess of five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
- (6) If any of the above requirements (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.
- (7) The incinerator is exempt from requirement (5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.

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

Sincerely,

Original Signed By:
Nysa L. James, Section Chief
Permits Branch
Office of Air Quality

AY/EVP

cc: File – Allen County
Allen County Health Department
Air Compliance – Jim Thorpe
Permit Tracking
Compliance Data Section

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

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name:	Klaehn, Fahl, & Melton Funeral Home
Source Location:	6424 Winchester Road, Fort Wayne, IN 46819
County:	Allen
SIC Code:	7261
Operation Permit No.:	003-21738-00338
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed an application from Klaehn, Fahl, & Melton Funeral Home relating to the construction and operation of human crematory incinerator.

New Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) crematory incinerator for human remains, identified as MCD-PPII, with a maximum capacity of 150 pounds per hour, using natural gas as supplemental fuel, at a maximum heat input rate of 1.9 million Btu per hour, using no control.

Existing Approvals

This new source has no existing approvals.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

A complete application for the purposes of this review was received on September 7, 2005.

Emission Calculations

See Appendix A of this document for detailed emissions calculations (Appendix A, pages 1 through 4).

Potential to Emit (of the Source or Revision) Before Controls

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

Pollutant	Potential to Emit (tons/yr)
PM	1.52
PM-10	1.56
SO ₂	0.50
VOC	0.75
CO	2.90
NO _x	1.53
HAPs	Negl.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of pollutants are less than the levels listed in 326 IAC 2-1.1-3(d)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3. An exemption will be issued.
- (b) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Allen County.

Pollutant	Status
PM2.5	Attainment
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-hour Ozone	Attainment
8-hour Ozone	Non Attainment
CO	Attainment
Lead	Attainment

- (a) 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 the ozone standards. Allen County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3.

- (b) Allen County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.
- (c) Allen County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Source Status

New Source PSD Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	1.52
PM-10	1.56
SO ₂	0.50
VOC	0.75
CO	2.90
NO _x	1.53
Single HAP	Negl.
Combination HAPs	Negl.

- (a) This new source is not a major stationary source because no attainment pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.
- (b) This new source is not a major stationary source because no nonattainment pollutant is emitted at a rate of 100 tons per year or greater. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

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

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

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) The requirements of New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.50, Subpart E) are not included in the permit for one (1) natural gas fired crematory incinerator with a maximum heat input rate of 1.9 MMBtu per hour and maximum charge capacity of 100 pounds per hour because the maximum charge capacity of the incinerator is below the rule applicability threshold of 50 tons per day.

- (b) The requirements of National Emission Standards for Hazardous Air Pollutants (NESHAPs) (40 CFR 63, Subpart EEE) are not included in this permit for one natural gas fired crematory incinerator because the incinerator does not combust any hazardous waste as defined in 40 CFR 261.

State Rule Applicability – Entire Source

326 IAC 1-6-3 (Preventive Maintenance Plan)

This source is not subject to 326 IAC 1-6, because the source is not required to obtain a permit under 326 IAC 2.

326 IAC 2-4.1 (Hazardous Air Pollutants)

This source is not subject to 326 IAC 2-4.1, because it is not a major source of hazardous air pollutants, as defined in 40 CFR 63.

326 IAC 2-6 (Emission Reporting)

This source is not subject to 326 IAC 2-6 (Emission Reporting), because it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program.

326 IAC 5-1 (Opacity Limitations)

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

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

State Rule Applicability – Individual Facilities

326 IAC 4-2-2 (Incinerators: requirements)

Pursuant to 326 IAC 4-2-2, the crematory incinerator shall:

- (1) Consist of primary and secondary chambers or the equivalent.
- (2) Be equipped with a primary burner.
- (3) Comply with 326 IAC 5-1 and 326 IAC 2.
- (4) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified under 326 IAC 4-2-2(c).
- (5) Not emit particulate matter in excess of five-tenths (0.5) pound of particulate matter per one thousand (1,000) pounds of dry exhaust gas under standard conditions corrected to fifty percent (50%) excess air.
- (6) If any of the above requirements (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.
- (7) The incinerator is exempt from requirement (5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.

Conclusion

The construction and operation of the human crematory incinerator shall be subject to the conditions of the attached proposed Exemption No. 003-21738-00338.

Appendix A: Emission Calculations

Company Name: Klaehn, Fahl, & Melton Funeral Home
Address City IN Zip: 6424 Winchester Road, Fort Wayne, Indiana 46819
Permit No.: 003-21738-00338
Reviewer: Adeel Yousuf / EVP
Date: September 15, 2005

Uncontrolled Potential Emissions (tons/year)			
Emissions Generating Activity			
Pollutant	Burner Natural Gas Combustion	Incineration	TOTAL
PM	0.02	1.50	1.52
PM10	0.06	1.50	1.56
SO2	0.00	0.50	0.50
NOx	0.83	0.70	1.53
VOC	0.05	0.70	0.75
CO	0.70	2.20	2.90
total HAPs	negl.	negl.	negl.
worst case single HAP	negl.	negl.	negl.
Total emissions based on rated capacity at 8,760 hours/year.			
Controlled Potential Emissions (tons/year)			
Emissions Generating Activity			
Pollutant	Burner Natural Gas Combustion	Incineration	TOTAL
PM	0.02	1.50	1.52
PM10	0.06	1.50	1.56
SO2	0.00	0.50	0.50
NOx	0.83	0.70	1.53
VOC	0.05	0.70	0.75
CO	0.70	2.20	2.90
total HAPs	negl.	negl.	negl.
worst case single HAP	negl.	negl.	negl.
Total emissions based on rated capacity at 8,760 hours/year, after control.			

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

Company Name: Klaehn, Fahl, & Melton Funeral Home
Address City IN Zip: 6424 Winchester Road, Fort Wayne, Indiana 46819
Permit No.: 003-21738-00338
Reviewer: Adeel Yousuf / EVP
Date: September 15, 2005

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

1.9

16.6

One (1) cremation incinerator rated at combined maximum heat input rate of 1.9 MMBtu per hour.

Pollutant

	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.02	0.06	0.00	0.83	0.05	0.70

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

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

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 2 for HAPs emissions calculations.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

HAPs Emissions

Company Name: Klaehn, Fahl, & Melton Funeral Home
Address City IN Zip: 6424 Winchester Road, Fort Wayne, Indiana 46819
Permit No.: 003-21738-00338
Reviewer: Adeel Yousuf / EVP
Date: September 15, 2005

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	1.748E-05	9.986E-06	6.242E-04	1.498E-02	2.829E-05

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	4.161E-06	9.154E-06	1.165E-05	3.162E-06	1.748E-05

Methodology is the same as page 2.

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

**Appendix A: Emission Calculations
Industrial/Commercial Incinerator**

**Company Name: Klaehn, Fahl, & Melton Funeral Home
Address City IN Zip: 6424 Winchester Road, Fort Wayne, Indiana 46819
Permit No.: 003-21738-00338
Reviewer: Adeel Yousuf / EVP
Date: September 15, 2005**

POTENTIAL	POTENTIAL
THROUGHPUT	THROUGHPUT
lbs/hr	ton/yr
100	438

	POLLUTANT				
	PM/PM10	SO2	CO	VOC	NOX
Emission Factor in lb/ton	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	1.5	0.5	2.2	0.7	0.7

Methodology

Emission factors are from AP 42 (5th Edition 1/95) Table 2.1-12, Uncontrolled emission factors for industrial/commercial refuse combustors, multiple chambers

Throughput (lb/hr) * 8760 hr/yr * ton/2000 lb = throughput (ton/yr)