



February 8, 2005

Certified Mail: 7000 0600 0023 5187 9321

Jeff Bell
Bell Professional Mortuary Services, Inc.
2330 West Washington Street
Indianapolis, Indiana 46222

Re: Exempt Construction and Operation Status, 097-20405-00557

Dear Mr. Bell:

The application from Bell Professional Mortuary Services, Inc., received on May 3, 2004, 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 operation of cremation of human remains, located at 2330 West Washington Street, Indianapolis, Indiana 46222, is classified as exempt from air pollution permit requirements:

One (1) crematory, identified as BL-02, with a maximum operating capacity of 150 pounds per hour (lbs/hr), using natural gas as a supplemental fuel at maximum heat input capacity of 1.5 million Btu per hour (MMBtu/hr) 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:
 - (1) Opacity shall not exceed an average of thirty percent (30%) 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 15 minutes (60 readings) in a 6-hour period 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 (Incinerators: requirements), the crematory 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 approved by the Commissioner.

- (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 (a)(5) if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.

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

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Environmental Services (OES) and IDEM, 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, please feel free to contact Angelique Oligier at 327-2846 or aoliger@indygov.org.

Sincerely,

ORIGINAL SIGNED BY

John B. Chavez
Administrator

aco

cc: OES Files - 2 copies
Compliance - Matt Mosier
USEPA - R5
Marion County Health Dept.
IDEM, Mindy Hahn

**Indiana Department of Environmental Management
Office of Air Quality
and
City of Indianapolis
Office of Environmental Services**

Technical Support Document (TSD) for an Exemption

Source Background and Description

Source Name: Bell Professional Mortuary Services, Inc.
Source Location: 2330 West Washington Street, Indianapolis, Indiana 46222
County: Marion
SIC Code: 7261
Operation Permit No.: 097-20405-00557
Permit Reviewer: Angelique Oliger

The Office of Environmental Services (OES) has reviewed an application from Bell Professional Mortuary Services, Inc. relating to the following emissions unit:

One (1) animal crematory, identified as BL-02, with a maximum operating capacity of 150 pounds per hour (lbs/hr), using natural gas as a supplemental fuel at maximum heat input capacity of 1.5 million Btu per hour (MMBtu/hr), using no control.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

A complete application for the purposes of this review was received on May 3, 2004.

Emission Calculations

See Appendix A (two pages) of this document for detailed emissions calculations.

Potential To Emit

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/year)
PM	2.3
PM-10	2.3
SO ₂	0.8
VOC	1.0
CO	3.9
NO _x	1.7

- (a) The potential to emit (as defined in 326 IAC 2-7-1 (29)) of the 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.
- (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.

Actual Emissions

No previous emission data has been received from the source.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	attainment
SO ₂	maintenance attainment
NO ₂	attainment
8-hour Ozone	basic nonattainment
1-hour Ozone	maintenance attainment
CO	attainment
Lead	unclassifiable

- (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. Marion County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for nonattainment new source review.

- (b) Marion County has been classified as attainment or unclassifiable in Indiana for PM10, SO₂, NO₂, CO, and Lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (c) Fugitive Emissions
Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, or 326 IAC 2-3 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.

Source Status

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

Pollutant	Emissions (ton/yr)
PM	2.3
PM10	2.3
SO ₂	0.8
VOC	1.0
CO	3.3
NO _x	1.0
Single HAP	negligible
Combination	negligible

- (a) This existing source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, 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 existing source is not a major stationary source because no nonattainment regulated pollutant is emitted at a rate of 100 tons or greater per year. 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/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source. The crematory has a charge rate of less than fifty (50) tons per day. Therefore, it is not subject to the requirements of 40 CFR Part 60 Subpart E.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. The crematory does not combust hazardous waste as defined in 40 CFR 261. Therefore, it is not subject to the requirements of 40 CFR 63 Subpart EEE.

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 located in Marion County, it is not required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, and it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year.

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

Pursuant to 326 IAC 4-2-2, the crematory 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 approved by the Commissioner.
- (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.

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:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.

Conclusion

The operation of cremation of human remains shall be exempt from air pollution control permit requirements by exemption 097-20405-00557.

Appendix A: Emission Calculations
Incinerator

Company Name: Bell Professional Mortuary Services, Inc.
Address City IN Zip: 2330 West Washington Street, Indianapolis, Indiana
Exemption: 097-20405-00557
Reviewer: Angelique Oliger
Date: January 14, 2005

Throughput lbs/hr 150

Throughput
ton/yr
657

Emission Factor in lb/ton	POLLUTANT				
	PM	SO2	CO	VOC	NOX
Potential Emissions in ton/yr	7.0	2.5	10.0	3.0	3.0
	2.3	0.8	3.3	1.0	1.0

Methodology

Emission factors are from AP 42 Table 2.1-12 Uncontrolled emission factors for industrial/commercial refuse combustors, other than municipal waste, multiple chambers

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

Emission Factor (lb/ton) * throughput(ton/yr)* 1 ton / 2000 lbs = Potential Emissions (tons/ yr)

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

Company Name: Bell Professional Mortuary Services, Inc.
Address City IN Zip: 2330 West Washington Street, Indianapolis, Indiana
Exemption: 097-20405-00557
Reviewer: Angelique Oliger
Date: January 14, 2005

	Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
Pet cremator	1.5	
	1.5	13.1

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100.0	5.5	84.0
				**see below		
Potential Emission in tons/yr	0.0	0.0	0.0	0.7	0.0	0.6

*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