



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

July 22, 2004

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

TO: Interested Parties / Applicant

RE: Greater Southside Crematory / 081-19484-00027

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 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

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Commissioner

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July 21, 2004

Steven R. St. Pierre
Greater Southside Crematory
P.O. Box 33045
Indianapolis, IN 46203

Re: Registered Construction and Operation Status,
081-19484-00027

Dear Mr. St. Pierre:

The application from Greater Southside Crematory, received on June 17, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.1 it has been determined that the following crematory, to be located at 481 West Main Ave, Greenwood, Indiana, is classified as registered:

- (a) One (1) crematory incinerator for human remains, identified as BL01, exhausting to stack 01, capacity: one hundred (100) pounds per hour, supplemented by natural gas at a rate of 1.50 million British thermal units per hour.
- (b) One (1) crematory incinerator for human remains, identified as A11, exhausting to stack A11 01, capacity: one hundred fifty (150) pounds per hour, supplemented by natural gas at a rate of 1.50 million British thermal units per hour.
- (c) One (1) crematory incinerator for human remains, identified as BL02, exhausting to stack 012, capacity: one hundred fifty (150) pounds per hour, supplemented by natural gas at a rate of 1.50 million British thermal units per hour.

The following conditions shall be applicable:

326 IAC 4-2-2 (Incinerators)

Pursuant to 326 IAC 4-2-2, the three (3) crematory incinerators, identified as BL01, A11, and BL02, shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) Be equipped with a primary burner unless burning wood products;
- (c) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules);
- (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(1)
- (e) Not emit particulate matter (PM) in excess of 0.5 pounds per 1,000 pounds of dry exhaust gas corrected to fifty percent (50%) excess air.

The operation of the incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

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:

- (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 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.

This registration is second air approval issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.1-2(f)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

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
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

CJF/MES

cc: File - Johnson County
Johnson County Health Department
Air Compliance - Vaughn Ison
Permit Tracking
Compliance Data Section

Registration Annual Notification

This form should be used to comply with the notification requirements under **326 IAC 2-5.1-2(f)(3)** or **326 IAC 2-5.5-4(a)(3)**

Company Name:	Greater Southside Crematory
Address:	481 West Main Street
City:	Greenwood, IN 46142
Authorized individual:	Steven R. St. Pierre
Phone #:	317-687-0663
Registration #:	081-19484-00027

I hereby certify that **Greater Southside Crematory** is still in operation and is in compliance with the requirements of Registration **081-19484-00027**.

Name (typed):
Title:
Signature:
Date:

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

Technical Support Document (TSD) for a New Source Construction and Registration

Source Background and Description

Source Name:	Greater Southside Crematory
Source Location:	481 West Main Street, Greenwood, IN 46142
County:	Johnson
SIC Code:	7261
Exemption No.:	081-15100-00027
Exemption Issuance Date:	January 16, 2002
Registration No.:	R 081-19484-00027
Permit Reviewer:	Craig J. Friederich

The Office of Air Quality (OAQ) has reviewed an application from Greater Southside Crematory relating to the construction and operation of a new crematory incinerator at an existing crematory source.

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) crematory incinerator for human remains, identified as BL01, exhausting to stack 01, capacity: one hundred (100) pounds per hour, supplemented by natural gas at a rate of 1.50 million British thermal units per hour.
- (b) One (1) crematory incinerator for human remains, identified as A11, exhausting to stack A11 01, capacity: one hundred fifty (150) pounds per hour, supplemented by natural gas at a rate of 1.50 million British thermal units per hour.

New Emission Units and Pollution Control Equipment

- (c) One (1) crematory incinerator for human remains, identified as BL02, exhausting to stack 012, capacity: one hundred fifty (150) pounds per hour, supplemented by natural gas at a rate of 1.50 million British thermal units per hour.

Unpermitted Emission Units and Pollution Control Equipment

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

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

Exemption 081-15100-00027 issued on January 16, 2002.

All conditions from previous approvals were incorporated into this permit.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
01	Crematory Incinerator	21.0	1.50	2,100	1100
A11 01	Crematory Incinerator	18.0	2.00	2,400	1600
02	Crematory Incinerator	21.0	1.50	2,000	900

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 June 17, 2004.

Emission Calculations

See Appendix A (pages 1 through 3 of 3) of this document for detailed emission 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/yr)
PM	6.17
PM ₁₀	6.28
SO ₂	2.20
VOC	2.74
CO	10.4
NO _x	4.60

HAPs	Potential to Emit (tons/yr)
Total HAPS	0.037

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM₁₀ is greater than five (5) tons per year but less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration 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 Johnson County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
1-Hour Ozone	Attainment
8-Hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x are considered when evaluating the rule applicability relating to ozone. Johnson County has been designated as nonattainment for ozone. Therefore, VOC emissions and NO_x were reviewed pursuant to the requirements for nonattainment new source review. See the State Rule Applicability for the source section.
- (b) Johnson County has been classified as attainment or unclassifiable for all 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.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 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

Existing Source PSD, Part 70, or FESOP 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	6.17
PM ₁₀	6.28
SO ₂	2.20
VOC	2.74
CO	10.4
NO _x	4.60
Combination HAPs	0.037

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 greater, no nonattainment pollutant is emitted at a rate of 100 tons per year or greater, and it is not in one of the 28 listed source categories.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this permit R 081-19484-00027, is still 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) the combination of HAPs is less than 25 tons per year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

- (a) The three (3) crematory incinerators have a charge rate of less than fifty (50) tons per day each. Therefore, these incinerators are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR 60.50, Subpart E.
- (b) The three (3) crematory incinerators do not combust any hazardous waste as defined in 40 CFR 261. Therefore, the incinerators are not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) 40 CFR 63, Subpart EEE.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

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

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of 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)

Pursuant to 326 IAC 4-2-2, the three (3) crematory incinerators, identified as BL01, A11, and BL02, shall:

- (a) Consist of primary and secondary chambers or the equivalent;
- (b) Be equipped with a primary burner unless burning wood products;
- (c) Comply with 326 IAC 5-1 (Opacity Limitations) and 326 IAC 2 (Permit Review Rules);
- (d) Be maintained, operated, and burn waste in accordance with the manufacturer's specifications or an operation and maintenance plan as specified in 326 IAC 4-2-2(1)
- (e) Not emit particulate matter (PM) in excess of 0.5 pounds per 1,000 pounds of dry exhaust gas corrected to fifty percent (50%) excess air.

The operation of the incinerator shall be terminated immediately upon noncompliance with any of the above mentioned requirements.

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

Pursuant to 326 IAC 6-3, Incinerators are exempt from the requirements of this rule.

Conclusion

The construction and operation of this new crematory incinerator at an existing crematory shall be subject to the conditions of the New Source Construction and Registration Permit 081-19484-00027.

**Appendix A: Emission Calculations
Incinerator**

Three (3) Crematories
Company Name: Greater Southside Crematory
Address City IN Zip: 481 West Main Street, Greenwood, IN 46142
Registration Number: R 081-19484
Plt ID: 081-00027
Reviewer: Craig J. Friederich
Application Date: June 17, 2004

<p align="center">THROUGHPUT lbs/hr 400</p>

THROUGHPUT
ton/yr
1752

	POLLUTANT				
	PM	SO2	CO	VOC	NOX
Emission Factor in lb/ton	7.0	2.5	10.0	3.0	3.0
Potential Emissions in ton/yr	6.13	2.19	8.76	2.63	2.63

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)

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

Company Name: Greater Southside Crematory
Address City IN Zip: 481 West Main Street, Greenwood, IN 46142
Registration Number: R 081-19484
Plt ID: 081-00027
Reviewer: Craig J. Friederich
Application Date: June 17, 2004

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

4.50

39

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.90	7.60	0.600	100	5.50	84.0
				**see below		
Potential Emission in tons/yr	0.037	0.150	0.012	1.97	0.108	1.66

*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 3 for HAPs emissions calculations.

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

**Company Name: Greater Southside Crematory
 Address City IN Zip: 481 West Main Street, Greenwood, IN 46142
 Permit Number: R 081-19484
 Pit ID: 081-00027
 Reviewer: Craig J. Friederich
 Date: June 17, 2004**

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03
Potential Emission in tons/yr	4.14E-05	2.37E-05	1.48E-03	3.55E-02	6.70E-05

HAPs - Metals						
Emission Factor in lb/MMcf	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03	Total
Potential Emission in tons/yr	9.86E-06	2.17E-05	2.76E-05	7.49E-06	4.14E-05	0.037

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.