



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

*Mitchell E. Daniels Jr.*  
Governor

*Thomas W. Easterly*  
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 18, 2009

RE: Saint Mary's College / 141-28519-00567

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

## Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures  
FNPER-AM.dot12/3/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Dan Woods  
Rm 256, Student Center  
Saint Mary's College  
Notre Dame, IN 46556

December 18, 2009

Re: Exempt Construction and Operation Status,  
141-28519-00567

Dear Mr. Woods

The application from St. Mary's College, received on September 29, 2009, 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 emission units at an existing college located at St. Mary's College, Notre Dame, Indiana 46556 are classified as exempt from air pollution permit requirements:

- (a) Natural gas-fired heating units located in Spes Unica Hall:
  - (1) Two (2) natural gas-fired boilers, identified as Boiler #1 and Boiler #2, constructed in 2007, with a maximum capacity of 1.5 MMBtu per hour, each, exhausting to stack SS.
  - (2) One (1) natural gas-fired hot water heater, identified as HWH4, constructed in 2007, with a maximum capacity of 0.12 MMBtu per hour, exhausting to stack SS.
- (b) Natural gas-fired heating units located in Madeleva Hall:
  - (1) Two (2) natural gas-fired boilers, identified as B2 and B3, constructed in 2008, with a maximum capacity of 3.0 MMBtu per hour, each, exhausting to stack SM.
- (c) Natural gas-fired heating units located in the Dalloway building:
  - (1) One (1) natural gas-fired hot water heater, identified as HWH2, with a maximum capacity of 0.046 per hour, constructed in 2000, exhausting to stack SD.
  - (2) Two (2) natural gas-fired furnaces, identified as F1 and F1a, with a maximum capacity of 0.04 MMBtu per hour, each, constructed in 2000, exhausting to stack SD.
  - (3) One (1) natural gas-fired furnace, identified as F1b, with a maximum capacity of 0.12 MMBtu per hour, constructed in 2000, exhausting to stack SD.
  - (4) One (1) natural gas-fired fireplace, identified as FP1, with a maximum heat input capacity of 0.05 MMBtu per hour, constructed in 2000, exhausting to stack SD.

- (d) Natural gas-fired heating units located in the Welcome Center:
  - (1) One (1) natural gas-fired furnace, identified as F2, with a maximum capacity of 0.12 MMBtu per hour, constructed prior to 1980, exhausting to stack SW.
  - (2) One (1) natural gas-fired fireplace, identified as FP2, with a maximum heat input capacity of 0.05 MMBtu per hour, constructed in 2002, exhausting to stack SW.
- (e) Natural gas-fired heating units located in Student Center:
  - (1) One (1) natural gas-fired fireplace, identified as FP3, with a maximum heat input capacity of 0.05 MMBtu per hour, constructed in 2000, exhausting to stack SC.
- (f) Natural gas-fired heating units located in Opus Hall:
  - (1) Two (2) natural gas-fired hot water heaters, identified as HWH3 and HWH4, with a maximum capacity of 0.4 and 0.34 MMBtu per hour, respectively, constructed in 2005, exhausting to stack SO.
  - (2) One (1) natural gas-fired furnace, identified as F3, with a maximum capacity of 1.1 MMBtu per hour, constructed in 2005, exhausting to stack SO.
  - (3) One (1) natural gas-fired fireplace, identified as FP, with a maximum heat input capacity of 0.377 MMBtu per hour, constructed in 2005, exhausting to stack SO.
  - (4) One (1) natural gas-fired HeatNGlo unit, identified as HNG, with a maximum heat input capacity of 0.025 MMBtu per hour, constructed in 2005, exhausting to stack SO.
  - (5) One (1) natural gas-fired furnace, identified as F4, with a maximum heat input capacity of 0.26 MMBtu per hour, constructed in 2005, exhausting to stack SO.
  - (6) One (1) natural gas-fired Roof Top Unit, identified as RTU, with a maximum heat input capacity of 0.104 MMBtu per hour, constructed in 2005, exhausting to stack SO.
  - (7) One (1) natural gas-fired dryer, identified as D1, with a maximum heat input capacity of 0.025 MMBtu per hour, constructed in 2005, exhausting to stack SO.
- (g) One (1) natural gas-fired dryer, located in Holy Cross Hall, identified as D2, with a maximum heat input capacity of 0.25 MMBtu per hour, constructed in 2002, exhausting to stack SH.
- (h) Two (2) natural gas-fired dryers, located in Le Mans Hall, identified as D3 and D3a, with a maximum heat input capacity of 0.35 and 0.2 MMBtu per hour, respectively, constructed in 2002, exhausting to stack SL.
- (i) Two (2) natural gas-fired Roof Top Units, identified as RTU-1 and RTU-2, with a maximum heat input capacity of 0.52 MMBtu per hour, each, constructed in 2002, exhausting to stack S-1.
- (j) Two (2) natural gas-fired conditioner fans, identified as CF1 and CF2, with a maximum heat input capacity of 0.005 and 0.01 MMBtu per hour, respectively, constructed in 2002, exhausting to stack S-2.

- (k) One (1) natural gas-fired dryer, located in the Angela Athletic building, identified as D4, with a maximum heat input capacity of 0.09 MMBtu per hour, constructed in 2002, exhausting to stack SA.
- (l) Two (2) natural gas-fired Olympic Gas kilns, identified as K1 and K2, with a maximum heat input capacity of 0.12 MMBtu per hour, each, constructed in 2007, exhausting to stack S-3.
- (m) One (1) natural gas-fired Johnson Gas Appliance Co. Kiln, identified as K3, with a maximum heat input capacity of 0.8 MMBtu per hour, constructed in 1997, exhausting to stack S-3.
- (n) One (1) ceramic-sealing spray booth, identified as Spray 1, located in the Moreau Building, with a maximum capacity of 200 cfm per minute utilizing non-VOC, non-HAP paint, with a dry filter for particulate control, venting indoors.
- (o) One (1) sand blaster, identified as Sand 1, located in the Moreau Building, with a maximum capacity of less than 100 pounds per hour, venting to baghouse B-1.

The following condition shall be applicable:

1. 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)  
Pursuant to 326 IAC 6-2-4(a), particulate emissions for the two (2) natural gas-fired boilers located in Spes Unica Hall, identified as Boiler #1 and Boiler #2, and for the two (2) natural gas-fired boilers, located in Madeleva Hall, identified as B2 and B3, shall not exceed 0.6 lb/MMBtu, each.

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

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source. If you have any questions on this matter, please contact Summer Keown, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5175 or at 1-800-451-6027 (ext 4-5175).

Sincerely,



Alfred C. Dumauval, Ph. D., Section Chief  
Permits Branch  
Office of Air Quality

ACD/SJK

cc: File - St. Joseph County  
St. Joseph 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

<b>Source Name:</b>	<b>Saint Mary's College</b>
<b>Source Location:</b>	<b>Saint Mary's College, Notre Dame, IN 46556</b>
<b>County:</b>	<b>St. Joseph</b>
<b>SIC Code:</b>	<b>8221</b>
<b>Exemption No.:</b>	<b>141-28519-00567</b>
<b>Permit Reviewer:</b>	<b>Summer Keown</b>

On September 29, 2009, the Office of Air Quality (OAQ) received an application from Saint Mary's College related to the operation of natural gas-fired heaters and boilers at an existing college.

#### Existing Approvals

There have been no previous approvals issued to this source.

#### County Attainment Status

The source is located in St. Joseph County.

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

- (a) **Ozone Standards**  
 Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) 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 NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to ozone. St. Joseph County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**  
St. Joseph County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules was July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**  
St. Joseph 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.

### **Fugitive Emissions**

The fugitive emissions of criteria pollutants and hazardous air pollutants 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 Saint Mary's College on September 29, 2009, relating to the operation of natural gas-fired heaters and boilers at an existing college

The source consists of the following existing emission units:

- (a) **Natural gas-fired heating units located in Spes Unica Hall:**
- (1) Two (2) natural gas-fired boilers, identified as Boiler #1 and Boiler #2, constructed in 2007, with a maximum capacity of 1.5 MMBtu per hour, each, exhausting to stack SS.
  - (2) One (1) natural gas-fired hot water heater, identified as HWH4, constructed in 2007, with a maximum capacity of 0.12 MMBtu per hour, exhausting to stack SS.
- (b) **Natural gas-fired heating units located in Madeleva Hall:**
- (1) Two (2) natural gas-fired boilers, identified as B2 and B3, constructed in 2008, with a maximum capacity of 3.0 MMBtu per hour, each, exhausting to stack SM.
- (c) **Natural gas-fired heating units located in the Dalloway building:**
- (1) One (1) natural gas-fired hot water heater, identified as HWH2, with a maximum capacity of 0.046 per hour, constructed in 2000, exhausting to stack SD.
  - (2) Two (2) natural gas-fired furnaces, identified as F1 and F1a, with a maximum capacity of 0.04 MMBtu per hour, each, constructed in 2000, exhausting to stack SD.
  - (3) One (1) natural gas-fired furnace, identified as F1b, with a maximum capacity of 0.12 MMBtu per hour, constructed in 2000, exhausting to stack SD.
  - (4) One (1) natural gas-fired fireplace, identified as FP1, with a maximum heat input capacity of 0.05 MMBtu per hour, constructed in 2000, exhausting to stack SD.

- (d) Natural gas-fired heating units located in the Welcome Center:
  - (1) One (1) natural gas-fired furnace, identified as F2, with a maximum capacity of 0.12 MMBtu per hour, constructed prior to 1980, exhausting to stack SW.
  - (2) One (1) natural gas-fired fireplace, identified as FP2, with a maximum heat input capacity of 0.05 MMBtu per hour, constructed in 2002, exhausting to stack SW.
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- (f) Natural gas-fired heating units located in Opus Hall:
  - (1) Two (2) natural gas-fired hot water heaters, identified as HWH3 and HWH4, with a maximum capacity of 0.4 and 0.34 MMBtu per hour, respectively, constructed in 2005, exhausting to stack SO.
  - (2) One (1) natural gas-fired furnace, identified as F3, with a maximum capacity of 1.1 MMBtu per hour, constructed in 2005, exhausting to stack SO.
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  - (6) One (1) natural gas-fired Roof Top Unit, identified as RTU, with a maximum heat input capacity of 0.104 MMBtu per hour, constructed in 2005, exhausting to stack SO.
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- (g) One (1) natural gas-fired dryer, located in Holy Cross Hall, identified as D2, with a maximum heat input capacity of 0.25 MMBtu per hour, constructed in 2002, exhausting to stack SH.
- (h) Two (2) natural gas-fired dryers, located in Le Mans Hall, identified as D3 and D3a, with a maximum heat input capacity of 0.35 and 0.2 MMBtu per hour, respectively, constructed in 2002, exhausting to stack SL.
- (i) Two (2) natural gas-fired Roof Top Units, identified as RTU-1 and RTU-2, with a maximum heat input capacity of 0.52 MMBtu per hour, each, constructed in 2002, exhausting to stack S-1.
- (j) Two (2) natural gas-fired conditioner fans, identified as CF1 and CF2, with a maximum heat input capacity of 0.005 and 0.01 MMBtu per hour, respectively, constructed in 2002, exhausting to stack S-2.

- (k) One (1) natural gas-fired dryer, located in the Angela Athletic building, identified as D4, with a maximum heat input capacity of 0.09 MMBtu per hour, constructed in 2002, exhausting to stack SA.
- (l) Two (2) natural gas-fired Olympic Gas kilns, identified as K1 and K2, with a maximum heat input capacity of 0.12 MMBtu per hour, each, constructed in 2007, exhausting to stack S-3.
- (m) One (1) natural gas-fired Johnson Gas Appliance Co. Kiln, identified as K3, with a maximum heat input capacity of 0.8 MMBtu per hour, constructed in 1997, exhausting to stack S-3.
- (n) One (1) ceramic-sealing spray booth, identified as Spray 1, located in the Moreau Building, with a maximum capacity of 200 cfm per minute utilizing non-VOC, non-HAP paint, with a dry filter for particulate control, venting indoors.
- (o) One (1) sand blaster, identified as Sand 1, located in the Moreau Building, with a maximum capacity of less than 100 pounds per hour, venting to baghouse B-1.

**Enforcement Issues**

There are no pending enforcement actions related to this source.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – Exemption**

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

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10 *	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
Natural Gas Combustion	0.11	0.45	0.45	0.04	5.94	0.33	4.99	0.11	0.11 (hexane)
Furnaces	0.02	0.07	0.07	0.01	0.85	0.05	0.36	0.02	0.02 (hexane)
Spray Booth	1.50	1.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00
Sand Blaster	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total PTE of Entire Source</b>	<b>2.63</b>	<b>3.02</b>	<b>3.02</b>	<b>0.04</b>	<b>6.79</b>	<b>0.38</b>	<b>5.35</b>	<b>0.13</b>	<b>0.13 (hexane)</b>
Exemptions Levels	5	5	5	10	10	5 or 10	25	25	10
Registration Levels	25	25	25	25	25	25	100	25	10

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10 *	PM2.5	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO	Total HAPs	Worst Single HAP
negl. = 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".									

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) 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.

**Federal Rule Applicability Determination**

New Source Performance Standards (NSPS)

- (a) The requirements of the New Source Performance Standard for Small Industrial-Commercial-Institutional Steam Generating Units, 40 CFR 60, Subpart Dc (326 IAC 12), are not included in the permit for the four (4) natural gas-fired boilers, identified as Boiler #1 and Boiler #2 in Spes Unica Hall and Boilers B2 and B3, located in Madeleva Hall, since each of these units has a maximum capacity of less than 10 MMBtu per hour.
- (b) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

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

**State Rule Applicability Determination**

The following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)  
 Exemption applicability is discussed under the Permit Level Determination – Exemption section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
 The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

- (c) 326 IAC 2-6 (Emission Reporting)  
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 326 IAC 5-1 (Opacity Limitations)  
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
- (1) Opacity shall not exceed an average of 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 fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)  
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)  
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons per year.

#### Natural Gas Fired Water Heaters/Boilers

- (h) 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)  
Pursuant to 326 IAC 6-2-4(a), a source with a total indirect heat unit operating capacity of less than 10 MMBtu/hr, particulate emissions from indirect heating units may not exceed 0.6 lb/MMBtu. Therefore, particulate emissions shall not exceed 0.6 lb/MMBtu, each, for the two (2) natural gas-fired boilers located in Spes Unica Hall, identified as Boiler #1 and Boiler #2, and for the two (2) natural gas-fired boilers, located in Madeleva Hall, identified as B2 and B3.

#### Sand Blaster

- (i) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-2(b)(14), manufacturing processes with potential emissions less than 0.551 pound per hour are exempt from this rule. Therefore, this rule is not applicable to the sand blaster, identified as Sand 1.

### Spray Booth

- (j) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)  
Pursuant to 326 IAC 6-3-1(b)(15), surface coating manufacturing processes that use less than five (5) gallons per day are exempt from this rule. Therefore, this rule is not applicable to the spray booth, identified as Spray 1.
- (k) 326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)  
Pursuant to 326 IAC 8-7-2, this rule applies to sources located in Clark county that have the potential to emit VOC at 100 tons per year or greater, and to sources that have coating facilities that have the potential to emit ten (10) tons of VOC or greater per year. This spray booth utilizes non-VOC, non-HAP paint. Therefore, the spray booth is not subject to the conditions of 326 IAC 8-7.

<b>Conclusion and Recommendation</b>
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Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on September 29, 2009.

The operation of this source shall be subject to the conditions of the attached proposed Exemption No. 141-28519-00567. The staff recommends to the Commissioner that this Exemption be approved.

<b>IDEM Contact</b>
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- (a) Questions regarding this proposed permit can be directed to Summer Keown at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5175 or toll free at 1-800-451-6027 extension 4-5175.
- (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.idem.in.gov](http://www.idem.in.gov)

**Appendix A: Emissions Calculations**

**Company Name:** St. Mary's College  
**Address City IN Zip:** St. Mary's College, Notre Dame, IN 46556  
**Permit No.:** 141-28519-00567  
**Reviewer:** Summer Keown  
**Date:** November 17, 2009

**Uncontrolled Potential to Emit (tons per year)**

<b>Emissions Unit</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO<sub>2</sub></b>	<b>NOx</b>	<b>VOC</b>	<b>CO</b>	<b>Single HAP</b>	<b>Total HAPs</b>
Natural Gas Combustion	0.11	0.45	0.45	0.04	5.94	0.33	4.99	0.11 (hexane)	0.11
Furnaces	0.02	0.07	0.07	0.01	0.85	0.05	0.36	0.02 (hexane)	0.02
Spray Booth	1.50	1.50	1.50	0.00	0.00	0.00	0.00	0.00	0.00
Sand Blaster*	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>2.63</b>	<b>3.02</b>	<b>3.02</b>	<b>0.04</b>	<b>6.79</b>	<b>0.38</b>	<b>5.35</b>	<b>0.13 (hexane)</b>	<b>0.13</b>

**Controlled Potential to Emit (tons per year)**

<b>Emissions Unit</b>	<b>PM</b>	<b>PM10</b>	<b>PM2.5</b>	<b>SO<sub>2</sub></b>	<b>NOx</b>	<b>VOC</b>	<b>CO</b>	<b>Single HAP</b>	<b>Total HAPs</b>
Natural Gas Combustion	0.11	0.45	0.45	0.04	5.94	0.33	4.99	0.11 (hexane)	0.11
Furnaces	0.02	0.07	0.07	0.01	0.85	0.05	0.36	0.02 (hexane)	0.02
Spray Booth	0.08	0.08	0.08	0.00	0.00	0.00	0.00	0.00	0.00
Sand Blaster*	1.00	1.00	1.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Total</b>	<b>1.21</b>	<b>1.60</b>	<b>1.60</b>	<b>0.04</b>	<b>6.79</b>	<b>0.38</b>	<b>5.35</b>	<b>0.13 (hexane)</b>	<b>0.13</b>

\*Emissions from the sand blaster are negligible. IDEM, OAQ has agreed that potential particulate emissions for this unit are less than 1 ton per year.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only**

**Company Name:** St. Mary's College  
**Address City IN Zip:** St. Mary's College, Notre Dame, IN 46556  
**Permit Number:** 141-28519-00567  
**Reviewer:** Summer Keown  
**Date:** November 17, 2009

<u>Emission Units</u>	<u>Heat Input Capacity (MMBtu/hr)</u>
Boiler #1	1.5
Boiler #2	1.5
Hot Water Heater HWH4	0.12
Boiler B2	3.0
Boiler B3	3
Hot Water Heater HWH2	0.046
Hot Water Heaters HWH3 and HW1	0.74
Fireplaces FP, FP1, FP2, FP3	0.527
HeatNGlo unit HNG	0.025
RTU	0.104
Dryer D1	0.025
Dryer D2	0.25
Dryers D3 and D3a	0.55
RTU-1	0.52
RTU-2	0.52
Conditioner Fan CF1	0.005
Conditioner Fan CF2	0.01
Dryer D4	0.09
Kiln K1	0.12
Kiln K2	0.12
Kiln K3	0.8
<b>Total</b>	<b>13.572</b>

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
13.6	118.9

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100	5.5	84
				**see below		
Potential Emission in tons/yr	0.11	0.45	0.04	5.94	0.33	4.99

\*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

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

See page 3 for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
HAPs Emissions**

**Company Name:** St. Mary's College  
**Address City IN Zip:** St. Mary's College, Notre Dame, IN 46556  
**Permit Number:** 141-28519-00567  
**Reviewer:** Summer Keown  
**Date:** November 17, 2009

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.248E-04	7.133E-05	4.458E-03	1.070E-01	2.021E-04

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	2.972E-05	6.539E-05	8.322E-05	2.259E-05	1.248E-04

Methodology is the same as page 2.

**Total HAPs: 0.11**

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: Emissions Calculations  
Furnaces - Natural Gas Combustion Only**

**Company Name:** St. Mary's College  
**Address City IN Zip:** St. Mary's College, Notre Dame, IN 46556  
**Permit Number:** 141-28519-00567  
**Reviewer:** Summer Keown  
**Date:** November 17, 2009

<u>Emission Unit</u>	<u>Heat Input Capac</u>
Furnaces F1 and F1a	0.08
Furnace F1b	0.12
Furnace F2	0.12
Furnace F3	1.1
Furnace FP	0.377
Furnace F4	0.26
<b>Total</b>	<b>2.057</b>

Heat Input Capacity  
MMBtu/hr

Potential Throughput  
MMCF/yr

2.1

18.0

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	94	5.5	40
Potential Emission in tons/yr	0.02	0.07	0.01	0.85	0.05	0.36

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

**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

See page 5 for HAPs emissions calculations.

**Appendix A: Emissions Calculations  
Natural Gas Combustion Only  
Furnaces - HAPs Emissions**

**Company Name:** St. Mary's College  
**Address City IN Zip:** St. Mary's College, Notre Dame, IN 46556  
**Permit Number:** 141-28519-00567  
**Reviewer:** Summer Keown  
**Date:** November 17, 2009

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	1.892E-05	1.081E-05	6.757E-04	1.622E-02	3.063E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	4.505E-06	9.911E-06	1.261E-05	3.424E-06	1.892E-05

Methodology is the same as page 4.

**Total HAPs: 0.02**

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: Emissions Calculations  
Spray Booth 1**

**Company Name: St. Mary's College**  
**Address City IN Zip: St. Mary's College, Notre Dame, IN 46556**  
**Permit Number: 141-28519-00567**  
**Reviewer: Summer Keown**  
**Date: November 17, 2009**

Particulate emission calculations before controls:

200 cfm per minute x 0.02 gr/cfm = 4 gr/cfm/minute  
4 gr/cfm/minute x 60 min/hr x 8760 hr/yr = 21024000 gr/year  
21024000 gr/yr x 11 lbs/7000 gr = 3003 lbs/yr  
3003 lbs/yr x 1 ton/2000 lbs = **1.5015 tons/year**

Particulate emission calculations after controls:

3003 lbs/year \* ( 1 - 95% control efficiency) = **150.15 lbs/year**  
150.15 lbs/year x 1 ton/2000 lbs = **0.075 tons/year**

The spray booth utilizes non-VOC, non-HAP paint, with a dry filter for particulate control. Calculations were submitted by the applicant and verified by IDEM, OAQ.



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

*We Protect Hoosiers and Our Environment.*

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

*Thomas W. Easterly*  
**Commissioner**

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

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

TO: Dan Woods  
Saint Mary's College  
256 Studen Center  
Notre Dame, IN 46556

DATE: December 17, 2009

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

SUBJECT: Final Decision  
Exemption  
141-28519-00567

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:  
Richard Speller - VP Finance & Administration  
Nathaniel Black - ISES  
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07

# Mail Code 61-53

IDEM Staff	GHOTOPP 12/18/2009 St. Marvs College 141-28519-00567 Final		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	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
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2		Richard Speller VP - Finance & Admin St. Marys College 256 Student Ctr, St Marys Notre Dame IN 46556 (RO CAATS)										
3		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)										
4		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 (Affected Party)										
5		Mr. Wayne Falda South Bend Tribune 255 W Colfax Ave South Bend IN 46626 (Affected Party)										
6		South Bend City Council / Mayors Office 227 W. Jefferson Blvd. South Bend IN 46601 (Local Official)										
7		St. Joseph County Board of Commissioners 227 West Jefferson Blvd, South Bend IN 46601 (Local Official)										
8		St. Joseph County Health Department 227 W Jefferson Blvd, Room 825 South Bend IN 46601-1870 (Health Department)										
9		Nathaniel Black ISES 30723 Old US Highway 20 Elkhart IN 46514 (Consultant)										
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