



# 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: April 2, 2009

RE: Bristol-Myers Squibb Company / 129-27491-00021

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

## Notice of Decision: Approval - Effective Immediately

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 13-17-3-4 and 326 IAC 2, this approval is effective immediately, unless a petition for stay of effectiveness is filed and granted, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-7-3 require 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 Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, 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  
FNPER-MOD.dot 12/3/07



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Gregory A. Luff  
Bristol-Myers Squibb Company  
2400 West Lloyd Expressway  
Evansville, Indiana 47721

April 2, 2009

Re: 129-27491-00021  
Second Minor Revision to  
F129-23109-00021

Dear Gregory A. Luff:

Bristol-Myers Squibb Company was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F129-23109-00021 on October 13, 2006 for a stationary pharmaceutical packaging and research and development source located at State Road 62 East, Mount Vernon, Indiana 47620. On February 16, 2009, the Office of Air Quality (OAQ) received an application from the source requesting a revision to its operating permit for the addition of one (1) 400kW diesel-engine powered emergency generator. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Minor Permit Revision (MPR) procedures of 326 IAC 2-8-11.1(e). Pursuant to the provisions of 326 IAC 2-8-11.1, a minor permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

The following construction conditions are applicable to the proposed project:

1. General Construction Conditions  
The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).
2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.
3. Effective Date of the Permit  
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.
4. Pursuant to 326 IAC 2-1.1-9 (Revocation), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.
5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the minor permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jack Harmon, of my staff, at 317-233-4228 or 1-800-451-6027, and ask for extension 3-4228.

Sincerely,



Iryn Calilung, Section Chief  
Permits Branch  
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/jh

cc: File - Posey County  
Posey County Health Department  
U.S. EPA, Region V  
Compliance and Enforcement Branch  
Billing, Licensing and Training Section



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## NEW SOURCE REVIEW AND FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) RENEWAL OFFICE OF AIR QUALITY

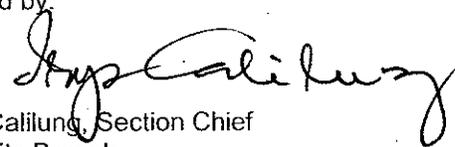
**Bristol - Myers Squibb Company**  
**State Route 62 East**  
**Mt. Vernon, Indiana 47620**

(herein known as the Permittee) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

**The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.**

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

|  |  |
|--|--|
| Operation Permit No.: F129-23109-00021   |  |
| Original issued by:<br>Nisha Sizemore, Chief<br>Permits Branch<br>Office of Air Quality  | Issuance Date: October 13, 2006<br>Expiration Date: October 13, 2016 |
| First Administrative Amendment No.: F129-23837-00021, issued December 11, 2006<br>Second Administrative Amendment No.: F129-25055-00021, issued August 15, 2007<br>First Minor Permit Revision No.: F129-25293-00021, issued October 11, 2007<br>Third Administrative Amendment No.: 129-25798-00021, issued January 18, 2008<br>Fourth Administrative Amendment No.: 129-26840-00021, issued August 27, 2008<br>Fifth Administrative Amendment No.: 129-27177-00021, issued December 15, 2008 |  |
| Sixth Administrative Amendment No.: 129-27491-00021<br>Issued by:<br><br>Iryn Calilung, Section Chief<br>Permits Branch<br>Office of Air Quality  | Issuance Date: April 2, 2009<br>Expiration Date: October 13, 2016    |

## TABLE OF CONTENTS

### SECTION A SOURCE SUMMARY

- A.1 General Information [326 IAC 2-8-3(b)]
- A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
- A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]
- A.4 Part 70 Permit Applicability [326 IAC 2-8-2]
- A.5 FESOP Applicability [326 IAC 2-8-2]

### SECTION B GENERAL CONDITIONS

- B.1 Definitions [326 IAC 2-8-1]
- B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]
- B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4] [326 IAC 2-8]
- B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5] [IC 13-15-3-6(a)]
- B.5 Term of Conditions [326 IAC 2-1.1-9.5]
- B.6 Enforceability [326 IAC 2-8-6]
- B.7 Severability [326 IAC 2-8-4(4)]
- B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
- B.9 Duty to Provide Information[326 IAC 2-8-4(5)(E)]
- B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]
- B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]
- B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]
- B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]
- B.14 Emergency Provisions [326 IAC 2-8-12]
- B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]
- B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]
- B.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]
- B.18 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]
- B.19 Permit Renewal [326 IAC 2-8-3(h)]
- B.20 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]
- B.21 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]
- B.22 Source Modification Requirement [326 IAC 2-8-11.1]
- B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC13-14-2-2][IC 13-17-3-2][IC13-30-3-1]
- B.24 Transfer of Ownership or Operational Control [326 IAC 2-8-10]
- B.25 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]
- B.26 Advanced Source Modification Approval[326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]
- B.27 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314][326 IAC 1-1-6]

### SECTION C SOURCE OPERATION CONDITIONS

#### Emission Limitations and Standards [326 IAC 2-8-4(1)]

- C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2]
- C.2 Overall Source Limit [326 IAC 2-8]
- C.3 Opacity [326 IAC 5-1]
- C.4 Open Burning [326 IAC 4-1][IC 13-17-9]
- C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]
- C.6 Fugitive Dust Emissions [326 IAC 6-4]
- C.7 Stack Height [326 IAC 1-7]
- C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61 Subpart M]

#### Testing Requirements [326 IAC 2-8-4(3)]

- C.9 Performance Testing [326 IAC 3-6]

**Compliance Requirements [326 IAC 2-1.1-11]**

C.10 Compliance Requirements [326 IAC 2-1.1-11]

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]  
C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]  
C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]  
C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]  
C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

C.17 General Record Keeping Requirements[326 IAC 2-8-4(3)] [326 IAC 2-8-5]  
C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

**Stratospheric Ozone Protection**

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

**SECTION D.1 FACILITY OPERATION CONDITIONS**

**Boilers**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.1.1 Particulate [326 IAC 6-2-3]  
D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]  
D.1.3 Fuel Usage Limitation [326 IAC 2-8-4]  
D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

D.1.5 Sulfur Dioxide Emissions and Sulfur Content

**Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]**

D.1.6 Visible Emissions Notations

**Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]**

D.1.7 Record Keeping Requirements  
D.1.8 Reporting Requirements

**New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]**

D.1.9 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]  
D.1.10 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc]

**SECTION D.2 FACILITY OPERATION CONDITIONS**

**Incinerator**

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

D.2.1 FESOP Hazardous Air Pollutant Limit [326 IAC 2-8]  
D.2.2 Incinerators [326 IAC 4-2-2]  
D.2.3 Carbon monoxide Emission Limits [326 IAC 9-1-2]  
D.2.4 Pathological Waste Exemption [326 IAC 12-1] [40 CFR 60, Subpart Ec] [40 CFR 60, Subpart DDDD]

- Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]
- D.2.5 Record Keeping Requirements
- D.2.6 Reporting Requirements

### **SECTION D.3 FACILITY OPERATION CONDITIONS**

#### **Dry Material Operations**

##### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.3.1 Particulate [326 IAC 6-3-2]

##### **Compliance Determination Requirements**

- D.3.2 Particulate Matter (PM) [326 IAC 2-8-5(a)(4)]

### **SECTION D.4 FACILITY OPERATION CONDITIONS**

#### **Insignificant Activities**

##### **Emission Limitations and Standards [326 IAC 2-8-4(1)]**

- D.4.1 Particulate [326 IAC 6-3-2]
- D.4.2 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(e)]
- D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]
- D.4.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

### **SECTION E.1 FACILITY OPERATION CONDITIONS**

#### **Insignificant Activities**

##### **New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]**

- E.1.1 General Provisions Relating to NSPS [326 IAC 12-1][40 CFR Part 60, Subpart A]
- E.1.2 Standards of Performance for Small Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart III]

**Certification Form**

**Emergency Occurrence Form**

**Semi-Annual Natural Gas Fired Boiler Certification**

**FESOP Report**

**Quarterly Deviation and Compliance Monitoring Report Form**

**Attachment A – New Source Performance Standards (NSPS) 40 CFR Part 60, Subpart III**

## SECTION A

## SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

### A.1 General Information [326 IAC 2-8-3(b)]

---

The Permittee owns and operates a stationary pharmaceutical packaging and research and development source.

|                              |  |
|------------------------------|--|
| Source Address:              | State Route 62 East, Mt. Vernon, IN 47620  |
| Mailing Address:             | 2400 West Lloyd Expressway, Evansville, IN 47721-0001  |
| General Source Phone Number: | (812) 429-7906   |
| SIC Code:                    | 2834   |
| County Location:             | Posey  |
| Source Location Status:      | Attainment for all criteria pollutants   |
| Source Status:               | Federally Enforceable State Operating Permit Program<br>Minor Source, under PSD<br>Minor Source, Section 112 of the Clean Air Act<br>Not 1 of 28 Source Categories |

### A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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This stationary source consists of the following emission units and pollution control devices:

- (a) Two (2) natural gas fired boilers installed in 1970, identified as S-1 and S-2, each with a maximum heat input rate of 30.64 million (MM) British thermal units (Btu) per hour, and exhausting through stacks S-1 and S-2, respectively. Boilers S-1 and S-2 use No. 2 fuel oil as back-up fuel.
- (b) One (1) natural gas fired boiler installed in 2005, identified as S-27, with a maximum heat input rate of 60.8 MMBtu per hour, and exhausting through stack S-27. Boiler S-27 uses No. 2 fuel oil as back-up fuel.
- (c) One (1) pathological waste incinerator, installed in 1996, identified as S-4, with a maximum waste charging capacity of 350 lbs/hr, using natural gas as auxiliary fuel in the primary combustion chamber with a maximum heat input capacity of 1.5 MMBtu/hr, and exhausting through stack S-4.
- (d) One (1) tablet coating operation identified as S-30, consisting of single pan tablet coating machine and three (3) coating suspension prep tanks, with a maximum production capacity of 880 lbs of tablets per 36-hour batch, equipped with a packed-bed scrubber for HCl fume and particulate control, and exhausting through stack S-30.

### A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

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This stationary source also includes the following insignificant activities which are specifically regulated, as defined in 326 IAC 2-7-1(21):

- (a) Other categories with emissions below insignificant thresholds (i.e. PM emissions less than 5 tons per year):
  - (1) One (1) Granulator and one (1) Glatt 120 fluid-bed dryer for aqueous wet granulations located in Building 122, Room 1119, with a maximum capacity of 98

- lbs/hr. Granulator controlled by Torit fabric filter/dust collector #29692 and fluid-bed dryer controlled by Torit fabric filter/dust collector #29693. [326 IAC 6-3-2]
- (2) Tablet core press machine located in Building 121, Room 116c, with a maximum capacity of 80 lbs/hr, controlled by Torit fabric filter/dust collector #29698. [326 IAC 6-3-2]
  - (3) Tablet coating unit (1-pan coater) located in Building 121, Room 116c, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector #34323. [326 IAC 6-3-2]
  - (4) Dry material weighing, mixing and blending operations located in Building 121, Room 1019, identified as Small Weigh Room, with a maximum capacity of 1237 lbs/hr, and controlled by Torit fabric/dust collector #29704. [326 IAC 6-3-2]
  - (5) Tablet core press machine and room exhaust located in Building 121, Room 1014, with a maximum capacity of 80 lbs/hr, and controlled by Mac fabric filter/dust collector #29706. [326 IAC 6-3-2]
  - (6) Tablet coating unit (1-pan coater) located in Building 121, Room 1023, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector #29705. [326 IAC 6-3-2]
  - (7) Pharmaceutical packaging line 3 identified as S-6 (Building 122), with a maximum capacity of 442 lbs/hr and controlled by a dust collector for PM identified as #29687. [326 IAC 6-3-2]
  - (8) Pharmaceutical packaging lines 7, 8, 9, 11, 12, and 14 identified as S-6 (Building 124), with a maximum capacity of 3236 lbs/hr. Packaging lines 7, 8, 9, 11, and 14 are controlled by a common dust collector for PM identified as #29703 and line 12 is controlled by a separate dust collector for PM identified as #116720. [326 IAC 6-3-2]
- (b) Cold solvent cleaning station (2 square feet). [326 IAC 8-3-2] [326 IAC 8-3-5]
  - (c) Cold solvent cleaning station (3.75 square feet). [326 IAC 8-3-2] [326 IAC 8-3-5]
  - (d) Emergency generators as follows:
    - (1) Two (2) emergency diesel powered generators, identified as S-3 and S-7, with heat input capacities of 4.4 and 0.7 MMBtu/hr, and exhausting through stacks S-3 and S-7, respectively.
    - (2) One (1) 700 KW diesel powered Caterpillar emergency generator, with a heat input capacity of 5 MMBtu/hr.
    - (3) One (1) diesel fired emergency generator, identified as E-1, with a maximum heat input rating of 2.5 MMBtu/hr and exhausting through stack S-29.
    - (4) One (1) 400kW diesel engine-powered emergency generator, approved for construction in 2009, identified as Building 210 Cooler Emergency Generator, with a maximum capacity of 400kW, and exhausting to Stack S-31.
  - (e) Natural gas fired combustion sources with heat input equal to or less than 10 million British thermal units per hour consisting of:
    - (1) One (1) natural gas fired emergency generator, identified as Caterpillar Model 25F3, rated at 0.45 MMBtu/hr.

- (2) One (1) natural gas fired emergency generator, identified as Onan Model 100GGHD, rated at 1.24 MMBtu/hr.
  - (3) One (1) natural gas fired emergency generator, identified as Onan Model 60ENA, identified as 0.72 MMBtu/hr.
  - (4) One (1) natural gas fired hot water heater rated at 0.197 MMBtu/hr.
  - (5) One (1) natural gas fired trane unit heater rated at 0.045 MMBtu/hr.
  - (6) Two (2) natural gas fired air treatment units, identified as # 1 and 2, each rated at 3.75 MMBtu/hr.
  - (7) Two (2) natural gas fired air treatment units, identified as # 3 and 4, each rated at 2.5 MMBtu/hr.
  - (8) One (1) natural gas fired heater in battery charging area, rated at 0.5 MMBtu/hr.
  - (9) One (1) natural gas fired heater in office area, rated at 0.35 MMBtu/hr.
  - (10) One (1) natural gas fired heater in cafeteria, rated at 0.25 MMBtu/hr.
- (f) The following VOC storage containers:
- (1) One (1) 20,000 gallon aboveground storage tank containing No. 2 fuel oil.
  - (2) One (1) 1,130 gallon aboveground storage tank containing gasoline.
  - (3) One (1) 1,130 gallon aboveground storage tank containing diesel fuel.
  - (4) One (1) 300 gallon aboveground storage tank containing diesel fuel.
  - (5) One (1) 250 gallon aboveground storage tank containing diesel fuel.
  - (6) One (1) 650 gallon aboveground storage tank containing diesel fuel.
  - (7) One (1) 500 gallon aboveground storage tank containing diesel fuel.
- (g) Light vehicle traffic on paved roads.
- (h) Research and development operations.
- (i) A laboratory as defined in 326 IAC 2-7-1(21)(D).
- (j) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

A.4 Part 70 Permit Applicability [326 IAC 2-8-2]

This stationary source is required to have a Part 70 permit by 326 IAC 2-7-2 (Applicability) because:

- (a) It is a major source, as defined in 326 IAC 2-7-1(22).

A.5 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

## SECTION B

## GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-8-1]

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Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

### B.2 Revocation of Permits [326 IAC 2-1.1-9(5)]

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Pursuant to 326 IAC 2-1.1-9(5)(Revocation of Permits), the Commissioner may revoke this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

### B.3 Affidavit of Construction [326 IAC 2-5.1-3(h)] [326 IAC 2-5.1-4] [326 IAC 2-8]

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This document shall also become the approval to operate pursuant to 326 IAC 2-5.1-4 and 326 IAC 2-8 when prior to the start of operation, the following requirements are met:

- (a) The attached Affidavit of Construction shall be submitted to the Office of Air Quality (OAQ), verifying that the emission units were constructed as proposed in the application or the permit. The emission units covered in this permit may begin operating on the date the Affidavit of Construction is postmarked or hand delivered to IDEM if constructed as proposed.
- (b) If actual construction of the emission units differs from the construction proposed in the application, the source may not begin operation until the permit has been revised pursuant to 326 IAC 2 and an Operation Permit Validation Letter is issued.
- (c) The Permittee shall attach the Operation Permit Validation Letter received from the Office of Air Quality (OAQ) to this permit.

### B.4 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

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- (a) This permit, F129-23109-00021, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect.

### B.5 Term of Conditions [326 IAC 2-1.1-9.5]

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Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

### B.6 Enforceability [326 IAC 2-8-6]

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Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

**B.7 Severability [326 IAC 2-8-4(4)]**

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The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

**B.8 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]**

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This permit does not convey any property rights of any sort or any exclusive privilege.

**B.9 Duty to Provide Information [326 IAC 2-8-4(5)(E)]**

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(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

(b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

**B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]**

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IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

**B.11 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]**

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(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

**B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]**

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(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year 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) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

The annual compliance certification report shall include the following:

- (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
- (2) The compliance status;
- (3) Whether compliance was continuous or intermittent;
- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
- (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:
  - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
  - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
  - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.
- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;

- (2) The permitted facility was at the time being properly operated;
- (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
- (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality,  
Compliance and Enforcement Branch), or  
Telephone No.: 317-233-0178 (ask for Compliance and Enforcement Branch)  
Facsimile No.: 317-233-6865

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile 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

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
  - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
  - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
    - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
    - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.15 Prior Permits Superseded [326 IAC 2-1.1-9.5]**

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- (a) All terms and conditions of permits established prior to F129-23109-00021 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised, or
  - (3) deleted.
- (b) All previous registrations and permits are superseded by this permit.

**B.16 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

**B.17 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]**

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- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported quarterly according to Section C - General Reporting Requirements using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

**B.18 Permit Modification, Reopening, Revocation and Reissuance, or Termination**  
[326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

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- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ, determines any of the following:
  - (1) That this permit contains a material mistake.
  - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
  - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

**B.19 Permit Renewal [326 IAC 2-8-3(h)]**

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- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
  - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.20 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.21 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
  - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
  - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);

(4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) Emission Trades [326 IAC 2-8-15(c)]  
The Permittee may trade emissions increases and decreases at in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) Alternative Operating Scenarios Federally Enforceable State Operating Permit  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.22 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.23 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC13-30-3-1]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.24 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:  
  
Indiana Department of Environmental Management  
Permit Administration and Support Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
  
The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.25 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ, the applicable fee is due April 1 of each year.
- (b) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.26 Advanced Source Modification Approval[326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

**B.27 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]**

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For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

**SECTION C**

**SOURCE OPERATION CONDITIONS**

Entire Source

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

**C.2 Overall Source Limit [326 IAC 2-8]**

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also render the requirements of 326 IAC 2-2 (PSD) not applicable;
- (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
- (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

**C.3 Opacity [326 IAC 5-1]**

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 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.

**C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]**

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The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

**C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]**

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The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

**C.6 Fugitive Dust Emissions [326 IAC 6-4]**

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The Permittee 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 (Fugitive Dust Emissions).

**C.7 Stack Height [326 IAC 1-7]**

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The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

**C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]**

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- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
Compliance and Enforcement Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**  
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**  
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**  
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

### **Testing Requirements [326 IAC 2-8-4(3)]**

#### **C.9 Performance Testing [326 IAC 3-6]**

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- (a) Compliance testing on new emissions units shall be conducted within 60 days after achieving maximum production rate, but no later than 180 days after initial start-up, if specified in Section D of this approval. All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted 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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

**Compliance Requirements [326 IAC 2-1.1-11]**

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

**Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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Any monitoring or testing required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63, or other approved methods as specified in this permit.

C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

**C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]**

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If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

**C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]**

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- (a) Upon detecting an excursion or exceedance, the Permittee shall restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
  - (1) initial inspection and evaluation;
  - (2) recording that operations returned to normal without operator action (such as through response by a computerized distribution control system); or
  - (3) any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
  - (1) monitoring results;
  - (2) review of operation and maintenance procedures and records;
  - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall maintain the following records:
  - (1) monitoring data;
  - (2) monitor performance data, if applicable; and
  - (3) corrective actions taken.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]**

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- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**C.17 General Record Keeping Requirements[326 IAC 2-8-4(3)] [326 IAC 2-8-5]**

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

**C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]**

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- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted 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
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is a member of IDEM's Environmental Stewardship Program (ESP), the Permittee may report in the manner below for any reporting requirement except Section B - Deviations from Permit Requirements, that allows reporting per this paragraph:
  - (1) Each report shall be submitted semi-annually, covering the period from April 1 to September 30 or October 1 to March 31.
  - (2) Each report, shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
  - (3) Each report shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
  - (4) The Permittee shall use the attached reporting forms or their equivalent.
  - (5) Each report shall be submitted to the address listed in paragraph (b) of this condition.

If the Permittee is removed from or withdraws from the ESP, the Permittee shall begin quarterly reporting according to paragraphs (a) through (e) of this condition and the condition(s) requiring the reporting. If the Permittee is removed from or withdraws from the ESP during the second quarter of a semi-annual period, the Permittee shall submit all reports for the first quarter of the period within thirty (30) days of the removal or withdrawal.

### **Stratospheric Ozone Protection**

#### **C.19 Compliance with 40 CFR 82 and 326 IAC 22-1**

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Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR 82.156.
- (b) Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

**SECTION D.1**

**EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

- (a) Two (2) natural gas fired boilers installed in 1970, identified as S-1 and S-2, each with a maximum heat input rate of 30.64 million (MM) British thermal units (Btu) per hour, and exhausting through stacks S-1 and S-2, respectively. Boilers S-1 and S-2 use No. 2 fuel oil as back-up fuel.
- (b) One (1) natural gas fired boiler installed in 2005, identified as S-27, with a maximum heat input rate of 60.8 MMBtu per hour, and exhausting through stack S-27. Boiler S-27 uses No. 2 fuel oil as back-up fuel.

Under NSPS, Subpart Dc, boiler S-27 is considered an existing affected source because the construction of this unit commenced after June 9, 1989.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.1.1 Particulate [326 IAC 6-2-3]**

- (a) Pursuant to 326 IAC 6-2-3 (b) (Particulate Emission Limitations for Sources of Indirect Heating), PM emissions from Boilers S-1 and S-2, which were existing and in operation on or before June 8, 1972, shall be limited to 0.6 pounds of particulate matter per million British thermal units heat input based on the following equation:

$$Pt = \frac{C \times a \times h}{76.5 \times Q^{0.75} \times N^{0.25}}$$

where

- C = 50 u/m<sup>3</sup>
- Pt = emission rate limit (lbs/mmBtu)
- Q = total source heat input capacity (mmBtu/hr)
- N = number of stacks
- a = plume rise factor (0.67)
- h = stack height in feet. If a number of stacks of different heights exist, average stack height to represent "N" stacks shall be calculated by weighing each stack height with its particulate matter emission rate as follows:

$$h = \frac{\sum_{i=1}^N H_i \times p_{a_i} \times Q}{N}$$

$$\sum_{i=1}^N p_{a_i} \times Q$$

where: Pa = the actual controlled emissions rate in lb/mmBtu using the emission factor form AP-42 or stack test data. Stacks constructed after January 1, 1971, shall be credited with GEP stack height only. GEP stack height shall be calculated as specified in 326 IAC 1-7.

- (b) Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating), PM emissions from Boiler (S-27) shall be limited to 0.312 pounds of particulate matter per million British thermal units heat input based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input  
Q = Total source maximum operating capacity rating in MMBtu/hr heat input.

**D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1] [326 IAC 7-2-1]**

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Pursuant to 326 IAC 7-1.1-2(a)(3) (Sulfur dioxide emission limitations) the SO<sub>2</sub> emissions from the Boilers S-1, S-2, and S-27, rated at 30.64, 30.64, and 60.8 MMBtu/hr, respectively, shall not exceed five tenths (0.5) pounds per MMBtu heat input for distillate oil combustion.

**D.1.3 Fuel Usage Limitation [326 IAC 2-8-4]**

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Pursuant to 326 IAC 2-8-4(1), the following limits shall apply:

- (a) The total input of No. 2 fuel oil and No. 2 fuel oil equivalents to the two (2) 30.64 MMBtu/hr boilers (S-1 and S-2), and one (1) 60.8 MMBtu/hr boiler (S-27), shall be limited to less than 4,230,000 U.S. gallons per twelve (12) consecutive month period with compliance determined at the end of each month. This usage limit is required to limit the potential to emit sulfur dioxide (SO<sub>2</sub>) from the source to less than 100 tons per 12 consecutive month period, with compliance determined at the end of each month.
- (b) Sulfur content of No. 2 distillate fuel oil shall not exceed 0.3% by weight.
- (c) For purposes of determining compliance with paragraph (a) of this condition, the following shall apply:

Every one (1) million cubic feet of natural gas burned shall be equivalent to 14 gallons of No. 2 distillate fuel oil burned based on SO<sub>2</sub> emissions, such that the total usage of No. 2 distillate fuel oil with a maximum sulfur content of 0.3% and No. 2 oil equivalent input does not exceed the limit specified.

Compliance with this condition makes the requirements of 326 IAC 2-7 (Part 70) not applicable to the source.

**D.1.4 Preventive Maintenance Plan [326 IAC 2-8-4(9)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities.

**Compliance Determination Requirements**

**D.1.5 Sulfur Dioxide Emissions and Sulfur Content**

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- (a) Compliance shall be determined utilizing one of the following options.
- (1) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the sulfur dioxide emissions do not exceed five-tenths (0.5) pounds per million Btu heat input by:
- (A) Providing vendor analysis of fuel delivered, if accompanied by a vendor certification; or

- (B) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
- (i) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
  - (ii) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.
- (2) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boilers S-1, S-2, and S-27 using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to any of the methods specified in (1) or (2) above shall not be refuted by evidence of compliance pursuant to the other method.

### **Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]**

#### **D.1.6 Visible Emissions Notations**

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- (a) Visible emission notations of the Boilers S-1, S-2, and S-27 stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere when combusting fuel oil. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

### **Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

#### **D.1.7 Record Keeping Requirements**

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- (a) To document compliance with Conditions D.1.2 and D.1.3, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the SO<sub>2</sub> emission limit and fuel oil equivalent usage limit established in Conditions D.1.2 and D.1.3.
  - (1) Calendar dates covered in the compliance determination period;
  - (2) Actual fuel oil usage and fuel oil equivalents for the month and twelve (12) consecutive month period;

- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period, the natural gas fired boiler certification does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.
- (b) To document compliance with Condition D.1.6, the Permittee shall maintain daily records of visible emission notations of the boiler S-1, boiler S-2, and boiler S-27 stack exhausts while combusting fuel oil.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.8 Reporting Requirements

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- (a) If the Permittee is a member of IDEM's Environmental Stewardship Program (ESP) program, the Permittee may, submit reports summarizing the information to document compliance with Condition D.1.3 according to the provisions of paragraph (f) of Section C General Reporting Requirements.

Otherwise, a quarterly summary of the information to document compliance with Condition D.1.3 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "Authorized Individual" as defined by 326 IAC 2-1-1-1.

- (b) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1.

### **New Source Performance Standards (NSPS) Requirements [326 IAC 12-1]**

#### D.1.9 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]

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The provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the 60.8 MMBtu per hour heat input boiler (S-27) described in this section except when otherwise specified in 40 CFR Part 60, Subpart Dc.

#### D.1.10 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc]

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Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of the National Source Performance Standards for Small Industrial-Commercial- Institutional Steam Generating Units, as specified as follows.

### **§ 60.40c Applicability and delegation of authority.**

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, § 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

(c) Steam generating units which meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO<sub>2</sub>) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

(d) Any temporary change to an existing steam generating unit for the purpose of conducting combustion research is not considered a modification under § 60.14.

(g) Any facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not covered by this subpart.

### **§ 60.41c Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

*Annual capacity factor* means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

*Coal* means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388-77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR--see Sec. 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

*Cogeneration steam generating unit* means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

*Combined cycle system* means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

*Combustion research* means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the

atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

*Conventional technology* means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrosulfurization technology.

*Distillate oil* means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference -- see § 60.17).

*Dry flue gas desulfurization technology* means a sulfur dioxide (SO<sub>2</sub>) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

*Duct burner* means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

*Emerging technology* means any SO<sub>2</sub> control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

*Federally enforceable* means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Fluidized bed combustion technology* means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

*Fuel pretreatment* means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

*Heat input* means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

*Heat transfer medium* means any material that is used to transfer heat from one point to another point.

*Maximum design heat input capacity* means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

*Natural gas* means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835-86, 87, 91, or 97, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference -- see § 60.17).

*Noncontinental area* means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

*Oil* means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

*Potential sulfur dioxide emission rate* means the theoretical SO<sub>2</sub> emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

*Process heater* means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

*Residual oil* means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396-78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference -- see § 60.17).

*Steam generating unit* means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

*Steam generating unit operating day* means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

*Wet flue gas desulfurization technology* means an SO<sub>2</sub> control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

*Wet scrubber system* means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO<sub>2</sub>.

*Wood* means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

#### **§ 60.42c Standard for sulfur dioxide.**

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO<sub>2</sub> in excess of 215 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(f) Reduction in the potential SO<sub>2</sub> emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO<sub>2</sub> emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO<sub>2</sub> control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

(g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.

(h) For affected facilities listed under paragraphs (h)(1), (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

(1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).

(i) The SO<sub>2</sub> emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

#### **§ 60.43c Standard for particulate matter.**

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

#### **§ 60.44c Compliance and performance test methods and procedures for sulfur dioxide.**

(a) Except as provided in paragraphs (g) and (h) of this section and in § 60.8(b), performance tests required under § 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in § 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

(g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under § 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under § 60.46c(d)(2).

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under § 60.48c(f)(1), (2), or (3), as applicable.

#### **§ 60.45c Compliance and performance test methods and procedures for particulate matter.**

(c) Units that burn only oil containing no more than 0.5 weight percent sulfur or liquid or gaseous fuels with potential sulfur dioxide emission rates of 230 ng/J (0.54 lb/MMBtu) heat input or less are not required to conduct emissions monitoring if they maintain fuel supplier certifications of the sulfur content of the fuels burned.

### **§ 60.46c Emission monitoring for sulfur dioxide**

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO<sub>2</sub> standards based on fuel supplier certification, as described under § 60.48c(f) (1), (2), or (3), as applicable.

### **§ 60.47c Emission monitoring for particulate matter.**

(c) Units that burn only oil that contains no more than 0.5 weight percent sulfur or liquid or gaseous fuels with potential sulfur dioxide emission rates of 230 ng/J (0.54 lb/MMBtu) heat input or less are not required to conduct PM emissions monitoring if they maintain fuel supplier certifications of the sulfur content of the fuels burned.

### **§ 60.48c Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by § 60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under § 60.42c, or § 60.43c.

(3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.

(4) Notification if an emerging technology will be used for controlling SO<sub>2</sub> emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(d) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO<sub>2</sub> emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.43c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO<sub>2</sub> emission rate (ng/J or lb/million Btu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO<sub>2</sub> emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the

affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

(f) Fuel supplier certification shall include the following information:

(1) For distillate oil:

(i) The name of the oil supplier; and

(ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in § 60.41c.

(2) For residual oil:

(i) The name of the oil supplier;

(ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;

(iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and

(iv) The method used to determine the sulfur content of the oil.

(g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

(h) The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under § 60.42c or § 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30<sup>th</sup> day following the end of each reporting period.

## SECTION D.2

## EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (c) One (1) pathological waste incinerator, installed in 1996, identified as S-4, with a maximum waste charging capacity of 350 lbs/hr, using natural gas as auxiliary fuel in the primary combustion chamber with a maximum heat input capacity of 1.5 MMBtu/hr, and exhausting through stack S-4.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.2.1 FESOP Hazardous Air Pollutant Limit [326 IAC 2-8]

Pursuant to 326 IAC 2-8, the incinerator charge capacity shall not exceed 537.29 tons per twelve (12) consecutive month period with compliance determined at the end of each month. The HCl emissions shall be less than or equal to 33.5 lb/ton of charge. Compliance with this production limit shall limit source wide single HAP (as Hydrochloric acid, HCl) and total HAPs emissions to less than 10 tons per twelve (12) consecutive month period, respectively.

#### D.2.2 Incinerators [326 IAC 4-2-2]

Pursuant to 326 IAC 4-2-2 (Incinerators: Requirements), the natural gas fired incinerator (S-4) shall comply with the following:

- (a) The incinerator 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 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 in paragraph (c) of this condition.
  - (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 requirements of (1) through (5) are not met, then the Permittee shall stop charging the incinerator until adjustments are made that address the underlying cause of the deviation.
- (b) An incinerator is exempt from paragraph (a)(5) of this condition if subject to a more stringent particulate matter emission limit in 40 CFR 52 Subpart P, State Implementation Plan for Indiana.
- (c) A Permittee developing an operation and maintenance plan pursuant to paragraph (a)(4) of this condition must comply with the following:
- (1) The operation and maintenance plan must be designed to meet the particulate matter emission limitation specified in paragraph (a)(5) of this condition 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 Permittee shall notify the department, in writing, thirty (30) days after the operation and maintenance plan is initially developed pursuant to this section.
- (d) The Permittee shall make the manufacturer's specifications or the operation and maintenance plan available to the department upon request.

**D.2.3 Carbon Monoxide Emission Limits [326 IAC 9-1-2]**

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Pursuant to 326 IAC 9-1-2(a)(3), the Permittee shall not operate incinerator (S-4) unless the waste gas stream is burned in one (1) of the following:

- (a) Direct-flame afterburner.
- (b) Secondary chamber.

**D.2.4 Pathological Waste Exemption [326 IAC 12-1] [40 CFR 60, Subpart Ec] [40 CFR 60, Subpart DDDD]**

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The incinerator (S-4) shall only burn the pathological waste except for natural gas as an auxiliary fuel. Compliance with this requirement renders the incinerator (S-4) not subject the requirements of 40 CFR 60, Subpart E, Subpart Ec, Subpart DDDD, and 40 CFR 63, Subpart EEE.

**Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]**

**D.2.5 Record Keeping Requirements**

- 
- (a) To document compliance with Conditions D.2.1, D.2.2, and D.2.3, the Permittee shall maintain records of the quantities and types of wastes burned in the incinerator (charge rate). The records shall be complete and sufficient to establish compliance with HAPs and particulate emission limitations set forth in this permit.
  - (b) To document compliance with Condition D.2.3, in addition to the recordkeeping required in (a), the Permittee shall document the period of time when the pathological waste is combusted in the incinerator. Pursuant to 40 CFR 60, Subpart Ec and Subpart DDDD, these records shall be maintained on a calendar quarter basis.
  - (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.6 Reporting Requirements

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- (a) If the Permittee is a member of IDEM's Environmental Stewardship Program (ESP) program, the Permittee may, submit reports summarizing the information to document compliance with Condition D.2.1 according to the provisions of paragraph (f) of Section C General Reporting Requirements.

Otherwise, a quarterly summary of the information to document compliance with Condition D.2.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "Authorized Individual" as defined by 326 IAC 2-1-1-1.

**SECTION D.3**

**EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

- (d) One (1) tablet coating operation identified as S-30, consisting of single pan tablet coating machine and three (3) coating suspension prep tanks, with a maximum production capacity of 880 lbs of tablets per 36-hour batch, equipped with a packed-bed scrubber for HCl fume and particulate control, and exhausting through stack S-30.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-8-4(1)]**

**D.3.1 Particulate [326 IAC 6-3-2]**

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Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from Emission unit S-30 shall be limited to 0.551 lbs/hr when operating at a process weight rate of equal to or less than 100 lb/hr.

**Compliance Determination Requirements**

**D.3.2 Particulate Matter (PM) [326 IAC 2-8-5(a)(4)]**

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In order to comply with Condition D.3.1, the packed-bed scrubber for PM control shall be in operation at all times when Emission unit S-30 is in operation.

**SECTION D.4**

**EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

Insignificant Activities:

- (a) Other categories with emissions below insignificant thresholds (i.e. PM emissions less than 5 tons per year):
  - (1) One (1) Granulator and one (1) Glatt 120 fluid-bed dryer for aqueous wet granulations located in Building 122, Room 1119, with a maximum capacity of 98 lbs/hr. Granulator controlled by Torit fabric filter/dust collector #29692 and fluid-bed dryer controlled by Torit fabric filter/dust collector #29693. [326 IAC 6-3-2]
  - (2) Tablet core press machine located in Building 121, Room 116c, with a maximum capacity of 80 lbs/hr, controlled by Torit fabric filter/dust collector #29698. [326 IAC 6-3-2]
  - (3) Tablet coating unit (1-pan coater) located in Building 121, Room 116c, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector #34323. [326 IAC 6-3-2]
  - (4) Dry material weighing, mixing and blending operations located in Building 121, Room 1019, identified as Small Weigh Room, with a maximum capacity of 1237 lbs/hr, and controlled by Torit fabric/dust collector #29704. [326 IAC 6-3-2]
  - (5) Tablet core press machine and room exhaust located in Building 121, Room 1014, with a maximum capacity of 80 lbs/hr, and controlled by Mac fabric filter/dust collector #29706. [326 IAC 6-3-2]
  - (6) Tablet coating unit (1-pan coater) located in Building 121, Room 1023, with a maximum capacity of 50 lbs/hr, and controlled by Torit fabric filter/dust collector #29705. [326 IAC 6-3-2]
  - (7) Pharmaceutical packaging line 3 identified as S-6 (Building 122), with a maximum capacity of 442 lbs/hr and controlled by a dust collector for PM identified as #29687. [326 IAC 6-3-2]
  - (8) Pharmaceutical packaging lines 7, 8, 9, 11, 12, and 14 identified as S-6 (Building 124), with a maximum capacity of 3236 lbs/hr. Packaging lines 7, 8, 9, 11, and 14 are controlled by a common dust collector for PM identified as #29703 and line 12 is controlled by a separate dust collector for PM identified as #116720. [326 IAC 6-3-2]
- (b) Cold solvent cleaning station (2 square feet). [326 IAC 8-3-2] [326 IAC 8-3-5]
- (c) Cold solvent cleaning station (3.75 square feet). [326 IAC 8-3-2] [326 IAC 8-3-5]

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

### Emission Limitations and Standards [326 IAC 2-8-4(1)]

#### D.4.1 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the following Emission units shall be limited as follows:

| Emission Unit                                 | Process Weight Rate (lb/hr) | Allowable PM Emissions (326 IAC 6-3-2) (lb/hr) |
|---|-----------------------------|--|
| Pharmaceutical Packaging Lines (Building 122) | 442                         | 1.49   |
| Pharmaceutical Packaging Lines (Building 124) | 3236                        | 4.55   |
| Small Weigh Room                              | 1237                        | 2.97   |

The pounds per hour limitations were calculated using the following equation:

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$

where E = rate of emission in pounds per hour;  
and P = process weight rate in tons per hour.

#### D.4.2 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) pounds per hour [326 IAC 6-3-2(e)]

Pursuant to 326 IAC 6-3-2(e), the allowable particulate emissions rate from any process not already regulated by 326 IAC 6-1 or any New Source Performance Standard, and which has a maximum process weight rate less than 100 pounds per hour shall not exceed 0.551 pounds per hour.

These include the Granulator, Glatt 120 fluid bed dryer, Tablet Coater (Building 121, Room 116c), Tablet Coater (1023), Tablet Core Press (Building 121, Room 116c), and Tablet Core Press (Building 121, Room 1014).

#### D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for Immersion Cleaning Operation constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.4.4 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

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- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
    - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent

(20%) of the waste solvent by weight could evaporate.

**SECTION E.1**

**FACILITY OPERATION CONDITIONS**

**Emissions Unit Description:**

Insignificant Activities:

- (d) (4) One (1) 400kW diesel-engine powered emergency generator, approved for construction in 2009, identified as Building 210 Cooler Emergency Generator, with a maximum capacity of 400kW, and exhausting to Stack S-31.

(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)

**New Source Performance Standards (NPSR Requirements [326 IAC 12-1**

**E.1.1 General Provisions Relating to NPSR [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

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The provisions of 40 CFR Part 60, Subpart A-General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the 400kW diesel-engine powered emergency generator described in this section except when otherwise specified in 40 CFR Part 60, Subpart IIII.

**E.1.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII]**

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Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of the New Source Performance standards for Stationary Compression Ignition Internal Combustion Engines, as specified in the following:

- (1) 40 CFR 60.4200(a)(2)
- (2) 40 CFR 60.4205
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(a), (b)
- (5) 40 CFR 60.4208(a), (g)
- (6) 40 CFR 60.4209
- (7) 40 CFR 60.4210
- (8) 40 CFR 60.4211
- (9) 40 CFR 60.4212
- (10) 40 CFR 60.4214

See Appendix A of this permit for the standards listed above.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
CERTIFICATION**

Source Name: Bristol - Myers Squibb Company  
Source Address: State Route 62 East, Mt. Vernon, IN 47620  
Mailing Address: 2400 West Lloyd Expressway, Evansville, IN 47721-0001  
FESOP No.: 129-23109-00021

**This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) \_\_\_\_\_
- Report (specify) \_\_\_\_\_
- Notification (specify) \_\_\_\_\_
- Affidavit (specify) \_\_\_\_\_
- Other (specify) \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
EMERGENCY OCCURRENCE REPORT**

Source Name: Bristol - Myers Squibb Company  
Source Address: State Route 62 East, Mt. Vernon, IN 47620  
Mailing Address: 2400 West Lloyd Expressway, Evansville, IN 47721-0001  
FESOP No.: 129-23109-00021

**This form consists of 2 pages**

**Page 1 of 2**

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| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none"><li>• The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance and Enforcement Branch); and</li><li>• The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16</li></ul> |
|--|

If any of the following are not applicable, mark N/A

|   |
|---|
| Facility/Equipment/Operation:                       |
| Control Equipment:                                  |
| Permit Condition or Operation Limitation in Permit: |
| Description of the Emergency:                       |
| Describe the cause of the Emergency:                |

If any of the following are not applicable, mark N/A

Page 2 of 2

|   |
|---|
| Date/Time Emergency started:  |
| Date/Time Emergency was corrected:  |
| Was the facility being properly operated at the time of the emergency?    Y    N<br>Describe:   |
| Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>x</sub> , CO, Pb, other:   |
| Estimated amount of pollutant(s) emitted during emergency:  |
| Describe the steps taken to mitigate the problem:   |
| Describe the corrective actions/response steps taken:   |
| Describe the measures taken to minimize emissions:  |
| If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value: |

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Bristol - Myers Squibb Company  
Source Address: State Route 62 East, Mt. Vernon, IN 47620  
Mailing Address: 2400 West Lloyd Expressway, Evansville, IN 47721-0001  
FESOP No.: 129-23109-00021

Natural Gas Only  
 Alternate Fuel burned  
From: \_\_\_\_\_ To: \_\_\_\_\_

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Phone:

Date:

A certification by the responsible official as defined by 326 IAC 2-7-1(34) is required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP Report**

Source Name: Bristol - Myers Squibb Company  
Source Address: State Route 62 East, Mt. Vernon, IN 47620  
Mailing Address: 2400 West Lloyd Expressway, Evansville, IN 47721-0001  
FESOP No.: 129-23109-00021  
Facility: Incinerator (S-4)  
Parameter: Incinerator charge  
Limit: Charge limit of 537.29 tons per 12 consecutive month period with compliance determined at the end of each month

YEAR: \_\_\_\_\_

| Month   | Column 1   | Column 2           | Column 1 + Column 2 |
|---------|------------|--------------------|---------------------|
|         | This Month | Previous 11 Months | 12 Month Total      |
| Month 1 |            |                    |                     |
| Month 2 |            |                    |                     |
| Month 3 |            |                    |                     |

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**FESOP Report**

Source Name: Bristol - Myers Squibb Company  
Source Address: State Highway 62 East, Mt. Vernon, Indiana 47620  
Mailing Address: 2400 West Lloyd Expressway, Evansville, Indiana 47721  
FESOP No.: 129-23109-00021  
Facility: Two (2) 30.64 MMBtu per hour boilers (S-1 and S-2), and one (1) 60.8 MMBtu per hour boiler (S-27)  
Parameter: No. 2 fuel oil and No. 2 fuel oil equivalent usage limit to limit SO<sub>2</sub> emissions  
Limit: Total input of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalents to boilers (S-1, S-2, and S-27) shall be limited to 4,230,000 U.S. gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. This is equivalent to SO<sub>2</sub> emissions of 90.10 tons per year from boilers S-1, S-2, and S-27 and less than 100 tons per year from the entire source.

YEAR: \_\_\_\_\_

| Month   | Column 1  | Column 2  | Column 1 + Column 2   |
|---------|---|---|---|
|         | No. 2 Distillate Fuel Oil and Equivalent Usage This Month | No. 2 Distillate Fuel Oil and Equivalent Usage Previous 11 Months | 12 Month Total No. 2 Distillate Fuel Oil and Equivalent Usage |
| Month 1 |   |   |   |
| Month 2 |   |   |   |
| Month 3 |   |   |   |

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.

Deviation has been reported on: \_\_\_\_\_

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
OFFICE OF AIR QUALITY  
COMPLIANCE AND ENFORCEMENT BRANCH**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Bristol - Myers Squibb Company  
Source Address: State Route 62 East, Mt. Vernon, IN 47620  
Mailing Address: 2400 West Lloyd Expressway, Evansville, IN 47721-0001  
FESOP No.: 129-23109-00021

Months: \_\_\_\_\_ to \_\_\_\_\_ Year: \_\_\_\_\_

Page 1 of 2

|   |                               |
|---|-------------------------------|
| <p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p> |                               |
| <input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.  |                               |
| <input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD  |                               |
| <b>Permit Requirement</b> (specify permit condition #)  |                               |
| <b>Date of Deviation:</b>   | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>  |                               |
| <b>Probable Cause of Deviation:</b>   |                               |
| <b>Response Steps Taken:</b>  |                               |
| <b>Permit Requirement</b> (specify permit condition #)  |                               |
| <b>Date of Deviation:</b>   | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>  |                               |
| <b>Probable Cause of Deviation:</b>   |                               |
| <b>Response Steps Taken:</b>  |                               |

|  |                               |
|--|-------------------------------|
| <b>Permit Requirement</b> (specify permit condition #) |                               |
| <b>Date of Deviation:</b>                              | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>                           |                               |
| <b>Probable Cause of Deviation:</b>                    |                               |
| <b>Response Steps Taken:</b>                           |                               |
| <b>Permit Requirement</b> (specify permit condition #) |                               |
| <b>Date of Deviation:</b>                              | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>                           |                               |
| <b>Probable Cause of Deviation:</b>                    |                               |
| <b>Response Steps Taken:</b>                           |                               |
| <b>Permit Requirement</b> (specify permit condition #) |                               |
| <b>Date of Deviation:</b>                              | <b>Duration of Deviation:</b> |
| <b>Number of Deviations:</b>                           |                               |
| <b>Probable Cause of Deviation:</b>                    |                               |
| <b>Response Steps Taken:</b>                           |                               |

Submitted by: \_\_\_\_\_

Title / Position: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

## ATTACHMENT A

### **New Source Performance Standards (NSPS)**

#### **Stationary Compression Ignition Internal Combustion Engines (40 CFR Part 60, Subpart IIII)**

**For**

**Bristol-Myers Squibb Company  
State Road 62 East  
Mount Vernon, Indiana 47620**

#### **§ 60.4200 *Am I subject to this subpart?***

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

#### ***Emission Standards for Manufacturers***

#### **§ 60.4201 *What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?***

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to

the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

**§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

**§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?**

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the useful life of the engines.

**Emission Standards for Owners and Operators**

**§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NO<sub>x</sub>) emissions by 90 percent or more, or limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

**§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NO<sub>x</sub> emissions by 90 percent or more, or limit the emissions of NO<sub>x</sub> in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

**§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

**Fuel Requirements for Owners and Operators**

**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

**§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?**

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

**Fuel Requirements for Owners and Operators**

**§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?**

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

**Other Requirements for Owners and Operators**

**§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?**

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

(h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

**§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?**

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

**Compliance Requirements**

**§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?**

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

### ***§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?***

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO<sub>x</sub> and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO<sub>x</sub> and PM emissions;

(iii) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) Emergency stationary ICE may be operated for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

### **Testing Requirements for Owners and Operators**

#### **§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

**§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?**

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

$C_i$  = concentration of  $\text{NO}_x$  or PM at the control device inlet,

$C_o$  = concentration of  $\text{NO}_x$  or PM at the control device outlet, and

R = percent reduction of  $\text{NO}_x$  or PM emissions.

(2) You must normalize the  $\text{NO}_x$  or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen ( $\text{O}_2$ ) using Equation 3 of this section, or an equivalent percent carbon dioxide ( $\text{CO}_2$ ) using the procedures described in paragraph (d)(3) of this section.

$$C_{adj} = C_d \frac{5.9}{20.9 - \% O_2} \quad (\text{Eq. 3})$$

Where:

$C_{adj}$  = Calculated NO<sub>x</sub> or PM concentration adjusted to 15 percent O<sub>2</sub>.

$C_d$  = Measured concentration of NO<sub>x</sub> or PM, uncorrected.

5.9 = 20.9 percent O<sub>2</sub> – 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

%O<sub>2</sub> = Measured O<sub>2</sub> concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O<sub>2</sub> and CO<sub>2</sub> concentration is measured in lieu of O<sub>2</sub> concentration measurement, a CO<sub>2</sub> correction factor is needed. Calculate the CO<sub>2</sub> correction factor as described in paragraphs (d)(3)(i) through (iii) of this section.

(i) Calculate the fuel-specific  $F_o$  value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

$$F_o = \frac{0.209 F_d}{F_c} \quad (\text{Eq. 4})$$

Where:

$F_o$  = Fuel factor based on the ratio of O<sub>2</sub> volume to the ultimate CO<sub>2</sub> volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O<sub>2</sub>, percent/100.

$F_d$  = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup> / J (dscf/10<sup>6</sup> Btu).

$F_c$  = Ratio of the volume of CO<sub>2</sub> produced to the gross calorific value of the fuel from Method 19, dsm<sup>3</sup> / J (dscf/10<sup>6</sup> Btu).

(ii) Calculate the CO<sub>2</sub> correction factor for correcting measurement data to 15 percent O<sub>2</sub>, as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

$X_{CO_2}$  = CO<sub>2</sub> correction factor, percent.

5.9 = 20.9 percent O<sub>2</sub> – 15 percent O<sub>2</sub>, the defined O<sub>2</sub> correction value, percent.

(iii) Calculate the NO<sub>x</sub> and PM gas concentrations adjusted to 15 percent O<sub>2</sub> using CO<sub>2</sub> as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

$C_{adj}$  = Calculated  $NO_x$  or PM concentration adjusted to 15 percent  $O_2$ .

$C_d$  = Measured concentration of  $NO_x$  or PM, uncorrected.

% $CO_2$  = Measured  $CO_2$  concentration, dry basis, percent.

(e) To determine compliance with the  $NO_x$  mass per unit output emission limitation, convert the concentration of  $NO_x$  in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_d$  = Measured  $NO_x$  concentration in ppm.

$1.912 \times 10^{-3}$  = Conversion constant for ppm  $NO_x$  to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 8})$$

Where:

ER = Emission rate in grams per KW-hour.

$C_{adj}$  = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

### **Notification, Reports, and Records for Owners and Operators**

#### **§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?**

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

## Indiana Department of Environmental Management Office of Air Quality

### Technical Support Document (TSD) for a Minor Permit Revision to a Federally Enforceable State Operating Permit (FESOP)

#### Source Description and Location

|                                 |   |
|---------------------------------|---|
| Source Name:                    | Bristol-Myers Squibb Company              |
| Source Location:                | State Route 62 East, Mt. Vernon, IN 47620 |
| County:                         | Posey                                     |
| SIC Code:                       | 2834                                      |
| Operation Permit No.:           | F129-23109-00021                          |
| Operation Permit Issuance Date: | October 13, 2006                          |
| Minor Permit Revision No.:      | 129-27491-00021                           |
| Permit Reviewer:                | Jack Harmon                               |

On February 16, 2009, the Office of Air Quality (OAQ) has received an application from Bristol-Myers Squibb Company related to a modification request to an existing stationary pharmaceutical packaging and research and development source.

#### Existing Approvals

The source was issued FESOP Operating Permit No. F129-23109-00021 on October 13, 2006. The source has since received the following approvals:

- (a) First Administrative Amendment No.: 129-23837-00021, issued December 11, 2006;
- (b) Second Administrative Amendment No.: 129-25055-00021, issued August 15, 2007;
- (c) First Minor Permit Revision No.: 129-25293-00021, issued October 11, 2007;
- (d) Third Administrative Amendment No.: 129-25798-00021, issued January 18, 2008;
- (e) Fourth Administrative Amendment No.: 129-26840-00021, issued August 27, 2008;
- (f) Fifth Administrative Amendment No.: 129-27177-00021, issued December 15, 2008

#### County Attainment Status

The source is located in Posey County.

| Pollutant        | Designation   |
|------------------|---|
| SO <sub>2</sub>  | Better than national standards.   |
| CO               | Unclassifiable or attainment effective November 15, 1990.   |
| O <sub>3</sub>   | Unclassifiable or attainment effective June 15, 2004, 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>Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which 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. Posey 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

Posey 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<sup>th</sup>, 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

Posey 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**

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

**Status of the Existing Source**

The table below summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits:

| Process/Units                     | PM           | PM10         | SO2          | NOx          | VOC         | CO           | Total HAPs   | Worst Single HAP   |
|-----------------------------------|--------------|--------------|--------------|--------------|-------------|--------------|--------------|--------------------|
| Nat. Gas Boilers S-1, S-2         | 1.02         | 4.06         | 0.32         | 53.47        | 2.94        | 44.92        | 1.01         | 0.962 (Hexane)     |
| No.2 Oil Boilers S-1, S-2         | 4.23         | 4.23         | 90.10        | 42.30        | 0.42        | 10.58        | 0.01         | 0.0080 (Selenium)  |
| Diesel Emergency Generators       | 0.98         | 0.98         | 0.91         | 13.89        | 1.10        | 2.99         | 0.02         | 0.0081 (Propylene) |
| Incinerator                       | 1.90         | 1.90         | 0.70         | 0.80         | 0.80        | 2.70         | 9.13         | 8.99 (HCl)         |
| Tablet Coating                    | 10.12        | 10.12        | 0.00         | 0.00         | 0.00        | 0.00         | 0.02         | 0.02 (HCl)         |
| Insignificant Activities          | 27.10        | 27.54        | 0.05         | 7.78         | 0.46        | 6.53         | 0.15         | 0.14 (Hexane)      |
| <b>Total PTE of Entire Source</b> | <b>45.35</b> | <b>48.83</b> | <b>91.76</b> | <b>75.94</b> | <b>5.30</b> | <b>57.14</b> | <b>10.33</b> | <b>9.01 (HCl)</b>  |
| Title V Major Source Thresholds   | NA           | 100          | 100          | 100          | 100         | 100          | 25           | 10                 |
| PSD Major Source Thresholds       | 250          | 250          | 250          | 250          | 250         | 250          | 250          | NA                 |

Notes:

- (1) Boilers S-1, S-2, and S-27 use natural gas as the primary fuel and No. 2 fuel oil as backup. The total represents the worst case emissions for each pollutant.
- (2) SO<sub>2</sub> emissions reflect the limited emissions from Boilers S-1, S-2, and S-27 based on the No.2 fuel oil usage limitation of 4,230,000 gallons per year, to render the requirement of the 326 IAC 2-7 not applicable.
- (3) Emissions from the Incinerator (S-7) reflect the limited emissions based on the maximum charge limit of 537.29 tons per year, to render the requirements of 326 IAC 2-7 not applicable.

- (4) PM/PM10 emissions from emission units S-9, S-10, and S-13 through S-15 reflect the controlled emissions using a baghouse with control efficiency of 95%. PM/PM10 emissions from emission unit S-30 reflect the controlled emissions using a baghouse with control efficiency of 99%.
  - (5) Emergency generator qualify as insignificant activities based on maximum 500 hour of operation per year.
  - (6) Insignificant activities consist of natural gas fired combustion units, cold cleaner stations, and pharmaceutical weighing, mixing, and coating.
- (a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
  - (c) This existing source is not a major source of HAPs, as defined in 40 CFR 63.41, because the unlimited potential to emit HAPs are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

**Description of Proposed Revision**

The Office of Air Quality (OAQ) has reviewed an application, submitted by Bristol-Myers Squibb Company on February 16, 2009, relating to a request to modify its existing Federally Enforceable State Operating Permit (FESOP) issued on October 13, 2006. The source wishes to construct a new 400kW diesel-engine powered Emergency Generator.

The following is a list of the new emission unit and pollution control device(s):

- (a) One (1) 400kW diesel-engine powered emergency generator, approved for construction in 2009, identified as Building 210 Cooler Emergency Generator, with a maximum capacity of 400kW, and exhausting to Stack S-31.

**Enforcement Issues**

There are no pending enforcement actions related to this revision.

**Emission Calculations**

See Appendix A of this TSD for detailed emission calculations.

**Permit Level Determination – FESOP Revision**

The following table is used to determine the appropriate permit level under 326 IAC 2-8.11.1. This table reflects the PTE before controls of the proposed revision. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

| Units Shown are Tons Per Year (tpy)              |      |      |      |      |      |      |            |                             |
|--|------|------|------|------|------|------|------------|-----------------------------|
| Process / Emission unit                          | PM   | PM10 | SO2  | NOx  | VOC  | CO   | Total HAPs | Worst Single HAP (list HAP) |
| One (1) Diesel-powered emergency generator 400kW | 0.32 | 0.32 | 0.30 | 4.57 | 0.36 | 0.98 | 0.005      | 0.0002 (Propylene)          |
| Total PTE of Proposed Revision                   | 0.32 | 0.32 | 0.30 | 4.57 | 0.36 | 0.98 | 0.005      | 0.0002                      |

This FESOP is being revised through a FESOP Minor Permit revision pursuant to 326 IAC 2-8-11.1(d)(6), This change is subject to a new source performance standard (NSPS) because the revision involves the construction of a diesel-engine powered emergency generator, which is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart III). Pursuant to 326 IAC 2-8-11.1 (d)(6), any change that is subject to a Reasonably Available Control Technology (RACT), a new source performance standard(NSPS), or a national emission standard for hazardous air pollutants (NESHAP), shall be processed as a minor permit revision. The rule further states that the applicant shall acknowledge the requirement to comply with the RACT, NSPS, or NESHAP.

**PTE of the Entire Source After Issuance of the FESOP Revision**

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit. The source's potential to emit is based on the emission units included in the original FESOP and the new emission unit being added in this revision permit.

| <b>Potential to Emit After Control</b> |             |             |              |              |             |              |              |                    |
|--|-------------|-------------|--------------|--------------|-------------|--------------|--------------|--------------------|
| Process/Units                          | PM          | PM10        | So2          | NOx          | VOC         | CO           | Total HAPs   | Worst Single HAP   |
| Nat. Gas Boilers S-1, S-2              | 1.02        | 4.06        | 0.32         | 53.47        | 2.94        | 44.92        | 1.01         | 0.962 (Hexane)     |
| No.2 Oil Boilers S-1, S-2              | 4.23        | 4.23        | 90.10        | 42.30        | 0.42        | 10.58        | 0.01         | 0.0080 (Selenium)  |
| Diesel Emergency Generators            | 1.28        | 1.28        | 1.21         | 18.47        | 1.47        | 3.98         | 0.02         | 0.0108 (Propylene) |
| Incinerator                            | 1.90        | 1.90        | 0.70         | 0.80         | 0.80        | 2.70         | 9.13         | 8.99 (HCl)         |
| Tablet Coating                         | 0.10        | 0.10        | 0.00         | 0.00         | 0.00        | 0.00         | 0.02         | 0.02 (HCl)         |
| Insignificant Activities               | 0.42        | 0.86        | 0.05         | 7.78         | 0.46        | 6.53         | 0.15         | 0.14 (Hexane)      |
| <b>Total PTE of Entire Source</b>      | <b>7.95</b> | <b>8.39</b> | <b>92.06</b> | <b>71.37</b> | <b>5.66</b> | <b>58.12</b> | <b>10.33</b> | <b>9.01 (HCl)</b>  |
| Title V Major Source Thresholds        | NA          | 100         | 100          | 100          | 100         | 100          | 25           | 10                 |
| PSD Major Source Thresholds            | 250         | 250         | 250          | 250          | 250         | 250          | 250          | NA                 |

- (a) **FESOP Status**  
 This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP).
  
- (b) **PSD Minor Source**  
 This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

### Federal Rule Applicability Determination

#### New Source Performance Standards (NSPS)

- (a) This source is subject to the New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII, because the source is the owner/operator of Stationary Compression Ignition Internal Combustions Engines constructed after July 11, 2005.

The Emission Units subject to this rule include the following:

- (1) One (1) 400kW diesel-engine powered emergency generator, approved for construction in 2009, identified as Building 210 Cooler Emergency Generator, with a maximum capacity of 400kW, and exhausting to Stack S-31.

Applicable portions of the NSPS are the following:

- (1) 40 CFR 60.4200(a)(2)
- (2) 40 CFR 60.4205
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(a), (b)
- (5) 40 CFR 60.4208(a), (g)
- (6) 40 CFR 60.4209
- (7) 40 CFR 60.4210
- (8) 40 CFR 60.4211
- (9) 40 CFR 60.4212
- (10) 40 CFR 60.4214

Nonapplicable portions of the NSPS will not be included in the permit.

The other four (4) diesel-engine powered emergency generators at the source, identified at S-3, S-7, E-1, and Caterpillar, were constructed prior to July 11, 2005, rendering 40 CFR Part 60, Subpart IIII, not applicable.

The requirements of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated as 326 IAC 12-1, apply to the source except as otherwise specified in 40 CFR 60, Subpart IIII.

- (b) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included for this proposed revision.

#### National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included for this proposed revision.

#### Compliance Assurance Monitoring (CAM)

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the potential to emit of the source is limited to 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 proposed revision:

- (a) 326 IAC 2-8-4 (FESOP)

This revision to an existing Title V minor stationary source will not change the minor status, because the potential to emit criteria pollutants from the entire source will still be limited to less than the Title V major source threshold levels. Therefore, the source will still be subject to the provisions of 326 IAC 2-8 (FESOP). See PTE of the Entire Source After Issuance of the FESOP Revision Section above.

- (b) 326 IAC 2-2 (Prevention of Significant Deterioration(PSD))  
This modification to an existing PSD minor stationary source will not change the PSD minor status, because the potential to emit of all attainment regulated pollutants from the entire source will continue to be less than the PSD major source threshold levels. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply. See PTE of the Entire Source After Issuance of the FESOP Revision Section above.
- (c) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))  
The proposed revision is not subject to the requirements of 326 IAC 2-4.1, since the unlimited potential to emit of HAPs from the new emission unit is less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs.
- (d) 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.
- (e) 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.
- (f) 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.
- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)  
The proposed revision is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from the new unit is less than twenty-five (25) tons per year.
- (h) There are no other 326 IAC 8 Rules that are applicable to the unit.
- (i) 326 IAC 12 (New Source Performance Standards)  
See Federal Rule Applicability Section of this TSD.
- (j) 326 IAC 20 (Hazardous Air Pollutants)  
See Federal Rule Applicability Section of this TSD.

|  |
|--|
| <b>Compliance Determination, Monitoring and Testing Requirements</b> |
|--|

The existing compliance requirements will not change as a result of this revision. The source shall

continue to comply with the applicable requirements and permit conditions as contained in FESOP No: 129-23109-00021, issued on October 13, 2006.

**Proposed Changes**

(a) The following changes listed below are due to the proposed revision. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

Change No. 1:

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(1)](1)]

...

(d) ...

- (4) **One (1) 400kW diesel-engine powered emergency generator, approved for construction in 2009, identified as Building 210 Cooler Emergency Generator, with a maximum capacity of 400kW, and exhausting to Stack S-31.**

Change No. 2:

**SECTION E.1 FACILITY OPERATION CONDITIONS**

**Emissions Unit Description:**

**Insignificant Activities:**

- (d) (4) **One (1) 400kW diesel-engine powered emergency generator, approved for construction in 2009, identified as Building 210 Cooler Emergency Generator, with a maximum capacity of 400kW, and exhausting to Stack S-31.**

**New Source Performance Standards (NSPS Requirements [326 IAC 12-1**

**E.1.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR Part 60, Subpart A]**

The provisions of 40 CFR Part 60, Subpart A-General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the 400kW diesel-engine powered emergency generator described in this section except when otherwise specified in 40 CFR Part 60, Subpart IIII.

**E.1.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [40 CFR Part 60, Subpart IIII]**

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of the New Source Performance standards for Stationary Compression Ignition Internal Combustion Engines, as specified in the following:

- (1) 40 CFR 60.4200(a)(2)
- (2) 40 CFR 60.4205
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(a), (b)
- (5) 40 CFR 60.4208(a), (g)
- (6) 40 CFR 60.4209
- (7) 40 CFR 60.4210
- (8) 40 CFR 60.4211
- (9) 40 CFR 60.4212
- (10) 40 CFR 60.4214

Change No. 3:

**ATTACHMENT A**

**Standards of Performance for Stationary Compression Ignition Internal Combustion Engines ([40 CFR Part 60, Subpart III]) are shown in new Attachment A of the Permit.**

|                                      |
|--------------------------------------|
| <b>Conclusion and Recommendation</b> |
|--------------------------------------|

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 February 16, 2009.

The construction and operation of this proposed revision shall be subject to the conditions of the attached proposed FESOP Minor Revision No. 129-27491-00021. The staff recommends to the Commissioner that this FESOP Minor Revision be approved.

|                     |
|---------------------|
| <b>IDEM Contact</b> |
|---------------------|

- (a) Questions regarding this proposed permit can be directed to Jack Harmon 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) (233-4228) or toll free at 1-800-451-6027 extension 3-4228.
- (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: Emission Calculations

**Company Name:** Bristol-Myers Squibb Company  
**Address City IN Zip:** State Route 62 East, Mt. Vernon, IN 47620  
**FESOP MPR No.:** 129-27491-00021  
**Plt ID:** 129-00021  
**Reviewer:** Jack Harmon  
**Date:** 03/19/09

### Uncontrolled/Unlimited Potential Emissions (tons/year)

| Emissions Generating Activity |   |   |   |             |                        |                              |             |
|-------------------------------|---|---|---|-------------|------------------------|------------------------------|-------------|
| Pollutant                     | Natural Gas Combustion<br>Boilers S-1 and S-2 | No. 2 Oil Combustion<br>Boilers S-1 and S-2 | Emergency Generators<br>Diesel Combustion | Incinerator | Tablet Coating<br>S-30 | Insignificant<br>Activities* | TOTAL       |
| PM                            | 1.02  | 7.64  | 1.30                                      | 3.80        | 10.12                  | 27.10                        | 49.96       |
| PM10                          | 4.06  | 7.64  | 1.30                                      | 3.80        | 10.12                  | 27.54                        | 50.40       |
| SO2                           | 0.32  | 162.70                                      | 1.21                                      | 1.40        | 0.00                   | 0.05                         | 165.36      |
| NOx                           | 53.47   | 76.39                                       | 18.47                                     | 1.60        | 0.00                   | 7.78                         | 104.24      |
| VOC                           | 2.94  | 2.94  | 1.47                                      | 1.60        | 0.00                   | 0.46                         | 6.47        |
| CO                            | 44.92   | 44.92                                       | 3.98                                      | 5.50        | 0.00                   | 6.53                         | 60.93       |
| total HAPs                    | 1.01  | 0.03  | 0.02                                      | 18.61       | 0.64                   | 0.15                         | 19.44       |
| worst case single HAP         | (Hexane) 0.962                                | (Selenium) 0.0080                           | (Propylene) 0.0108                        | (HCl) 18.34 | (HCl) 0.64             | (Hexane) 0.14                | (HCl) 18.98 |

Total emissions based on rated capacity at 8,760 hours/year, except emergency generators, which were based on 500 hours/year.

### Controlled/Limited Potential Emissions (tons/year)

| Emissions Generating Activity |   |   |   |                |                        |                              |            |
|-------------------------------|---|---|---|----------------|------------------------|------------------------------|------------|
| Pollutant                     | Natural Gas Combustion<br>Boilers S-1 and S-2 | No. 2 Oil Combustion<br>Boilers S-1 and S-2 | Emergency Generators<br>Diesel Combustion | Incinerator*** | Tablet Coating<br>S-30 | Insignificant<br>Activities* | TOTAL      |
| PM                            | 1.02  | 4.23  | 1.30                                      | 1.90           | 0.10                   | 0.42                         | 7.95       |
| PM10                          | 4.06  | 4.23  | 1.30                                      | 1.90           | 0.10                   | 0.86                         | 8.39       |
| SO2                           | 0.32  | 90.10                                       | 1.21                                      | 0.70           | 0.00                   | 0.05                         | 92.06      |
| NOx                           | 53.47   | 42.30                                       | 18.47                                     | 0.80           | 0.00                   | 7.78                         | 69.35      |
| VOC                           | 2.94  | 0.42  | 1.47                                      | 0.80           | 0.00                   | 0.46                         | 3.15       |
| CO                            | 44.92   | 10.58                                       | 3.98                                      | 2.70           | 0.00                   | 6.53                         | 23.79      |
| total HAPs                    | 1.01  | 0.01  | 0.02                                      | 9.13           | 0.02                   | 0.15                         | 9.33       |
| worst case single HAP         | (Hexane) 0.962                                | (Selenium) 0.0044                           | 0.01                                      | (HCl) 8.99     | (HCl) 0.02             | (Hexane) 0.14                | (HCl) 9.01 |

Total emissions based on rated capacity at 8,760 hours/year, after control, except emergency generators, which were based on 500 hours/year.

\* Insignificant activities include the natural gas fired combustion units, cold cleaner stations and pharmaceutical weighing, mixing, coating and packaging lines.

\*\*Boilers 1 and 2 use natural gas as the primary fuel and # 2 fuel oil as back up fuel. The total represents the worst case emissions for each pollutant.

\*\*\* Incinerator controlled emissions are based on limited process capacity of 122.67 lbs/hr. This process limit was established under FESOP 129-5036-00021 (issued on December 11, 1996) to limit the single HAP (HCl) emissions to less than 9 tons per year.

**Appendix A: Emission Calculations**  
**Process**  
**Particulate Matter Emissions**

**Company Name:** Bristol-Myers Squibb Company  
**Address City IN Zip:** State Highway 62 East, Mt. Vernon, Indiana  
**FESOP MPR No.:** 129-27491-00021  
**Plt ID:** 129-00021  
**Reviewer:** Jack Harmon  
**Date:** 03/19/09

Particulate Matter Emissions from mixing, weighing, pressing, and coating facilities

| Unit ID  | Type of Process                         | Max. Process Weight Rate | Emission Factor        | Source of  | Control Efficiency | Potential Uncontrolled | Potential Uncontrolled | Potential Controlled |
|--|---|--------------------------|------------------------|--|--------------------|------------------------|------------------------|----------------------|
|  |   | lb/hr                    | lb PM / 2000 lb solids | Emission Factor *  | (%)                | PM Emissions           | PM Emissions           | PM Emissions         |
|  |   |                          |                        |  |                    | lbs/hr                 | tons/yr                | tons/yr ***          |
| Pharmaceutical packaging lines (Building 122)  | Packaging line 3                        | 88.40                    | 0.02                   | Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.   | 99.00              | 0.001                  | 0.00                   | 0.0000               |
| Pharmaceutical packaging lines (Building 124)  | Packaging lines 7, 8, 9, 11, 12, and 14 | 2336.00                  | 0.02                   | Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.   | 99.00              | 0.02                   | 0.10                   | 0.0010               |
| Aqueous Granulations (Building 121, Room 1119) | Granulator                              | 98.00                    | 2.10                   | Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993) | 99.00              | 0.10                   | 0.45                   | 0.0045               |
| Aqueous Granulations (Building 121, Room 1119) | Glatt 120 fluid bed dryer               | 98.00                    | 10.00                  | Worse case engineering estimate - amount lost to product recovery bag filter from materials            | 99.00              | 0.49                   | 2.15                   | 0.0215               |
| Tablet Coater (Building 121, Room 116c)        | Single pan coater                       | 50.00                    | 2.00                   | Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993) | 99.00              | 0.05                   | 0.22                   | 0.0022               |
| Tablet Coater (Building 121, Room 1023)        | Single pan coater                       | 50.00                    | 2.00                   | Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993) | 99.00              | 0.05                   | 0.22                   | 0.0022               |
| Tablet Core Press (Building 121, Room 116c)    | Tablet Core Press                       | 80.00                    | 7.80                   | Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993) | 99.00              | 0.31                   | 1.37                   | 0.0137               |
| Tablet Core Press (Building 121, Room 1014)    | Tablet Core Press                       | 80.00                    | 7.80                   | Emission factor developed from stack testing study conducted at Mead Johnson - Evansville (March 1993) | 99.00              | 0.31                   | 1.37                   | 0.0137               |
| Small Weigh Room                               | Dry Material Weigh Room                 | 1237.00                  | 0.20                   | Engineering estimate. Closed Room, dust generation is negligible.                                      | 99.00              | 0.12                   | 0.54                   | 0.0054               |
| <b>Total Potential PM Emissions (tons/yr):</b> |   |                          |                        |  |                    |                        | <b>6.42</b>            | <b>0.06</b>          |

**Methodology**

Throughput (lb/hr) \* EF (lb PM / 2000 lb solids) \* 8760 hr/yr \* ton/2000 lb = throughput (ton/yr)

\* Emission factors are provided by the source.

\*\* Evansville Stack Test, 3/93, approved by IDEM.

Company Name: Bristol-Myers Squibb Company  
 Plant Location: State Route 62 East, Mt. Vernon, IN 47620  
 FESOP MPR No.: 129-27491-00021  
 Plant ID No.: 129-00021  
 Permit Reviewer: Jack Harmon  
 Date: 3/19/2009

**Boilers**

This source has three boilers, identified as S-1, S-2 and S-27 with heat input ratings of 30.64, 30.64 and 60.8 MMBtu/hr, respectively. Each boilers is capable of burning both natural gas and No. 2 fuel oil.

**\*\*Boilers S-1, S-2. and S-27 burning natural gas\*\***

The following calculations determine the amount of emissions created by natural gas combustion, from the boilers (S-1 and S-2), based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, and 1.4-2.

|                            |  |                           |
|----------------------------|--|---------------------------|
| <b>Criteria Pollutant:</b> | $\frac{122.08 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{1000 \text{ MMBtu/MMcf} * 2,000 \text{ lb/ton}}$ | * Ef (lb/MMcf) = (ton/yr) |
| <b>P M:</b>                | 1.9 lb/MMcf =  | <b>1.02 ton/yr</b>        |
| <b>P M-10:</b>             | 7.6 lb/MMcf =  | <b>4.06 ton/yr</b>        |
| <b>S O 2:</b>              | 0.6 lb/MMcf =  | <b>0.32 ton/yr</b>        |
| <b>N O x:</b>              | 100.0 lb/MMcf =  | <b>53.47 ton/yr</b>       |
| <b>V O C:</b>              | 5.5 lb/MMcf =  | <b>2.94 ton/yr</b>        |
| <b>C O:</b>                | 84.0 lb/MMcf =   | <b>44.92 ton/yr</b>       |

**Total natural gas potential emissions**

|                |              |
|----------------|--------------|
| <b>P M:</b>    | <b>1.02</b>  |
| <b>P M-10:</b> | <b>4.06</b>  |
| <b>S O 2:</b>  | <b>0.32</b>  |
| <b>N O x:</b>  | <b>53.47</b> |
| <b>V O C:</b>  | <b>2.94</b>  |
| <b>C O:</b>    | <b>44.92</b> |

**\*\*Boilers S-1, S-2. and S-27 burning No. 2 fuel oil\*\***

The following calculations determine the amount of 0.3 % sulfur, from the boilers (S-1 and S-2), based on 8,760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-3, and 1.3-7. distillate fuel oil @

|                            |  |                                |
|----------------------------|--|--------------------------------|
| <b>Criteria Pollutant:</b> | $\frac{122.08 \text{ MMBtu/hr} * 8,760 \text{ hr/yr}}{140,000 \text{ Btu/gal} * 2,000 \text{ lb/ton}}$ | * Ef (lb/1,000 gal) = (ton/yr) |
| <b>P M:</b>                | 2.0 lb/1000 gal =  | <b>7.64 ton/yr</b>             |
| <b>P M-10:</b>             | 2.0 lb/1000 gal =  | <b>7.64 ton/yr</b>             |
| <b>S O 2:</b>              | 42.6 lb/1000 gal =   | <b>162.70 ton/yr</b>           |
| <b>N O x:</b>              | 20.0 lb/1000 gal =   | <b>76.39 ton/yr</b>            |
| <b>V O C:</b>              | 0.20 lb/1000 gal =   | <b>0.76 ton/yr</b>             |
| <b>C O:</b>                | 5.0 lb/1000 gal =  | <b>19.10 ton/yr</b>            |

**Total No. 2 fuel oil potential emissions**

|                |               |
|----------------|---------------|
| <b>P M:</b>    | <b>7.64</b>   |
| <b>P M-10:</b> | <b>7.64</b>   |
| <b>S O 2:</b>  | <b>162.70</b> |
| <b>N O x:</b>  | <b>76.39</b>  |
| <b>V O C:</b>  | <b>0.76</b>   |
| <b>C O:</b>    | <b>19.10</b>  |

**Worst Case Potential Emissions**

|                            |                |                      |                         |
|----------------------------|----------------|----------------------|-------------------------|
| <b>Criteria Pollutant:</b> | <b>P M:</b>    | <b>7.64 ton/yr</b>   | <b>Worst Case Fuel</b>  |
|                            | <b>P M-10:</b> | <b>7.64 ton/yr</b>   | No. 2 Residual Fuel Oil |
|                            | <b>S O 2:</b>  | <b>162.70 ton/yr</b> | No. 2 Residual Fuel Oil |
|                            | <b>N O x:</b>  | <b>76.39 ton/yr</b>  | No. 2 Residual Fuel Oil |
|                            | <b>V O C:</b>  | <b>2.94 ton/yr</b>   | Natural Gas             |
|                            | <b>C O:</b>    | <b>44.92 ton/yr</b>  | Natural Gas             |

**\*\* Source emissions after limitations and controls \*\***

In order to qualify for the FESOP program, this source must limit SO2 emissions to less than 100 tons per year. Consequently, SO2 emissions from the boilers must be limited to 97.55 tons per year (99.0 tons per year - 1.45 tons per year from the incinerator and emergency generators) .

**\*\* source usage limitations \*\***

The following calculations determine the amount of emissions created by natural gas combustion based on a fuel usage limitation of **1.07E+03** MMcf

|                     |                  |           |                           |
|---------------------|------------------|-----------|---------------------------|
| <b>Natural Gas:</b> | <u>1,069.421</u> | MMcf/yr   | * Ef (lb/MMcf) = (ton/yr) |
|                     | 2,000            | lb/ton    |                           |
| <b>P M:</b>         | 1.9              | lb/MMcf = | <b>1.02 ton/yr *</b>      |
| <b>P M-10:</b>      | 7.6              | lb/MMcf = | <b>4.06 ton/yr *</b>      |
| <b>S O 2:</b>       | 0.6              | lb/MMcf = | <b>0.32 ton/yr</b>        |
| <b>N O x:</b>       | 100.0            | lb/MMcf = | <b>53.47 ton/yr</b>       |
| <b>V O C:</b>       | 5.5              | lb/MMcf = | <b>2.94 ton/yr</b>        |
| <b>C O:</b>         | 84.0             | lb/MMcf = | <b>44.92 ton/yr</b>       |

The source has requested to limit the annual No.2 fuel oil usage to less than 4230 kgal/yr

The following calculations determine the amount of emissions created by No.2 distillate fuel oil @ **0.3** % sulfur based on a fuel usage limitation of **4,230,000** gal/yr requested by the source:

|                              |                  |               |                                |
|------------------------------|------------------|---------------|--------------------------------|
| <b>No. 2 Distillate Oil:</b> | <u>4,230,000</u> | gal/yr        | * Ef (lb/1,000 gal) = (ton/yr) |
|                              | 2,000            | lb/ton        |                                |
| <b>P M:</b>                  | 2.0              | lb/1000 gal = | <b>4.23 ton/yr</b>             |
| <b>P M-10:</b>               | 2.0              | lb/1000 gal = | <b>4.23 ton/yr</b>             |
| <b>S O 2:</b>                | 42.6             | lb/1000 gal = | <b>90.10 ton/yr</b>            |
| <b>N O x:</b>                | 20.0             | lb/1000 gal = | <b>42.30 ton/yr</b>            |
| <b>V O C:</b>                | 0.20             | lb/1000 gal = | <b>0.42 ton/yr</b>             |
| <b>C O:</b>                  | 5.0              | lb/1000 gal = | <b>10.58 ton/yr</b>            |

**Worst Case Emissions**

|                            |                |                     |                         |
|----------------------------|----------------|---------------------|-------------------------|
| <b>Criteria Pollutant:</b> | <b>P M:</b>    | <b>4.23 ton/yr</b>  | <b>Worst Case Fuel</b>  |
|                            | <b>P M-10:</b> | <b>4.23 ton/yr</b>  | No. 2 Residual Fuel Oil |
|                            | <b>S O 2:</b>  | <b>90.10 ton/yr</b> | No. 2 Residual Fuel Oil |
|                            | <b>N O x:</b>  | <b>53.47 ton/yr</b> | Natural Gas             |
|                            | <b>V O C:</b>  | <b>2.94 ton/yr</b>  | Natural Gas             |
|                            | <b>C O:</b>    | <b>44.92 ton/yr</b> | Natural Gas             |

**\*\* Fuel Equivalence\*\***

Fuel equivalence limit for natural gas based on SO2 emissions from #2 distillate fuel oil:

$$\frac{0.32 \text{ n.g. potential emissions (ton/yr)}}{1069.42 \text{ n.g. potential usage (MMCF/yr)}} \div \frac{162.70 \text{ #2 fuel oil potential emissions (ton/yr)}}{7.64E+06 \text{ #2 fuel oil potential usage (kgal/yr)}} = 1.408E+01 \frac{\text{MMCF n.g. burned}}{\text{No. 2 distillate fuel oil (kgals)}}$$

**326 IAC 7 Compliance Calculations:**

The following calculations determine the maximum sulfur content of distillate fuel oil (No. 2 Oil) allowable by 326 IAC 7:

$$0.5 \text{ lb/MMBtu} \times 140,000 \text{ Btu/gal} = 70 \text{ lb/1000gal}$$

$$70 \text{ lb/1000gal} / 144 \text{ lb/1000 gal} = 0.5 \%$$

Sulfur content must be less than or equal to 0.5% to comply with 326 IAC 7.

**Hazardous Air Pollutants (HAPs)**

**\*\* All boilers burning #2 fuel oil\*\***

The following calculations determine the amount of HAP emissions created by the combustion of distillate fuel oil before & after controls @ 0.3% sulfur, from the boilers (S-1, S-2, and S-27), based on 8760 hours of use and US EPA's AP-42, 5th Edition, Section 1.3 - Fuel Oil Combustion, Table 1.3-11.

|                      | Potential (kgal/yr) | Limited (kgal/yr) |                        |                        |
|----------------------|---------------------|-------------------|------------------------|------------------------|
| No. 2 fuel oil usage | 7,639               | 4,230             |                        |                        |
|                      |                     |                   | Potential To Emit      | Limited Emissions      |
| <b>Arsenic:</b>      | 4.00E-06 lb/MMBtu = |                   | 2.14E-03 ton/yr        | 1.18E-03 ton/yr        |
| <b>Beryllium:</b>    | 3.00E-06 lb/MMBtu = |                   | 1.60E-03 ton/yr        | 8.88E-04 ton/yr        |
| <b>Cadmium:</b>      | 3.00E-06 lb/MMBtu = |                   | 1.60E-03 ton/yr        | 8.88E-04 ton/yr        |
| <b>Chromium:</b>     | 3.00E-06 lb/MMBtu = |                   | 1.60E-03 ton/yr        | 8.88E-04 ton/yr        |
| <b>Lead:</b>         | 9.00E-06 lb/MMBtu = |                   | 4.81E-03 ton/yr        | 2.66E-03 ton/yr        |
| <b>Manganese:</b>    | 6.00E-06 lb/MMBtu = |                   | 3.21E-03 ton/yr        | 1.78E-03 ton/yr        |
| <b>Mercury:</b>      | 3.00E-06 lb/MMBtu = |                   | 1.60E-03 ton/yr        | 8.88E-04 ton/yr        |
| <b>Nickel:</b>       | 3.00E-06 lb/MMBtu = |                   | 1.60E-03 ton/yr        | 8.88E-04 ton/yr        |
| <b>Selenium:</b>     | 1.50E-05 lb/MMBtu = |                   | 8.02E-03 ton/yr        | 4.44E-03 ton/yr        |
| <b>Total HAPs =</b>  |                     |                   | <b>2.62E-02 ton/yr</b> | <b>1.45E-02 ton/yr</b> |

**\*\* All boilers burning natural gas \*\***

The following calculations determine the amount of emissions created by natural gas combustion, from all boilers, based on 8,760 hours of operation and US EPA's AP-42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1, and 1.4-2.

|                              | Potential (MMcf/yr) |                        |  |
|------------------------------|---------------------|------------------------|--|
| Natural gas usage            | 1.07E+03            |                        |  |
|                              |                     | Potential Emissions    |  |
| <b>Benzene:</b>              | 2.1E-03 lb/MMcf =   | 1.12E-03 ton/yr        |  |
| <b>Dichlorobenzene:</b>      | 1.2E-03 lb/MMcf =   | 6.42E-04 ton/yr        |  |
| <b>Formaldehyde:</b>         | 7.5E-02 lb/MMcf =   | 4.01E-02 ton/yr        |  |
| <b>Hexane:</b>               | 1.8E+00 lb/MMcf =   | 9.62E-01 ton/yr        |  |
| <b>Toluene:</b>              | 3.4E-03 lb/MMcf =   | 1.82E-03 ton/yr        |  |
| <b>Lead:</b>                 | 5.0E-04 lb/MMcf =   | 2.67E-04 ton/yr        |  |
| <b>Cadmium:</b>              | 1.1E-03 lb/MMcf =   | 5.88E-04 ton/yr        |  |
| <b>Chromium:</b>             | 1.4E-03 lb/MMcf =   | 7.49E-04 ton/yr        |  |
| <b>Manganese:</b>            | 3.8E-04 lb/MMcf =   | 2.03E-04 ton/yr        |  |
| <b>Nickel:</b>               | 2.1E-03 lb/MMcf =   | 1.12E-03 ton/yr        |  |
| <b>1.89E+00 Total HAPs =</b> |                     | <b>1.01E+00 ton/yr</b> |  |

**\*\* summary of source HAP emissions potential to emit \*\***

|                  |                        |
|------------------|------------------------|
| Arsenic          | 2.14E-03 ton/yr        |
| Beryllium:       | 1.60E-03 ton/yr        |
| Cadmium:         | 2.19E-03 ton/yr        |
| Chromium:        | 2.35E-03 ton/yr        |
| Lead:            | 5.08E-03 ton/yr        |
| Manganese:       | 3.41E-03 ton/yr        |
| Mercury:         | 1.60E-03 ton/yr        |
| Nickel:          | 2.73E-03 ton/yr        |
| Selenium:        | 8.02E-03 ton/yr        |
| Benzene:         | 1.12E-03 ton/yr        |
| Dichlorobenzene: | 6.42E-04 ton/yr        |
| Formaldehyde:    | 4.01E-02 ton/yr        |
| Hexane:          | 9.62E-01 ton/yr        |
| Toluene:         | 1.82E-03 ton/yr        |
| <b>Total:</b>    | <b>1.04E+00 ton/yr</b> |

**\*\* summary of source HAP limited emissions \*\***

|                  |                        |
|------------------|------------------------|
| Arsenic          | 1.18E-03 ton/yr        |
| Beryllium:       | 8.88E-04 ton/yr        |
| Cadmium:         | 1.48E-03 ton/yr        |
| Chromium:        | 1.64E-03 ton/yr        |
| Lead:            | 2.93E-03 ton/yr        |
| Manganese:       | 1.98E-03 ton/yr        |
| Mercury:         | 8.88E-04 ton/yr        |
| Nickel:          | 2.01E-03 ton/yr        |
| Selenium:        | 4.44E-03 ton/yr        |
| Benzene:         | 1.12E-03 ton/yr        |
| Dichlorobenzene: | 6.42E-04 ton/yr        |
| Formaldehyde:    | 4.01E-02 ton/yr        |
| Hexane:          | 9.62E-01 ton/yr        |
| Toluene:         | 1.82E-03 ton/yr        |
| <b>Total:</b>    | <b>1.02E+00 ton/yr</b> |

**Appendix A: Emission Calculations  
Tablet Coating**

**Company Name: Bristol-Myers Squibb Company**  
**Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620**  
**FESOP MPR No.: 129-27491-00021**  
**Plt ID: 129-00021**  
**Reviewer: Jack Harmon**  
**Date: 03/19/09**

**Tablet Coating Process (S-30) - Building 121**

Tablet Coating Process comprised of three coating suspension prep tanks (coating solids, water, hydrochloric acid mixed into solution) and a single pan tablet coating machine (coating suspension sprayed onto uncoated tablets). Exhausts from prep tanks and pan coater are combined in a vent header with a local exhaust over HCl storage drums, and vented to a packed-bed scrubber for HCl fume and particulate control.

**Production and Emission Related Information and Data**

| Parameter                       | Value | Units | Basis   |
|---------------------------------|-------|-------|---|
| Dust Loading to Scrubber        |       |       |   |
| Maximum Loading                 | 17.5  | g/min | Engineering design estimate - batch production data   |
| Acid Fume Loading to Scrubber   |       |       |   |
| Maximum Loading                 | 1.1   | g/min | Engineering design estimate - batch production data   |
| Scrubber PM Control Efficiency  | 99    | %     | Nominal equipment performance assumed<br>(Manufacturer's guaranteed control efficiency is 99.97%) |
| Scrubber HCl Control Efficiency | 97    | %     | Nominal equipment performance assumed<br>(Manufacturer's guaranteed control efficiency is 99.0%)  |

**Potential Emission Calculations Based on Worst Case Engineering Design Estimates:**

*Uncontrolled particulate:*

$$= 17.5 \text{ grams/minute} \times 60 \text{ minutes/hour} / 454 \text{ grams/pound}$$

|                   |              |               |
|-------------------|--------------|---------------|
| Uncontrolled PM = | 2.31         | lb/hr         |
|                   | 55.44        | lb/day        |
|                   | <b>10.12</b> | <b>ton/yr</b> |

*Controlled particulate:*

$$= 2.31 \text{ lbs uncontrolled PM/hr} \times (1 - 0.99)$$

|                 |             |               |
|-----------------|-------------|---------------|
| Controlled PM = | 0.02        | lb/hr         |
|                 | 0.55        | lb/day        |
|                 | <b>0.10</b> | <b>ton/yr</b> |

*Uncontrolled HCl:*

$$= 1.10 \text{ grams/minute} \times 60 \text{ minutes/hour} / 454 \text{ grams/pound}$$

|                    |             |               |
|--------------------|-------------|---------------|
| Uncontrolled HCl = | 0.15        | lb/hr         |
|                    | 3.49        | lb/day        |
|                    | <b>0.64</b> | <b>ton/yr</b> |

*Controlled HCl:*

$$= 0.15 \text{ lbs uncontrolled HCl/hr} \times (1 - 0.97)$$

|                  |             |               |
|------------------|-------------|---------------|
| Controlled HCl = | 0.00        | lb/hr         |
|                  | 0.11        | lb/day        |
|                  | <b>0.02</b> | <b>ton/yr</b> |

**Appendix A: Emission Calculations  
Incinerator**

**Company Name:** Bristol-Myers Squibb Company  
**Address City IN Zip:** State Route 62 East, Mt. Vernon, IN 47620  
**FESOP MPR No.:** 129-27491-00021  
**Plt ID:** 129-00021  
**Reviewer:** Jack Harmon  
**Date:** 03/19/09

|           | THROUGHPUT | THROUGHPUT |
|-----------|------------|------------|
|           | lbs/hr     | ton/yr     |
| Potential | 250        | 1095       |
| Limited   | 122.67     | 537.29     |

| Emission Factor in lb/ton     | POLLUTANT |     |      |     |     |
|-------------------------------|-----------|-----|------|-----|-----|
|                               | PM        | SO2 | CO   | VOC | NOX |
|                               | 7.0       | 2.5 | 10.0 | 3.0 | 3.0 |
| Potential Emissions in ton/yr | 3.8       | 1.4 | 5.5  | 1.6 | 1.6 |
| Limited Emissions in ton/yr   | 1.9       | 0.7 | 2.7  | 0.8 | 0.8 |

**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: Emission Calculations  
Incinerator  
HAPs Emissions**

**Company Name: Bristol-Myers Squibb Company  
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620  
FESOP MPR No.: 129-27491-00021  
Plt ID: 129-00021  
Reviewer: Jack Harmon  
Date: 03/19/09**

|           | THROUGHPUT | THROUGHPUT |
|-----------|------------|------------|
|           | lbs/hr     | ton/yr     |
| Potential | 250        | 1095       |
| Limited   | 122.67     | 537.29     |

| Pollutant (HAPs)  | Emission Factor | Potential Throughput | Limited Throughput |
|-------------------|-----------------|----------------------|--------------------|
|                   | lbs/ton         | tons/yr              | tons/yr            |
| Lead              | 0.0728          | 0.03986              | 0.01956            |
| Hydrochloric Acid | 33.5            | 18.34125             | 8.99968            |
| PCBs              | 0.000047        | 0.00003              | 0.00001            |
| Antimony          | 0.0128          | 0.00701              | 0.00344            |
| Arsenic           | 0.000242        | 0.00013              | 0.00007            |
| Beryllium         | 6.3E-06         | 0.00000              | 0.00000            |
| Cadmium           | 0.00548         | 0.00300              | 0.00147            |
| Chromium          | 0.000775        | 0.00042              | 0.00021            |
| Manganese         | 0.000567        | 0.00031              | 0.00015            |
| Mercury           | 0.107           | 0.05858              | 0.02875            |
| Nickel            | 0.000567        | 0.00031              | 0.00015            |
| Chlorine          | 0.149           | 0.08158              | 0.04003            |
| Hydrofloric Acid  | 0.149           | 0.08158              | 0.04003            |
| Dioxins           | 0.000021        | 0.00001              | 0.00001            |

|                   |                 |                |
|-------------------|-----------------|----------------|
| <b>Total HAPs</b> | <b>18.61407</b> | <b>9.13355</b> |
|-------------------|-----------------|----------------|

|                                    |                 |                |
|------------------------------------|-----------------|----------------|
| <b>Single Worst Case HAP (HCl)</b> | <b>18.34125</b> | <b>8.99968</b> |
|------------------------------------|-----------------|----------------|

**Methodology**

Emission factors are from AP 42 (5th Edition 1/95) Table 2.3-3.

combustors, multiple chambers

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

**Appendix A: Emissions Calculations**  
**Medical Waste Incinerator Compliance with 326 IAC 4-2-2**

**Company Name: Bristol-Myers Squibb Company**  
**Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620**  
**FESOP MPR No.: 129-27491-00021**  
**Plt ID: 129-00021**  
**Reviewer: Jack Harmon**  
**Date: 03/19/09**

|                        |         |       |
|------------------------|---------|-------|
| Potential PM emissions | 0.43    | lb/hr |
| Stack gas flow rate    | 2800.00 | acfm  |
| Gas temperature        | 900.00  | deg F |
| Incinerator Throughput | 122.67  | lb/hr |

**Q<sub>std</sub> = Volumetric flow rate at Standard Temperature**

$$Q_{std} = 2800 \text{ acfm} \times \frac{529 \text{ deg R}}{2328} = 636.25 \text{ dscfm}$$

**C<sub>s</sub> = PM Concentration**

$$C_s = \frac{0.43 \text{ lb/hr}}{636.25 \text{ dscfm}} \times \frac{7000 \text{ gr/lb}}{60 \text{ min/hr}} = 0.080 \text{ gr/dscf}$$

**Corrected to 50% excess air**

$$C_{s, \text{ corrected}} = 0.080 \text{ gr/dscf} \times \frac{(100+0)\%}{150\%} = 0.053 \text{ gr/dscf}$$

**Ideal Gas Law**

Specific Volume =  $\frac{R \times T}{P \times Mw}$  where

R = gas constant =  $\frac{21.9(\text{in Hg})(\text{ft}^3)}{(\text{lb mol})(\text{deg R})}$

T = standard temp = 529 deg R

P = standard pressure = 29.45 in Hg

Mw = avg molecular weight of air = 29 lb/lbmol

Specific Volume = **13.565** cf/lb air

$$C_{s, \text{ corrected}} = 0.053 \text{ gr/dscf} \times 13.565 \text{ cf/lb air} = 0.720 \text{ gr/lb air}$$

$$0.720 \text{ gr/lb air} \times \frac{1}{7000} \text{ lb pm/gr} = 0.00010 \text{ lb PM/lb dry gas} = \mathbf{0.1028} \text{ lb PM/1000 lb dry gas}$$

Maximum allowable particulate emission pursuant to 326 IAC 4-2-2 is 0.3 lb PM/1000 lb dry gas.  
 The medical waste incinerator is in compliance with 326 IAC 4-2-2.

**Appendix A: Emission Calculations  
Internal Combustion Engines - Diesel Fuel  
Compression Ignition Internal Combustion Engines (< 10 MMBtu/hr)**

**Company Name: Bristol-Myers Squibb Company  
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620  
FESOP MPR No.: 129-27491-00021  
Plt ID: 129-00021  
Reviewer: Jack Harmon  
Date: 03/19/09**

**Potential Emissions calculated based on 500 hours per year.**

|  | Generator Capacity<br>MMBtu/hr |
|--|--------------------------------|
| One (1) emergency diesel generator, identified as S-3  | 4.4                            |
| One (1) emergency diesel generator, identified as S-7  | 0.7                            |
| One (1) emergency diesel generator, identified as Caterpillar<br>emergency generator                 | 5                              |
| One (1) emergency diesel generator, identified as E-1  | 2.5                            |
| One (1) emergency diesel generator of 400kW, added<br>in 2009, identified as Building 210 Generator. | 4.15                           |
|  | <b>16.75</b> Total MMBtu/hr    |

|  | Pollutant |      |      |       |      |      |
|--|-----------|------|------|-------|------|------|
|  | PM        | PM10 | SO2  | NOx   | VOC  | CO   |
| Emission Factor in lb/MMBtu                              | 0.31      | 0.31 | 0.29 | 4.41  | 0.35 | 0.95 |
| Potential Emission for 400kW Gen only<br>(tons per year) | 0.32      | 0.32 | 0.30 | 4.58  | 0.36 | 0.99 |
| Potential Emission in tons/yr (all generators)           | 1.30      | 1.30 | 1.21 | 18.47 | 1.47 | 3.98 |

**Methodology**

Emission Factors are from AP42 (Fifth edition, January 1995), Table 3.3-1 and 3.3-2

Potential Emission (tons/yr) = [Generator Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 500 hr/yr / (2,000 lb/ton)

Actual Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] \* 500 hr/yr / (2,000 lb/ton)

**HAPs - Organics**

|  | Benzene | Acetaldehyde | Toluene | Propylene | Formaldehyde |
|--|---------|--------------|---------|-----------|--------------|
| Emission Factor in lb/MMBtu                              | 9.3E-04 | 7.7E-04      | 4.1E-04 | 2.6E-03   | 1.2E-03      |
| Potential Emission for 400kW Gen only<br>(tons per year) | 0.0000  | 0.0000       | 0.0000  | 0.0002    | 0.0001       |
| Potential Emission in tons/yr (all generators)           | 0.0039  | 0.0032       | 0.0017  | 0.0108    | 0.0049       |

Methodology is the same as above.

The five highest organic HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 3.3.

The 400kW Diesel Emergency Generator, added in 2009, is also bound by NSPS, 40 CFR Part 60, Subpart IIII.

For comparison purposes, the following table represents the requirements of NSPS, Subpart IIII. AP-42 represents the more stringent.

Based on Emission Factors in NSPS Subpart IIII, the following are the Potential Emissions in Tons per year for NOx and PM:

| Pollutant | Emission Factor | Kilowatt-hours | Grams per year | Tons per year |
|-----------|-----------------|----------------|----------------|---------------|
| NOx:      | 1.6 gr/kW-hr    | 400            | 320000         | 3.52          |
| PM:       | 0.15 gr/kW-hr   | 400            | 30000          | 0.33          |

**Appendix A: Emission Calculations  
VOC  
From Cold Cleaning Operation**

**Company Name: Bristol-Myers Squibb Company  
Address City IN Zip: State Highway 62 East, Mt. Vernon, Indiana  
FESOP MPR No.: 129-27491-00021  
Plt ID: 129-00021  
Reviewer: Jack Harmon  
Date: 03/19/09**

**Insignificant Activity: Two (2) cold cleaners/degreaser**

| Potential Emissions:              |                                       |                     |  |                   |                      |                   |                                 |                                   |                                     |                                    |                                   |
|-----------------------------------|---------------------------------------|---------------------|--|-------------------|----------------------|-------------------|---------------------------------|-----------------------------------|-------------------------------------|------------------------------------|-----------------------------------|
| Material<br>(as applied)          | Process                               | Density<br>(Lb/Gal) | Weight %<br>Volatile<br>(H2O&<br>Organics) | Weight %<br>Water | Weight %<br>Organics | Volume %<br>Water | Volume %<br>Non-Vol<br>(solids) | Gal of Mat.<br>lost<br>(gal/day)* | Potential<br>VOC pounds<br>per hour | Potential<br>VOC pounds<br>per day | Potential<br>VOC tons<br>per year |
| Safety-Kleen Premium Gold Solvent | Cold Cleaners (Buildings 104 and 122) | 6.80                | 100.00%                                    | 0.00%             | 100.00%              | 0.00%             | 0.00%                           | 0.027                             | 0.01                                | 0.19                               | 0.03                              |
| <b>Total Potential Emissions:</b> |                                       |                     |  |                   |                      |                   |                                 |                                   | <b>0.01</b>                         | <b>0.19</b>                        | <b>0.034</b>                      |

Note: \* Gallons of material lost is based on actual material usage in 2005. According to the records Safety Kleen, in 2005 supplied total of 88 gallons of clean solvent and removed 78 gallons (of solvent after adjusting for the volume of sludge, dirt, etc.) HAP content of the solvent is negligible.

Methodology:

Potential VOC Pounds per Hour = Density (lb/gal) \* Gal of Material (gal/day) / 24 hrs/day

Potential VOC Pounds per Day = Density (lb/gal) \* Gal of Material (gal/day)

Potential VOC Tons per Year = Density (lb/gal) \* Gal of Material (gal/day) \* (365 days/yr) \* (1 ton/2000 lbs)

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**Incinerator Burner**

**Company Name: Bristol-Myers Squibb Company**  
**Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620**  
**FESOP MPR No.: 129-27491-00021**  
**Plt ID: 129-00021**  
**Reviewer: Jack Harmon**  
**Date: 03/19/09**

Heat Input Capacity

|  | MMBtu/hr | Potential Throughput<br>MMCF/yr |
|--|----------|---------------------------------|
| One (1) emergency generator - Building 200 (Caterpillar Model 25F3)                              | 0.45     |                                 |
| One (1) emergency generator - Building 210 (Onan Model 100GGHD)                                  | 1.24     |                                 |
| One (1) emergency generator - Building 210 (Onan Model 60ENA)                                    | 0.72     |                                 |
| One (1) Hot water heater   | 0.197    |                                 |
| One (1) Trane unit heater  | 0.045    |                                 |
| Two (2) air treatment units (# 1 and # 2), each rated at 3.75 mmBtu/hr                           | 7.5      |                                 |
| Two (2) air treatment units (# 3 and # 4), each rated at 2.5 mmBtu/hr                            | 5        |                                 |
| Three (3) heaters (MU-1, RT-1 and RT-2), each rated at 0.5, 0.35 and 0.25 mmBtu/hr, respectively | 1.1      |                                 |
| One (1) natural gas fired incinerator burner identified as S-4                                   | 1.5      |                                 |
|  | 17.8     | 155.5                           |

| 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 | 0.15      | 0.59  | 0.047 | 7.78        | 0.43 | 6.53 |

\*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

**Appendix A: Emissions Calculations**

**Natural Gas Combustion Only**

**MM BTU/HR <100**

**HAPs Emissions**

**Company Name: Bristol-Myers Squibb Company**  
**Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620**  
**FESOP Renewal No.: 129-27491-00021**  
**Plt ID: 129-00021**  
**Reviewer: Jack Harmon**  
**Date: 03/19/09**

HAPs - Organics

| Emission Factor in lb/MMcf    | Benzene<br>2.1E-03 | Dichlorobenzene<br>1.2E-03 | Formaldehyde<br>7.5E-02 | Hexane<br>1.8E+00 | Toluene<br>3.4E-03 |
|-------------------------------|--------------------|----------------------------|-------------------------|-------------------|--------------------|
| Potential Emission in tons/yr | 1.633E-04          | 9.330E-05                  | 5.832E-03               | 1.400E-01         | 2.644E-04          |

HAPs - Metals

| Emission Factor in lb/MMcf    | Lead<br>5.0E-04 | Cadmium<br>1.1E-03 | Chromium<br>1.4E-03 | Manganese<br>3.8E-04 | Nickel<br>2.1E-03 |
|-------------------------------|-----------------|--------------------|---------------------|----------------------|-------------------|
| Potential Emission in tons/yr | 3.888E-05       | 8.553E-05          | 1.089E-04           | 2.955E-05            | 1.633E-04         |

Methodology is the same as previous page.

Total HAPs: 1.467E-01 ton/yr

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