



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

100 North Senate Avenue
Indianapolis, Indiana 46204
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TO: Interested Parties / Applicant
DATE: October 13, 2006
RE: Mead Johnson & Company / 129-23109-00021
FROM: Nisha Sizemore
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 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, 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 and IC 13-15-6-1 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 of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot 03/23/06



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

**Mead Johnson & 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 signed by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: October 13, 2006 Expiration Date: October 13, 2011

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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.

Authorized Individual:	Senior Vice President, Global Supply Chain
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) 833-3140
SIC Code:	2834
County Location:	Posey
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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) Two (2) dry material mixing and blending operations, identified as Room 1101 (S-9) and Room 1102 (S-10) located in Building 122, with a maximum capacity of 693 and 926 lbs/hr, respectively, each controlled by a dust collector for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system for equipment/rooms controlled by dust collector # 29688.
- (e) Three (3) core pressing units, identified as Room 1109 (S-13), Room 1111 (S-14), and Room 1113 (S-15), each with maximum capacity of 354 lbs/hr, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688.

- (f) 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)]

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) Two (2) dry material weigh rooms, identified as Room 1107 (S-11) and 1108 (S-12) located in Building 122, with a maximum capacity of 10 and 45.3 lbs/hr, respectively, each controlled by a dust collector for PM control, identified as # 29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688.
 - (2) Four (4) core pressing units, identified as Room 1120 (S-16), Room 1122 (S-17), Room 1121 (S-18), and Room 1120 (S-19), with a maximum capacity of 120, 261, 235, and 179 lbs/hr, respectively, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688. [326 IAC 6-3-2]
 - (3) Two (1) tablet coating units (1-pan coaters #1 and #2), identified as Room 1112 (S-20), for presses S-13 through S-16 located in Building 122, with a maximum capacity of 874 lbs/hr, controlled by two (2) dust collectors for PM control, identified as #29680 and #29681, and exhausting through two (2) stacks SV-11 and SV-12. [326 IAC 6-3-2]
 - (4) Four (4) tablet coating units (1-pan coater #5, #4, #3, and #6), identified as Room 1125 (S-21), 1124 (S-22), 1117 (S-23), and 1123 (S-25), for presses S-17 through S-19, with a combined maximum capacity of 654 lbs/hr, each controlled by a dust collector for PM control, identified as # 29684, #29683, #29682, and #29691, respectively, and each exhausting through a stack identified as SV-13, 14, 15, and 17, respectively. [326 IAC 6-3-2]
 - (5) 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]
 - (6) 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]
 - (7) 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]
 - (8) 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]

- (9) 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]
 - (10) 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]
 - (11) Pharmaceutical packaging lines 1, 2, 3, 5, and 6 identified as S-6 (Building 122), with a maximum capacity of 442 lbs/hr from lines that are exhausted to dust collector (3 and 6), and controlled by a dust collector for PM identified as #29687. [326 IAC 6-3-2]
 - (12) Pharmaceutical packaging lines 7, 8, 9, 11 and 14 identified as S-6 (Building 124), with a maximum capacity of 2336 lbs/hr, and controlled by a dust collector for PM identified as #29703. [326 IAC 6-3-2]
- (b) Cold solvent cleaning station (2 square feet).
 - (c) Cold solvent cleaning station (3.75 square feet).
 - (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.
 - (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) Two (2) 20,000 gallon underground storage tanks 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]

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)]

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]

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)]

- (a) This permit, F129-23109-00021, is issued for a fixed term of five (5) 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]

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]

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)]

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)]

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)]

- (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)]

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)]

- (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)]

- (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 Branch, Office of Air Quality
100 North Senate Avenue
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.

- (c) 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 Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 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 Branch, Office of Air Quality
100 North Senate Avenue
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.
- (h) 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]

- (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)]

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)]

- (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 to:

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality

100 North Senate Avenue
Indianapolis, Indiana 46204-2251

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]

- (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)]

- (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
Permits Branch, Office of Air Quality

100 North Senate Avenue
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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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
Permits Branch, Office of Air Quality

100 North Senate Avenue
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
Permits Branch, Office of Air Quality
100 North Senate Avenue
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]

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]

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]

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]

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]

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]

- (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
Asbestos Section, Office of Air Quality
100 North Senate Avenue
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 Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.

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

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

- (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 Data Section, Office of Air Quality
100 North Senate Avenue
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]

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)]

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 Branch, Office of Air Quality
100 North Senate Avenue
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]

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)]

- (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]

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]

- (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]

- (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 and 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]

- (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]

- (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 Data Section, Office of Air Quality
100 North Senate Avenue
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.

Stratospheric Ozone Protection

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

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/m³

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 $\sum N_i h_i$ stacks shall be calculated by weighing each stack height with its particulate matter emission rate as follows:

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

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

where: Pa = the actual controlled emissions rate in lb/mmBtu using the emission factor from 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 (SO₂) [326 IAC 7-1.1-1] [326 IAC 7-2-1]

Pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) the SO₂ 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 or a sulfur content of less than or equal to 0.5 percent when using distillate oil. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a thirty (30) day rolling weighted average.

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

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 (SO₂) 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 1,000 gallons of No. 2 distillate fuel oil burned shall be equivalent to 0.014 MMCF of natural gas based on SO₂ 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)]

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

- (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

- (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

- (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 SO₂ emission limit and fuel 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 since last compliance determination period and equivalent sulfur dioxide emissions;

- (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

- (a) 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]

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]

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 (SO₂) 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 hydrodesulfurization 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 (SO₂) 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂.

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 SO₂ 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 SO₂ 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 SO₂ emission rate; and
(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO₂ 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 SO₂ 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 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 SO₂ 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 30th 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]

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]

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

- (a) 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) Two (2) dry material mixing and blending operations, identified as Room 1101 (S-9) and Room 1102 (S-10) located in Building 122, with a maximum capacity of 693 and 926 lbs/hr, respectively, each controlled by a dust collector for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system for equipment/rooms controlled by dust collector # 29688.
- (e) Three (3) core pressing units, identified as Room 1109 (S-13), Room 1111 (S-14), and Room 1113 (S-15), each with maximum capacity of 354 lbs/hr, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688.
- (f) 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]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emission rate from the Emission units S-9, S-10, S-13 through S-16, and S-30 shall be limited as follows:

Emission Unit	Process Weight Rate (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
S-9 (Pharmacy A)	693	2.01
S-10 (Pharmacy B)	926	2.45
S-13 (Press room 1109)	354	1.28
S-14 (Press room 1111)	354	1.28
S-15 (Press room 1113)	354	1.28
S-30 (Tablet coating)	30.97	0.551

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:

$$E = 55.0 P^{0.11} - 40$$

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

Pursuant to 326 IAC 6-3-2(e)(2), the particulate matter emissions for processes with process weight rate of equal to or less than 100 lb/hr are limited to 0.551 lbs/hr

Compliance Determination Requirements

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

In order to comply with Condition D.3.1, the dust collectors for PM control shall be in operation at all times when the Emission units S-9, S-10, S-13 through S-16, and S-30 are 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) Two (2) dry material weigh rooms, identified as Room 1107 (S-11) and 1108 (S-12) located in Building 122, with a maximum capacity of 10 and 45.3 lbs/hr, respectively, each controlled by a dust collector for PM control, identified as # 29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688. [326 IAC 6-3-2]
 - (2) Four (4) core pressing units, identified as Room 1120 (S-16), Room 1122 (S-17), Room 1121 (S-18), and Room 1120 (S-19), with a maximum capacity of 120, 261, 235, and 179 lbs/hr, respectively, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688. [326 IAC 6-3-2]
 - (3) Two (1) tablet coating units (1-pan coaters #1 and #2), identified as Room 1112 (S-20), for presses S-13 through S-16 located in Building 122, with a maximum capacity of 874 lbs/hr, controlled by two (2) dust collectors for PM control, identified as #29680 and #29681, and exhausting through two (2) stacks SV-11 and SV-12. [326 IAC 6-3-2]
 - (4) Four (4) tablet coating units (1-pan coater #5, #4, #3, and #6), identified as Room 1125 (S-21), 1124 (S-22), 1117 (S-23), and 1123 (S-25), for presses S-17 through S-19, with a combined maximum capacity of 654 lbs/hr, each controlled by a dust collector for PM control, identified as # 29684, #29683, #29682, and #29691, respectively, and each exhausting through a stack identified as SV-13, 14, 15, and 17, respectively. [326 IAC 6-3-2]
 - (5) 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]
 - (6) 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]
 - (7) 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]
 - (8) 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]
 - (9) 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]

- (10) 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]
 - (11) Pharmaceutical packaging lines 1, 2, 3, 5, and 6 identified as S-6 (Building 122), with a maximum capacity of 442 lbs/hr from lines that are exhausted to dust collector (3 and 6), and controlled by a dust collector for PM identified as #29687. [326 IAC 6-3-2]
 - (12) Pharmaceutical packaging lines 7, 8, 9, 11 and 14 identified as S-6 (Building 124), with a maximum capacity of 2336 lbs/hr, and controlled by a dust collector for PM identified as #29703. [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)
S-16 (Press room 1106)	120	0.62
S-17 (Press room 1122)	261	1.04
S-18 (Press room 1121)	235	0.97
S-19 (Press room 1120)	179	0.81
S-20 (Coating room 1112)	874	2.35
S-21 (Coating room 1125) S-22 (Coating room 1124) S-23 (Coating room 1117) S-25 (Coating room 1123)	654	1.94
Pharmaceutical Packaging Lines (Building 122)	442	1.49
Pharmaceutical Packaging Lines (Building 124)	2336	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:

$$E = 55.0 P^{0.11} - 40$$

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 Emission units S-11, S-12, 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]

- (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.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Mead Johnson & 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 BRANCH
100 North Senate Avenue
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

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

Source Name: Mead Johnson & 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

- This is an emergency as defined in 326 IAC 2-7-1(12)
- 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 Section); and
 - 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

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 Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , 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:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION**

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

Source Name: Mead Johnson & 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 DATA SECTION**

FESOP Quarterly Report

Source Name: Mead Johnson & 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 DATA SECTION**

FESOP Quarterly Report

Source Name: Mead Johnson & 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 SO₂ 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 SO₂ 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			

9 No deviation occurred in this quarter.

9 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 DATA SECTION**

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

Source Name: Mead Johnson & 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 ΔNo 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	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Addendum to the
Technical Support Document (TSD) for a New Source Review and Federally Enforceable
State Operating Permit (FESOP) Renewal

Source Name:	Mead Johnson & Company
Source Location:	State Route 62 East, Mt. Vernon, IN 47620
County:	Posey
SIC Code:	2834
Operation Permit No.:	F129-13970-00021
Operation Permit Issuance Date:	February 20, 2002
Permit Renewal No.:	F129-23109-00021
Permit Reviewer:	Adeel Yousuf / EVP

On August 30, 2006, the Office of Air Quality (OAQ) had a notice published in the Mt. Vernon Democrat, Mt. Vernon, Indiana, stating that Mead Johnson & Company had applied for the construction and operation of a new tablet coating operation and renewal of the FESOP permit at this stationary pharmaceutical packaging and research and development source. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On September 18, 2006, David A. Stuckey, CHMM, Environmental, Health and Safety Manager at Mead Johnson & Company, submitted comments on the proposed FESOP. The summary of the comments and corresponding responses is as follows (bolded language has been added and the language with a line through it has been deleted):

Comment 1

The description given for Boiler S-27 on page 5 of 51 of the permit states that it was installed in 2004. The boiler was permitted under First Significant Permit Revision No. 129-18476-00021 that was issued on April 28, 2004, however, construction on the boiler did not commence until August 2005. The source description should be revised accordingly. Similar revisions are needed on page 25 of 51, and in the Technical Support Document (TSD) on pages 1 of 19 and 9 of 19.

Response 1

Sections A.2 and D.1 of the permit have been revised to list the correct installation date of Boiler S-27.

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

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

- (b) One (1) natural gas fired boiler installed in ~~2004~~ **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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (b) One (1) natural gas fired boiler installed in ~~2004~~ **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.)

See "Response to TSD Comments" for changes to the Technical Support Document.

Comment 2

The description given for one granulator and one Glatt 120 fluid-bed dryer on page 6 of 51 should be revised to delete the extraneous term ", and" following "fluid-bed dryer" in the second sentence. Similar revisions are needed on page 40 of 51, and in the TSD on page 3 of 19.

Response 2

Sections A.3 and D.4 of the permit have been revised to delete the extraneous term ", and" as requested.

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

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):

- (5) 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, ~~and~~ controlled by Torit fabric filter/dust collector #29693. [326 IAC 6-3-2]

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):

- (5) 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, ~~and~~ controlled by Torit fabric filter/dust collector #29693. [326 IAC 6-3-2]

Comment 3

Condition B.13 describes general Preventive Maintenance Plan requirements. To clarify our obligation as to when a PMP is required, we ask that Condition B.13, section (a) be revised as follows:

If required by specific condition(s) of Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:

(1) Identification of the

Response 3

Condition B.13 has been revised as requested to insert the more specific language requiring Preventive Maintenance Plan (PMP) only when listed in Section D. As a result of this change, a PMP condition for Boilers S-1, S-2 and S-27, will be added in Section D.1 of the permit.

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

(a) ~~The Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the sources as described in 326 IAC 1-6-3. At a minimum, the PMPs shall include:~~ **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:**

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

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

All the subsequent D conditions were re-numbered and references updated as a result of this change.

Comment 4

Condition C.2 describes overall source emission limits. Section (a)(1) should be revised to delete the term “, except particulate matter (PM),”. The potential to emit for all regulated pollutants must be held below major source thresholds; e.g., 100 tons per year (tpy) in the case of PM, in order for the FESOP to be entirely effective. Condition C.2, section (b) is unnecessary given the immediately preceding comment and can be deleted.

Response 4

PM is not a regulated pollutant under 326 IAC 2-7 (Part 70), therefore PM does not need to be limited to less than the Part 70 major source threshold of 100 tons per year. However, PM is a regulated pollutant under 326 IAC 2-2 (PSD), and therefore is limited below the major source threshold of 250 tons per year in Condition C.2(b). No change will be made as a result of this comment.

Comment 5

On page 40 of 51, the word “Building” under the source description (a)(7) is misspelled.

Response 5

Sections A.3 and D.3 of the permit have been revised to correct this spelling error as follows:

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

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):

- (7) Tablet coating unit (1-pan coater) located in ~~Buildig~~ **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]

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):

- (7) Tablet coating unit (1-pan coater) located in ~~Buildig~~ **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]

TSD Comments

1. The italicized note appended to the description of three core pressing units on page 2 of 19 in the TSD refers to four dry material mixing units. This note should be revised to refer to three core pressing units.
2. Note 4 to the Potential to Emit After Issuance table on page 7 of 19 in the TSD cites a baghouse control efficiency of 95 percent in reference to PM/PM10 emissions from emission units S-9, S-10, and S-13 through S-15. The noted control efficiency should be revised to 99 percent to agree with the entries on the emission summary table on page 16 of 19.
3. On the emission summary table on page 16 of 19 in the TSD, it would appear that the values listed in the column titled "Controlled PM Emissions (lb/hr)", with the exception of S-30 Tablet Coating, are based on the uncontrolled hourly emission rate and a control efficiency of only 95 percent. The controlled PM emission rate for each listed source should be revised to reflect a 99 percent control efficiency as listed in that table column.
4. The change in controlled hourly PM emission rates described in Item 8 will affect several values listed on the Potential to Emit After Issuance table on page 7 of 19 in the TSD. The annual PM and PM10 emission rates for S-9 and S-10 should be revised from 1.28 tpy to 0.26 tpy. The contribution to the annual PM and PM10 emission rates for insignificant activities due to pharmaceutical production related sources is 0.27 tpy.

Response to TSD Comments

OAQ agrees with the request to correct the minor typographical errors in the TSD. However, OAQ prefers that the Technical Support Document reflect the permit that was on public notice. Changes to the technical support document that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. The TSD should have read as follows:

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted 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 ~~2004~~ **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.

- (e) Three (3) core pressing units, identified as Room 1109 (S-13), Room 1111 (S-14), and Room 1113 (S-15), each with maximum capacity of 354 lbs/hr, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688.

*Note: ~~Four (4)~~ **Three (3)** dry material mixing units identified as S-13, S-14, and S-15, were reviewed as insignificant activities under FESOP renewal 129-13970-00021. These operations are determined to be significant activities during this FESOP renewal process, due to the fact that the potential PM/PM10 emissions from each of the units is greater than 5 tons per year.*

Insignificant Activities

The source also consists of the following insignificant activities, 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):

- (5) 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, ~~and~~ controlled by Torit fabric filter/dust collector #29693. [326 IAC 6-3-2]

Potential to Emit After Issuance

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 renewal permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Boilers S-1, S-2, and S-27 ⁽¹⁾	4.23	4.23	90.10 ⁽²⁾	2.94	44.92	53.47	0.96 (Hexane) 1.01 (total)
Incinerator S-7 ⁽³⁾	1.90	1.90	0.70	0.80	2.70	0.80	8.99 (HCl) 9.13 (total)
Dry Material Mixing Units (S-9 and S-10) ⁽⁴⁾	4.28 0.26	4.28 0.26	--	--	--	--	--
Core Pressing Units (S-13, S-14, and S-15) ⁽⁴⁾	0.18	0.18	--	--	--	--	--
Tablet Coating Unit (S-30) ⁽⁴⁾	0.10	0.10	--	--	--	--	0.02 (HCl) 0.02 (total)
Four (4) Emergency Generators ⁽⁵⁾	0.98	0.98	0.91	1.10	2.99	13.89	0.01 (Propylene) 0.02 (total)
Insignificant Activities ⁽⁶⁾	0.42	0.86	0.05	0.46	6.53	7.78	0.14 (Hexane) 0.15 (total)
Total Emissions	9.09 8.07	9.53 8.51	91.76	5.30	57.14	75.94	9.01 (HCl) 10.33 (total)

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) SO₂ 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%~~ **99%**. 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, coating, and packaging lines.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

The particulate matter (PM) emissions from the following processes shall be limited by the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (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

Pursuant to 326 IAC 6-3-2(e)(2), particulate matter emissions for processes with a process weight rate of equal to or less than 100 lb/hr are limited to 0.551 lbs/hr.

Emission Unit	Process Weight Rate (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency %	Controlled PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
S-9 (Pharmacy A)	693	2.50	99	0.125 0.025	2.01
S-10 (Pharmacy B)	926	3.34	99	0.167 0.0334	2.45
S-11 (Weigh room 1107)	10	0.0091	99	4.45E-4 9.1E-05	0.551
S-12 (Weigh room 1108)	45.3	0.045	99	2.25E-3 4.5E-4	0.551
S-13 (Press room 1109)	354	1.38	99	0.06 0.0138	1.28
S-14 (Press room 1111)	354	1.38	99	0.06 0.0138	1.28
S-15 (Press room 1113)	354	1.38	99	0.06 0.0138	1.28
S-16 (Press room 1106)	120	0.47	99	0.02 .0047	0.62
S-17 (Press room 1122)	261	1.02	99	0.051 0.0102	1.04
S-18 (Press room 1121)	235	0.92	99	0.046 0.0092	0.97
S-19 (Press room 1120)	179	0.70	99	0.035 0.007	0.81
S-20 (Coating room 1112)	874	0.87	99	0.043 0.0087	2.35
S-21 (Coating room 1125) S-22 (Coating room 1124) S-23 (Coating room 1117) S-25 (Coating room 1123)	654*	0.65	99	0.032 0.0065	1.94
S-30 (Tablet coating)	30.97	2.31	99	0.02	0.551
Pharmaceutical Packaging Lines (Building 122)	442	0.004	99	2.0E-4 4.0E-5	1.49
Pharmaceutical Packaging Lines (Building 124)	2336	0.02	99	4.0E-3 0.0002	4.55
Granulator	98	0.10	99	4.5E-3 0.001	0.551
Glatt 120 fluid bed dryer	98	0.49	99	0.0215 0.0049	0.551
Tablet Coater (Building 121, Room 116c)	50	0.05	99	2.2E-3 0.0005	0.551
Tablet Coater (Building 121, Room 1023)	50	0.05	99	2.0E-3 0.0005	0.551
Tablet Core Press (Building 121, Room 116c)	80	0.31	99	0.0137 0.0031	0.551
Tablet Core Press (Building 121, Room 1014)	80	0.31	99	0.0137 0.0031	0.551
Small Weigh Room	1237	0.12	99	0.0054 0.0012	2.97

* These units have combined process weight rate due to design of operation.

Upon further consideration, IDEM, OAQ has decided to make following change to the permit.

1. Since all the conditions in a FESOP are federally enforceable, the Condition C.8 has been modified as follows.

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

- (g) Indiana Accredited 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 Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. ~~The requirement to use an Indiana Accredited Asbestos inspector is not federally enforceable.~~

Appendix A: Emission Calculations

Company Name: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 10/04/06

Uncontrolled/Unlimited Potential Emissions (tons/year)									
Emissions Generating Activity									
Pollutant	Dry Material Mixing Unit S-9 and S-10	Core Pressing Units S-13, S-14, and S-15	Natural Gas Combustion Boilers S-1 and S-2	No. 2 Oil Combustion Boilers S-1 and S-2	Emergency Generators Diesel Combustion	Incinerator	Tablet Coating S-30	Insignificant Activities*	TOTAL
PM	25.53	18.15	1.02	7.64	0.98	3.80	10.12	27.10	93.32
PM10	25.53	18.15	4.06	7.64	0.98	3.80	10.12	27.54	93.76
SO2	0.00	0.00	0.32	162.70	0.91	1.40	0.00	0.05	165.06
NOx	0.00	0.00	53.47	76.39	13.89	1.60	0.00	7.78	99.66
VOC	0.00	0.00	2.94	2.94	1.10	1.60	0.00	0.46	6.10
CO	0.00	0.00	44.92	44.92	2.99	5.50	0.00	6.53	59.94
total HAPs	0.00	0.00	1.01	0.03	0.02	18.61	0.64	0.15	20.42
worst case single HAP	0.00	0.00	(Hexane) 0.962	(Selenium) 0.0080	(Propylene) 0.0081	(HCl) 18.34	(HCl) 0.64	(Hexane) 0.14	(HCl) 18.98
Total emissions based on rated capacity at 8,760 hours/year.									
Controlled/Limited Potential Emissions (tons/year)									
Emissions Generating Activity									
Pollutant	Dry Material Mixing Unit S-9 and S-10	Core Pressing Units S-13, S-14, and S-15	Natural Gas Combustion Boilers S-1 and S-2	No. 2 Oil Combustion Boilers S-1 and S-2	Emergency Generators Diesel Combustion	Incinerator***	Tablet Coating S-30	Insignificant Activities*	TOTAL
PM	0.26	0.18	1.02	4.23	0.98	1.90	0.10	0.42	8.07
PM10	0.26	0.18	4.06	4.23	0.98	1.90	0.10	0.86	8.51
SO2	0.00	0.00	0.32	90.10	0.91	0.70	0.00	0.05	91.76
NOx	0.00	0.00	53.47	42.30	13.89	0.80	0.00	7.78	75.94
VOC	0.00	0.00	2.94	0.42	1.10	0.80	0.00	0.46	5.30
CO	0.00	0.00	44.92	10.58	2.99	2.70	0.00	6.53	57.14
total HAPs	0.00	0.00	1.01	0.01	0.02	9.13	0.02	0.15	10.33
worst case single HAP	0.00	0.00	(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.									

* 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.

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

Technical Support Document (TSD) for a New Source Review and Federally Enforceable
State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Mead Johnson & Company
Source Location:	State Route 62 East, Mt. Vernon, IN 47620
County:	Posey
SIC Code:	2834
Operation Permit No.:	F129-13970-00021
Operation Permit Issuance Date:	February 20, 2002
Permit Renewal No.:	F129-23109-00021
Permit Reviewer:	Adeel Yousuf / EVP

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Mead Johnson & Company relating to the construction and operation of a new tablet coating operation at this stationary pharmaceutical packaging and research and development source. Mead Johnson & Company was issued FESOP renewal permit (F129-13970-00021) on February 20, 2002 that will expire on February 20, 2007.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted 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 2004, 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) Two (2) dry material mixing and blending operations, identified as Room 1101 (S-9) and Room 1102 (S-10) located in Building 122, with a maximum capacity of 693 and 926 lbs/hr, respectively, each controlled by a dust collector for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system for equipment/rooms controlled by dust collector # 29688.
Note: Two (2) dry material mixing units identified as S-9 and S-10 were reviewed as insignificant activities under FESOP renewal 129-13970-00021. These operations are determined to be significant activities during this FESOP renewal process, due to the fact that the potential PM/PM10 emissions from each of the units is greater than 5 tons per year.

- (e) Three (3) core pressing units, identified as Room 1109 (S-13), Room 1111 (S-14), and Room 1113 (S-15), each with maximum capacity of 354 lbs/hr, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688.

Note: Four (4) dry material mixing units identified as S-13, S-14, and S-15, were reviewed as insignificant activities under FESOP renewal 129-13970-00021. These operations are determined to be significant activities during this FESOP renewal process, due to the fact that the potential PM/PM10 emissions from each of the units is greater than 5 tons per year.

New Emission Units and Pollution Control Equipment

The source consists of the following new emission unit and pollution control device:

- (a) 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.

Unpermitted Emission Units and Pollution Control Equipment

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

Insignificant Activities

The source also consists of the following insignificant activities, 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) Two (2) dry material weigh rooms, identified as Room 1107 (S-11) and 1108 (S-12) located in Building 122, with a maximum capacity of 10 and 45.3 lbs/hr, respectively, each controlled by a dust collector for PM control, identified as # 29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688. [326 IAC 6-3-2]
 - (2) Four (4) core pressing units, identified as Room 1120 (S-16), Room 1122 (S-17), Room 1121 (S-18), and Room 1120 (S-19), with a maximum capacity of 120, 261, 235, and 179 lbs/hr, respectively, each controlled by a baghouse for particulate control, identified as #29687, exhausting through one (1) stack SV-9, and also equipped with a central vacuum system used for equipment/rooms controlled by a dust collector # 29688. [326 IAC 6-3-2]
 - (3) Two (1) tablet coating units (1-pan coaters #1 and #2), identified as Room 1112 (S-20), for presses S-13 through S-16 located in Building 122, with a maximum capacity of 874 lbs/hr, controlled by two (2) dust collectors for PM control, identified as #29680 and #29681, and exhausting through two (2) stacks SV-11 and SV-12. [326 IAC 6-3-2]

- (4) Four (4) tablet coating units (1-pan coater #5, #4, #3, and #6), identified as Room 1125 (S-21), 1124 (S-22), 1117 (S-23), and 1123 (S-25), for presses S-17 through S-19, with a combined maximum capacity of 654 lbs/hr, each controlled by a dust collector for PM control, identified as # 29684, #29683, #29682, and #29691, respectively, and each exhausting through a stack identified as SV-13, 14, 15, and 17, respectively. [326 IAC 6-3-2]
 - (5) 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, and controlled by Torit fabric filter/dust collector #29693. [326 IAC 6-3-2]
 - (6) 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]
 - (7) 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]
 - (8) 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]
 - (9) 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]
 - (10) 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]
 - (11) Pharmaceutical packaging lines 1, 2, 3, 5, and 6 identified as S-6 (Building 122), with a maximum capacity of 442 lbs/hr from lines that are exhausted to dust collector (3 and 6), and controlled by a dust collector for PM identified as #29687. [326 IAC 6-3-2]
 - (12) Pharmaceutical packaging lines 7, 8, 9, 11 and 14 identified as S-6 (Building 124), with a maximum capacity of 2336 lbs/hr, and controlled by a dust collector for PM identified as #29703. [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.
- (e) The following VOC storage containers:
- (1) Two (2) 20,000 gallon underground storage tanks 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.
- (f) 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.
- (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]

Existing Approvals

The source was issued a FESOP F129-13970-00021 on February 20, 2002. The source has since received the following:

- (a) First Administrative Amendment No.: 129-16205-00021, issued on November 4, 2002.
- (b) Second Administrative Amendment No.: 129-16765-00021, issued on December 13, 2002.
- (c) Third Administrative Amendment No.: 129-17788-00021, issued on August 6, 2003.
- (d) First Minor Permit Revision No.: 129-18395-00021, issued on December 3, 2003.
- (e) First Significant Permit Revision No.: 129-18476-00021, issued on April 28, 2004.
- (f) Fourth Administrative Amendment No.: 129-18910-00021, issued on May 26, 2004.
- (g) Fifth Administrative Amendment No.: 129-22612-00021, issued on February 15, 2006.

All conditions from previous approvals were incorporated into this FESOP.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

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

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

An administratively complete FESOP renewal application for the purposes of this review was received on May 10, 2006.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 13).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in the previous FESOP.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	88.51
PM-10	88.95
SO ₂	165.06
VOC	6.10
CO	59.94
NO _x	99.66

HAPs	Unrestricted Potential Emissions (tons/yr)
Hydrochloric Acid	18.98
Hexane	1.10
Others	0.34
Total	20.42

- (a) The unrestricted potential emissions of SO₂ are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.
- (b) The unrestricted potential emissions of any single HAP is equal to or greater than ten (10) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7. The source will be issued a FESOP because the source will limit its emissions below the Title V levels.
- (c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other regulated pollutants is less than 100 tons per year.
- (d) Fugitive Emissions
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

Potential to Emit After Issuance

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 renewal permit.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs
Boilers S-1, S-2, and S-27 ⁽¹⁾	4.23	4.23	90.10 ⁽²⁾	2.94	44.92	53.47	0.96 (Hexane) 1.01 (total)
Incinerator S-7 ⁽³⁾	1.90	1.90	0.70	0.80	2.70	0.80	8.99 (HCl) 9.13 (total)
Dry Material Mixing Units (S-9 and S-10) ⁽⁴⁾	1.28	1.28	--	--	--	--	--
Core Pressing Units (S-13, S-14, and S-15) ⁽⁴⁾	0.18	0.18	--	--	--	--	--
Tablet Coating Unit (S-30) ⁽⁴⁾	0.10	0.10	--	--	--	--	0.02 (HCl) 0.02 (total)
Four (4) Emergency Generators ⁽⁵⁾	0.98	0.98	0.91	1.10	2.99	13.89	0.01 (Propylene) 0.02 (total)
Insignificant Activities ⁽⁶⁾	0.42	0.86	0.05	0.46	6.53	7.78	0.14 (Hexane) 0.15 (total)
Total Emissions	9.09	9.53	91.76	5.30	57.14	75.94	9.01 (HCl) 10.33 (total)

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) SO₂ 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, coating, and packaging lines.

County Attainment Status

The source is located in Posey County.

Pollutant	Status
PM-10	Attainment
PM-2.5	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and nitrogen oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Posey County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Posey County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) Posey County has been classified as attainment or unclassifiable for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Source Status

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

Pollutant	Emissions (tons/yr)
PM	Less than 100
PM-10	Less than 100
SO ₂	Less than 100
VOC	Less than 100
CO	Less than 100
NO _x	Less than 100
Single HAP	Less than 10
Combination HAPs	Less than 25

- (a) This existing source is not a major stationary source for PSD review because no attainment regulated pollutant is emitted at a rate of 250 tons per year or greater and it is not in one of the 28 listed source categories.

Federal Rule Applicability

- (a) The requirements of 40 CFR Part 64, Compliance Assurance Monitoring, are not applicable to this source. Generally, such requirements apply to a Part 70 source that involves a pollutant-specific emissions unit (PSEU), as defined in 40 CFR 64.1, which meets the following criteria:
 - (1) The unit is subject to an emission limitation or standard for an applicable regulated air pollutant;
 - (2) The unit uses a control device as defined in 40 CFR 64.1 to comply with that emission limitation or standard; and
 - (3) The unit has a potential to emit before controls equal to or greater than the applicable Part 70 major source threshold for the regulated pollutant.

As a FESOP source, this source has accepted federally enforceable limits such that the requirements of 326 IAC 2-7 (Part 70) do not apply. Therefore, the requirements of 40 CFR 64, Compliance Assurance Monitoring, are not included in this permit.

- (b) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) for the two (2) boilers (S-1 and S-2) constructed in 1970, each rated at 30.64 MMBtu per hour, are not included in the permit because each boiler was constructed prior to the rule applicability date of June 9, 1989.
- (c) The one (1) 60.8 MMBtu/hr boiler, identified as S-27, burning natural gas and No. 2 fuel oil as backup fuel, constructed in 2004, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c - 60.48c, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units) because it was constructed after June 9, 1989, and has a maximum design heat input capacity greater than 10 MMBtu per hour and less than 100 MMBtu per hour. Therefore, the requirements of the 40 CFR 60.40c, Subpart Dc are included in the permit.

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

Non applicable portions of the NSPS will not be included in the permit. The boiler, identified as B4 is subject to the following portions of Subpart Dc.

- (a) 40 CFR 60.40c (a) through (d);
- (b) 40 CFR 60.41c;
- (c) 40 CFR 60.42c (d), (f), (g), (h)(1), (i), and (j);
- (d) 40 CFR 60.43c (c) and (d);
- (e) 40 CFR 60.44c (a), (g), and (h);
- (f) 40 CFR 60.45c (c);
- (g) 40 CFR 60.46c (e);
- (h) 40 CFR 60.47c (c); and
- (i) 40 CFR 60.48c (a), (d), (e) (1) through (3) & (11), (f) (1)&(2), and (g) through (j).

The provisions of 40 CFR 60 Subpart A – General Provisions apply to the facility described in this section except when otherwise specified in 40 CFR 60 Subpart Dc.

- (d) The requirements the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20, (40 CFR Part 63, Subpart DDDDD) for the three (3) boilers identified as S-1, S-2, and S-27 are not included in the permit because this source is not a major source of HAP. The source has chosen to limit the source wide emissions of any combination of HAPs and any single HAP to less than 25 and 10 tons per twelve (12) consecutive month period, respectively.
- (e) The requirements of New Source Performance Standard, 326 IAC 12, 40 CFR Part 60.112b, Subpart Kb (Volatile Organic Liquid Storage Vessels) are not included in the permit for the two (2) 20,000 gallon No. 2 fuel oil storage tanks. Although, each tank is being constructed after the rule applicability date of July 23, 1984 and has storage capacity which is between 75 m³ and 151 m³, the vapor pressure of No. 2 fuel oil being stored in each tank is less than 3.5 kPa, therefore the rule is not included in this permit.

- (f) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.112b, Subpart Kb) are not included in the permit for the five (5) diesel fuel and one (1) gasoline storage tanks, identified as insignificant activities, because the storage capacity of each tank is less than seventy-five (75) cubic meters.
- (g) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.50, Subpart E - Standards of Performance for Incinerators) are not included for the one (1) natural gas fired incinerator (S-4) with maximum charge capacity of 350 pounds per hour, because the maximum charge capacity of this incinerator is below the rule applicability threshold of 50 tons per day.
- (h) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.50, Subpart Ec - Standards of Performance for Hospital/Medical/Infectious Waste Incinerators for which Construction is Commenced After June 20, 1996) are not included for the one (1) natural gas fired incinerator (S-4) with maximum charge capacity of 350 pounds per hour, because it only burns pathological waste.

Pursuant to 40 CFR 60.50c(b), a combustor or incinerator is not subject to this subpart during periods when only pathological waste as defined in 40 CFR 60.51c is burned, provided the Permittee:

- (1) Notifies the Administrator of an exemption claim; and
 - (2) Keeps records on a calendar quarter basis of the periods of time when only pathological waste is burned.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants, 40 CFR Part 63, Subpart EEE (National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors) (326 IAC 20-28) are not included in the permit for the Incinerator (S-4) because this incinerator does not combust any hazardous air pollutants.
 - (j) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60, Subpart DDDD – Emission Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction On or Before November 30, 1999) are not included in the permit for the one (1) natural gas fired incinerator (S-4) because it only burns pathological waste.

Pursuant to 40 CFR 60.2555, incineration units burning 90 percent or more by weight (on a calendar quarter basis and excluding the weight of auxiliary fuel and combustion air) of pathological waste, low-level radioactive waste, and/or chemotherapeutic waste as defined in 40 CFR 60.2875 are not subject to the requirements of Subpart DDDD if the permittee meets the following two requirements:

- (1) Notify the Administrator that the unit meets these criteria.
 - (2) Keep records on a calendar quarter basis of the weight of pathological waste burned in the unit.
- (k) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.1000, Subpart AAAA - Standards of Performance for New Stationary Sources: Small Municipal Waste Combustion Units) are not included for the one (1) natural gas fired incinerator (S-4) with maximum charge capacity of 350 pounds per hour, because the maximum charge capacity of this incinerator is below the rule applicability threshold of 35 tons per day.

- (l) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.2000, Subpart CCCC - Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999 or for Which Modification or Reconstruction is Commenced On or After June 1, 2001) are not included for the one (1) natural gas fired incinerator (S-4) because the incinerator was constructed in 1996, prior to the rule applicability date of 1999, and has not been reconstructed or modified since the original construction date.
- (m) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR Part 60.2880, Subpart EEEE - Standards of Performance for Other Solid Waste Incineration Units for Which Construction Is Commenced After December 9, 2004, or for Which Modification or Reconstruction Is Commenced on or After June 16, 2006) are not included for the one (1) natural gas fired incinerator (S-4) because the incinerator was constructed in 1996, prior to the rule applicability date of 2004, and has not been reconstructed or modified since the original construction date.

State Rule Applicability – Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration, PSD)

The existing source was constructed prior to the August 7, 1977 rule applicability date. This source is not considered a major source because it is not one of the 28 listed source categories and it has the potential to emit of less than 250 tons per year of all criteria pollutant. As a FESOP source, the total source wide SO₂ emissions and single HAP emissions shall be limited to less than 100 and 10 tons per year, respectively (see 326 IAC 2-8-4 (FESOP) below for details of emission limits). Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration, PSD) shall not apply.

326 IAC 2-4.1-1 (New Source Toxics Control)

This source is not subject to 326 IAC 2-4.1-1 (New Source Toxics Control) because it has limited and will continue to limit source-wide single HAP emissions to less than 10 tons per year (See 326 IAC 2-8-4 (FESOP) below for details). A new emission unit (S-30), being added in this permit after the rule applicability date of July 27, 1997, is also not subject to the rule because the PTE of any single HAP or total HAPs is less than 10 and 25 tons per year, respectively.

326 IAC 2-8-4 (FESOP)

This source is subject to 326 IAC 2-8-4 (FESOP). Pursuant to this rule, the following conditions shall apply:

- (a) 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. This is equivalent to Hydrochloric acid (HCl) emissions of 8.99 tons per year from the incinerator and less than 10 tons per year from the entire source.
- (b) The total usage of No. 2 distillate fuel oil and No. 2 distillate fuel oil equivalents for boilers S-1, S-2, and S-27, shall be limited to 4,230,000 U.S. gallons per twelve (12) consecutive month period.
- (c) Sulfur content of No. 2 distillate fuel oil shall not exceed 0.3% by weight. This limitation in combination with the limitation in (b) above is equivalent to SO₂ 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.

Compliance with above conditions shall limit the source-wide SO₂ and single HAP emissions to less than 100 and 10 tons per twelve consecutive month period with compliance determined at the end of each month, respectively. Therefore, the requirements of 326 IAC 2-7 (Part 70) do not apply.

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 or Porter counties, 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.

326 IAC 5-1 (Opacity Limitations)

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

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

State Rule Applicability – Individual Facilities

326 IAC 4-2-2 (Incinerators)

The natural gas fired incinerator (S-4) is subject to the requirements of 326 IAC 4-2-1. Pursuant to 326 IAC 4-2-2 (Incinerators), 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) above 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.

326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating)

The two (2) natural gas fired boilers (S-1 and S-2), each with a maximum capacity of 30.64 MMBtu/hr and constructed in 1970, are subject to the particulate limitations of 326 IAC 6-2. Pursuant to 326 IAC 6-2-3(b), the particulate emissions from indirect heating facilities which were existing and in operation on or before June 8, 1972, shall be limited by the following equation:

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

where

- C = 50 μ /m³
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:

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

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

where: P_a = the actual controlled emissions rate in lb/mmBtu using the emission factor from 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.

For boilers S-1 and S-2, both constructed before 1972 ($Q = 30.64 + 30.64 = 61.28$ mmBtu/hr)
 $P_t = (50 \times 0.67 \times 36) / (76.5 \times 61.28^{0.75} \times 2^{0.25}) = 0.60$ lbs PM/mmBtu

Compliance calculation:

$(3.83 \text{ tons PM/yr}) \times (\text{hr}/61.28 \text{ MMBtu}) \times (\text{yr}/8,760 \text{ hrs}) \times (2,000 \text{ lbs/ton}) = 0.0142 \text{ lbs PM/MMBtu}$

Actual lbs PM/MMBtu (0.0142) is less than allowable lbs PM/MMBtu (0.60), therefore the boilers will comply with the requirements of 326 IAC 6-2-3.

326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating)

Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), the particulate emissions from one (1) 60.8 MMBtu/hr boiler (S-27) constructed after September 21, 1983 shall be limited using the following equation:

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

where: P_t = pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input
 Q = Total source maximum operating capacity rating in MMBtu/hr heat input.
 $Q = 30.64 + 30.64 + 60.8 = 122.08$

$$P_t = (1.09/122.08^{0.26}) = 0.312 \text{ lbs PM/MMBtu}$$

Therefore, particulate emissions from the 60.8 MMBtu/hr boiler shall not exceed 0.312 lb/MMBtu.

Compliance calculation:

$(3.80 \text{ tons PM/yr}) \times (\text{hr}/60.8 \text{ MMBtu}) \times (\text{yr}/8,760 \text{ hrs}) \times (2,000 \text{ lbs/ton}) = 0.0142 \text{ lbs PM/MMBtu}$

Actual lbs PM/MMBtu (0.0142) is less than allowable lbs PM/MMBtu (0.312), therefore the boiler can comply with the requirements of 326 IAC 6-2-4.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

The three (3) natural gas-fired boilers (S-1, S-2, and S-27) using No. 2 fuel oil as back-up fuel are subject to 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations). Pursuant to 326 IAC 7-1.1-2, sulfur dioxide emissions from the three (3) boilers using No. 2 fuel oil shall be limited to 0.5 pounds per million BTU heat input when using No. 2 fuel oil. This equates to a fuel oil sulfur content limit of 0.50%. The facility will comply with this rule by limiting distillate oil sulfur content to 0.3% or less pursuant to 326 IAC 2-8 (FESOP).

326 IAC 7-2-1 (Sulfur Dioxide Reporting Requirements)

Pursuant to this rule, the source shall submit reports of calendar month average sulfur content, heat content, fuel consumption, and sulfur dioxide emission rate (pounds SO₂ per MMBtu), to the OAQ upon request.

326 IAC 6-3-2 (Particulate emission limitations, work practices, and control technologies)

The particulate matter (PM) emissions from the following processes shall be limited by the following equation:

Interpolation of the data for the process weight rate up to sixty thousand (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

Pursuant to 326 IAC 6-3-2(e)(2), particulate matter emissions for processes with a process weight rate of equal to or less than 100 lb/hr are limited to 0.551 lbs/hr.

Emission Unit	Process Weight Rate (lb/hr)	Uncontrolled PM Emissions (lb/hr)	Control Efficiency %	Controlled PM Emissions (lb/hr)	Allowable PM Emissions (326 IAC 6-3-2) (lb/hr)
S-9 (Pharmacy A)	693	2.50	99	0.125	2.01
S-10 (Pharmacy B)	926	3.34	99	0.167	2.45
S-11 (Weigh room 1107)	10	0.0091	99	4.45E-4	0.551
S-12 (Weigh room 1108)	45.3	0.045	99	2.25E-3	0.551
S-13 (Press room 1109)	354	1.38	99	0.06	1.28
S-14 (Press room 1111)	354	1.38	99	0.06	1.28
S-15 (Press room 1113)	354	1.38	99	0.06	1.28
S-16 (Press room 1106)	120	0.47	99	0.02	0.62
S-17 (Press room 1122)	261	1.02	99	0.051	1.04
S-18 (Press room 1121)	235	0.92	99	0.046	0.97
S-19 (Press room 1120)	179	0.70	99	0.035	0.81
S-20 (Coating room 1112)	874	0.87	99	0.043	2.35
S-21 (Coating room 1125) S-22 (Coating room 1124) S-23 (Coating room 1117) S-25 (Coating room 1123)	654*	0.65	99	0.032	1.94
S-30 (Tablet coating)	30.97	2.31	99	0.02	0.551
Pharmaceutical Packaging Lines (Building 122)	442	0.004	99	2.0E-4	1.49
Pharmaceutical Packaging Lines (Building 124)	2336	0.02	99	1.0E-3	4.55
Granulator	98	0.10	99	4.5E-3	0.551
Glatt 120 fluid bed dryer	98	0.49	99	0.0215	0.551
Tablet Coater (Building 121, Room 116c)	50	0.05	99	2.2E-3	0.551
Tablet Coater (Building 121, Room 1023)	50	0.05	99	2.0E-3	0.551
Tablet Core Press (Building 121, Room 116c)	80	0.31	99	0.0137	0.551
Tablet Core Press (Building 121, Room 1014)	80	0.31	99	0.0137	0.551
Small Weigh Room	1237	0.12	99	0.0054	2.97

* These units have combined process weight rate due to design of operation.

The dust collectors for emission units S-9, S-10, S-13 through S-16, and S-30 shall be in operation at all times these emission units are in operation, in order to comply with this limit. The packed-bed scrubber shall be in operation at all times the tablet coating operation (S-30) is in operation, in order to comply with this limit.

326 IAC 8-3-2 (Cold Cleaner Operations)

- (a) The cold cleaning operations (Buildings 104 and 122) listed as insignificant activities, are subject to the requirements of 326 IAC 8-3-2 (Cold cleaner operation) since each was constructed after January 1, 1980. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations) for cold cleaning operations the owner or operator shall:
- (1) Equip the cleaner with a cover;
 - (2) Equip the cleaner with a facility for draining cleaned parts;
 - (3) Close the degreaser cover whenever parts are not being handled in the cleaner;
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (5) Provide a permanent, conspicuous label summarizing the operation requirements;
 - (6) 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.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

- (a) The cold cleaning operations (Buildings 104 and 122) listed as insignificant activities, are subject to the requirements of 326 IAC 8-3-5 since each was constructed after July 1, 1990. Pursuant to this rule, the Permittee shall comply with the following requirements for cold cleaner degreaser operation and control:
- (1) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the Permittee shall ensure that the following control equipment requirements are met:
 - (i) 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.
 - (ii) 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.

- (iii) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (iv) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (v) 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.
- (2) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (i) Close the cover whenever articles are not being handled in the degreaser.
 - (ii) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (iii) 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.

326 IAC 9-1-2 (Carbon monoxide Emission Limits)

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.

Incinerator (S-4) is equipped with a secondary chamber and therefore will comply with the rule requirements.

Testing Requirements

Testing is not required on any of the boilers because the emissions are determined based on US EPA's AP-42 emission factors and do not require a control device to meet any of the requirements.

Testing is not required on any of the other emission units at this source because they do not meet any of the criteria which would require a stack test.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

1. The three (3) Boilers (S-1, S-2, and S-27) have applicable compliance monitoring conditions as specified below:
 - (a) Visible emission notations of each boiler's stack exhaust shall be performed once per day during normal daylight operations when exhausting to the atmosphere and 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.

These monitoring conditions are necessary because the Boilers (S-1, S-2, and S-27) must operate properly to ensure compliance with 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this pharmaceutical packaging and research and development source and construction and operation of new emission S-30, shall be subject to the conditions of the attached proposed FESOP No.: F129-23109-00021.

Appendix A: Emission Calculations

Company Name: Mead Johnson & Company
 Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
 FESOP Renewal No.: 129-23109
 Plt ID: 129-00021
 Reviewer: Adeel Yousuf / EVP
 Date: 06/20/06

Uncontrolled/Unlimited Potential Emissions (tons/year)									
Emissions Generating Activity									
Pollutant	Dry Material Mixing Unit S-9 and S-10	Core Pressing Units S-13, S-14, and S-15	Natural Gas Combustion Boilers S-1 and S-2	No. 2 Oil Combustion Boilers S-1 and S-2	Emergency Generators Diesel Combustion	Incinerator	Tablet Coating S-30	Insignificant Activities*	TOTAL
PM	25.53	18.15	1.02	7.64	0.98	3.80	10.12	27.10	93.32
PM10	25.53	18.15	4.06	7.64	0.98	3.80	10.12	27.54	93.76
SO2	0.00	0.00	0.32	162.70	0.91	1.40	0.00	0.05	165.06
NOx	0.00	0.00	53.47	76.39	13.89	1.60	0.00	7.78	99.66
VOC	0.00	0.00	2.94	2.94	1.10	1.60	0.00	0.46	6.10
CO	0.00	0.00	44.92	44.92	2.99	5.50	0.00	6.53	59.94
total HAPs	0.00	0.00	1.01	0.03	0.02	18.61	0.64	0.15	20.42
worst case single HAP	0.00	0.00	(Hexane) 0.962	(Selenium) 0.0080	(Propylene) 0.0081	(HCl) 18.34	(HCl) 0.64	(Hexane) 0.14	(HCl) 18.98
Total emissions based on rated capacity at 8,760 hours/year.									
Controlled/Limited Potential Emissions (tons/year)									
Emissions Generating Activity									
Pollutant	Dry Material Mixing Unit S-9 and S-10	Core Pressing Units S-13, S-14, and S-15	Natural Gas Combustion Boilers S-1 and S-2	No. 2 Oil Combustion Boilers S-1 and S-2	Emergency Generators Diesel Combustion	Incinerator***	Tablet Coating S-30	Insignificant Activities*	TOTAL
PM	1.28	0.18	1.02	4.23	0.98	1.90	0.10	0.42	9.09
PM10	1.28	0.18	4.06	4.23	0.98	1.90	0.10	0.86	9.53
SO2	0.00	0.00	0.32	90.10	0.91	0.70	0.00	0.05	91.76
NOx	0.00	0.00	53.47	42.30	13.89	0.80	0.00	7.78	75.94
VOC	0.00	0.00	2.94	0.42	1.10	0.80	0.00	0.46	5.30
CO	0.00	0.00	44.92	10.58	2.99	2.70	0.00	6.53	57.14
total HAPs	0.00	0.00	1.01	0.01	0.02	9.13	0.02	0.15	10.33
worst case single HAP	0.00	0.00	(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.									

* 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: Mead Johnson & Company
Address City IN Zip: State Highway 62 East, Mt. Vernon, Indiana
CP: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousof / EVP
Date: 09/10/01

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

Unit ID	Type of Process	Max. Process Weight Rate lb/hr	Emission Factor lb PM / 2000 lb solids	Source of Emission Factor *	Control Efficiency (%)	Potential Uncontrolled PM Emissions lbs/hr	Potential Uncontrolled PM Emissions tons/yr	Potential Controlled PM Emissions tons/yr ***
Significant Emission Units								
S-9 (Pharmacy A)	Dry material mixing unit	693.00	7.20	Stack test **	99.00	2.49	10.93	0.11
S-10 (Pharmacy B)	Dry material mixing unit	926.00	7.20	Stack test **	99.00	3.33	14.60	0.15
S-13 (Press Room 1109)	Core pressing units	354.00	7.80	Stack test **	99.00	1.38	6.05	0.06
S-14 (Press Room 1111)	Core pressing units	354.00	7.80	Stack test **	99.00	1.38	6.05	0.06
S-15 (Press Room 1113)	Core pressing units	354.00	7.80	Stack test **	99.00	1.38	6.05	0.06
						Total Potential PM Emissions (tons/yr):	43.67	0.44
Insignificant Emission Units								
S-11 (Weigh room 1107)	Dry weighing unit	10.00	2.00	Engineering estimate	99.00	0.01	0.04	0.00
S-12 (Weigh room 1108)	Dry weighing unit	45.30	2.00	Engineering estimate	99.00	0.05	0.20	0.00
S-17 (Press room 1122)	Core pressing unit	261.00	7.80	Stack test **	99.00	1.02	4.46	0.04
S-18 (Press room 1121)	Core pressing unit	235.00	7.80	Stack test **	99.00	0.92	4.01	0.04
S-19 (Press room 1120)	Core pressing unit	179.00	7.80	Stack test **	99.00	0.70	3.06	0.03
S-16 (Press Room 1106)	Core pressing units	120.00	7.80	Stack test **	99.00	0.47	2.05	0.02
S-20 (Coating room 1112)	Coating unit	874.00	2.00	Stack test **	99.00	0.87	3.83	0.04
S-21 (Coating room 1125), S-22 (1124), S-23 (1117), S-25 (1123)	Coating units	654.00	2.00	Stack test **	99.00	0.65	2.86	0.03
Pharmaceutical packaging lines (Building 122)	Packaging lines 1, 2, 3, 5 and 6	442.00	0.02	Engineering estimate. The materials handled are coated solid tablets; dust generation is negligible.	99.00	0.004	0.02	0.0002
Pharmaceutical packaging lines (Building 124)	Packaging lines 7, 8, 9, 11, 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

Total Potential PM Emissions (tons/yr): 26.95 0.27

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.

Company Name:
Plant Location:
County:
Date:
Permit Reviewer:

Mead Johnson & Company
State Route 62 East, Mt. Vernon, IN 47620
Posey
05/26/06
Adeel Yousuf / EVP

Page 3 of 13 TSD App A

**** general facility information ****

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.

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

Total natural gas potential emissions

P M:	1.02
P M-10:	4.06
S O 2:	0.32
N O x:	53.47
V O C:	2.94
C O:	44.92

****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 @

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

Total No. 2 fuel oil potential emissions

P M:	7.64
P M-10:	7.64
S O 2:	162.70
N O x:	76.39
V O C:	0.76
C O:	19.10

Worst Case Potential Emissions

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

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

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:

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

Worst Case Emissions

			Worst Case Fuel
Criteria Pollutant:	P M:	4.23 ton/yr	No. 2 Residual Fuel Oil
	P M-10:	4.23 ton/yr	No. 2 Residual Fuel Oil
	S O 2:	90.10 ton/yr	No. 2 Residual Fuel Oil
	N O x:	53.47 ton/yr	Natural Gas
	V O C:	2.94 ton/yr	Natural Gas
	C O:	44.92 ton/yr	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
Arsenic:	4.00E-06 lb/MMBtu = 2.14E-03 ton/yr	1.18E-03 ton/yr
Beryllium:	3.00E-06 lb/MMBtu = 1.60E-03 ton/yr	8.88E-04 ton/yr
Cadmium:	3.00E-06 lb/MMBtu = 1.60E-03 ton/yr	8.88E-04 ton/yr
Chromium:	3.00E-06 lb/MMBtu = 1.60E-03 ton/yr	8.88E-04 ton/yr
Lead:	9.00E-06 lb/MMBtu = 4.81E-03 ton/yr	2.66E-03 ton/yr
Manganese:	6.00E-06 lb/MMBtu = 3.21E-03 ton/yr	1.78E-03 ton/yr
Mercury:	3.00E-06 lb/MMBtu = 1.60E-03 ton/yr	8.88E-04 ton/yr
Nickel:	3.00E-06 lb/MMBtu = 1.60E-03 ton/yr	8.88E-04 ton/yr
Selenium:	1.50E-05 lb/MMBtu = 8.02E-03 ton/yr	4.44E-03 ton/yr
Total HAPs =	2.62E-02 ton/yr	1.45E-02 ton/yr

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

**** 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
Total:	1.04E+00 ton/yr

**** 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
Total:	1.02E+00 ton/yr

**Appendix A: Emission Calculations
Tablet Coating**

Company Name: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06

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 (Manufacturer's guaranteed control efficiency is 99.97%)
Scrubber HCl Control Efficiency	97	%	Nominal equipment performance assumed (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
	10.12	ton/yr

Controlled particulate:

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

Controlled PM =	0.02	lb/hr
	0.55	lb/day
	0.10	ton/yr

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
	0.64	ton/yr

Controlled HCl:

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

Controlled HCl =	0.00	lb/hr
	0.11	lb/day
	0.02	ton/yr

**Appendix A: Emission Calculations
Incinerator**

Company Name: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06

	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: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06**

	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

Total HAPs	18.61407	9.13355
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Single Worst Case HAP (HCl)	18.34125	8.99968
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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: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06

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_{std} = Volumetric flow rate at Standard Temperature

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

C_s = 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 = $\frac{R \times T}{P \times M_w}$ 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

M_w = 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
Reciprocating Internal Combustion Engines (< 10 MMBtu/hr)**

**Company Name: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06**

Potential Emissions calculated based on 500 hours per year.

	Generator Capacity 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 emergency generator	5
One (1) emergency diesel generator, identified as E-1	2.5

12.60

Emission Factor in lb/MMBtu	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
	0.31	0.31	0.29	4.41	0.35	0.95
Potential Emission in tons/yr	0.98	0.98	0.91	13.89	1.10	2.99

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

Emission Factor in lb/MMBtu	Benzene	Acetaldehyde	Toluene	Propylene	Formaldehyde
		9.3E-04	7.7E-04	4.1E-04	2.6E-03
Potential Emission in tons/yr	0.0029	0.0024	0.0013	0.0081	0.0037

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.

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

**Company Name: Mead Johnson & Company
Address City IN Zip: State Highway 62 East, Mt. Vernon, Indiana
CP: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 09/10/01**

Insignificant Activity: Two (2) cold cleaners/degreaser

Potential Emissions:											
Material (as applied)	Process	Density (Lb/Gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat. lost (gal/day)*	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons 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
Total Potential Emissions:									0.01	0.19	0.034

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). 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: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06

Heat Input Capacity

	MMBtu/hr	Potential Throughput 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

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.15	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: Mead Johnson & Company
Address City IN Zip: State Route 62 East, Mt. Vernon, IN 47620
FESOP Renewal No.: 129-23109
Plt ID: 129-00021
Reviewer: Adeel Yousuf / EVP
Date: 05/25/06

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	1.633E-04	9.330E-05	5.832E-03	1.400E-01	2.644E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	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.