



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
Indianapolis, Indiana 46204  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

TO: Interested Parties / Applicant  
DATE: May 30, 2007  
RE: Westville Correctional Facility / 091-24264-00004  
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



Mitchell E. Daniels, Jr.  
Governor

Thomas W. Easterly  
Commissioner

100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
(317) 232-8603  
(800) 451-6027  
www.IN.gov/idem

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

**Westville Correctional Facility  
State Road 2 and 1100 West  
Westville, Indiana 46391**

(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.**

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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-8-11.1, applicable to those conditions

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.

Operation Permit No.: F091-24264-00004	
Issued by: Original signed by	Issuance Date: May 30, 2007
Nisha Sizemore, Chief Permits Branch Office of Air Quality	Expiration Date: May 30, 2012

## TABLE OF CONTENTS

<b>A. SOURCE SUMMARY .....</b>	<b>5</b>
A.1	General Information [326 IAC 2-8-3(b)]
A.2	Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]
A.3	Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]
A.4	Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(l)]
A.5	FESOP Applicability [326 IAC 2-8-2]
<b>B. GENERAL CONDITIONS .....</b>	<b>7</b>
B.1	Definitions [326 IAC 2-8-1]
B.2	Revocation of Permits (326 IAC 2-1.1-9(5))
B.3	Affidavit of Construction [326 IAC 2-5.1-3(h)][326 IAC 2-5.1-4] [326 IAC 2-8]
B.4	Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]
B.5	Term of Conditions [326 IAC 2-1.1-9.5]
B.6	Enforceability [326 IAC 2-8-6]
B.7	Severability [326 IAC 2-8-4(4)]
B.8	Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]
B.9	Duty to Provide Information [326 IAC 2-8-4(5)(E)]
B.10	Compliance Order Issuance [326 IAC 2-8-5(b)]
B.11	Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]
B.12	Annual Compliance Certification [326 IAC 2-8-5(a)(1)]
B.13	Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9) [326 IAC 2-8-5(a)(1)]
B.14	Emergency Provisions [326 IAC 2-8-12]
B.15	Prior Permits Superseded [326 IAC 2-1.1-9.5]
B.16	Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]
B.17	Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]
B.18	Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]
B.19	Permit Renewal [326 IAC 2-8-3(h)]
B.20	Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]
B.21	Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]
B.22	Source Modification Requirement [326 IAC 2-8-11.1]
B.23	Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2] [IC 13-30-3-1]
B.24	Transfer of Ownership or Operational Control [326 IAC 2-8-10]
B.25	Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16] [326 IAC 2-1.1-7]
B.26	Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]
B.27	Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]
<b>C. SOURCE OPERATION CONDITIONS.....</b>	<b>17</b>
<b>Emission Limitations and Standards [326 IAC 2-8-4(1)]</b>	
C.1	Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]
C.2	Overall Source Limit [326 IAC 2-8] [326 IAC 2-2] [326 IAC 2-3]
C.3	Opacity [326 IAC 5-1]
C.4	Open Burning [326 IAC 4-1] [IC 13-17-9]
C.5	Incineration [326 IAC 4-2] [326 IAC 9-1-2]
C.6	Fugitive Dust Emissions [326 IAC 6-4]
C.7	Stack Height [326 IAC 1-7]
C.8	Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

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

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

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

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

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

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

**Stratospheric Ozone Protection**

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

**D.1. EMISSIONS UNIT OPERATION CONDITIONS, BOILERS #1 THROUGH #4 ..... 24**

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

- D.1.1 Particulate Matter Limitation (PM) [326 IAC 6-2-3]
- D.1.2 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]
- D.1.3 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2]
- D.1.4 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2][326 IAC 2-4.1]
- D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

**Compliance Determination Requirements**

- D.1.6 Particulate Control
- D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [362 IAC 2-1.1-11]
- D.1.8 Sulfur Dioxide Emissions and Sulfur Content

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

- D.1.9 Parametric Monitoring
- D.1.10 Cyclone Failure Detection
- D.1.11 Visible Emissions Notations

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

- D.1.12 Record Keeping Requirements
- D.1.13 Reporting Requirements

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

- D.1.14 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]
- D.1.15 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]
- D.1.16 One Time Deadlines Relating to Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc]

**TABLE OF CONTENTS (Continued)**

D.1.17 State Only Emissions Standards of Performance for Small Industrial-Commercial-  
Institutional Steam Generating Units Requirements [326 IAC 12]

**D.2. EMISSIONS UNIT OPERATION CONDITIONS, CORN HANDLING AND STORAGE ..... 30**

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

D.2.1 Particulate [326 IAC 6-3-2]

<b>Certification Form .....</b>	<b>31</b>
<b>Emergency Occurrence Form.....</b>	<b>32-33</b>
<b>Natural Gas Fired Boiler Certification.....</b>	<b>34</b>
<b>FESOP Quarterly Report Form, Fuel Usage.....</b>	<b>35</b>
<b>FESOP Quarterly Report Form, Fuel Usage and Sulfur Content .....</b>	<b>36</b>
<b>Quarterly Deviation and Compliance Monitoring Report Form .....</b>	<b>37-38</b>
<b>Affidavit of Construction .....</b>	<b>39</b>

## 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, A.3 and A.4 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 correctional facility.

Source Address:	State Road 2 and 1100 West, Westville, Indiana 46391
Mailing Address:	State Road 2 and 1100 West, Westville, Indiana 46391
General Source Phone Number:	(219) 785-2511
SIC Code:	9223
County Location:	LaPorte
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

### A.2 Source Definition [326 IAC 2-8-1] [326 IAC 2-7-1(22)]

---

The Westville Correctional Facility (Source ID: 091-00004) and Pen Products (091-00109) are located in one complex of buildings. IDEM, OAQ examined whether these two plants should be considered one "major source" as defined at 326 IAC 2-7-1(22). IDEM, OAQ finds that the Westville Correctional Facility and PEN Products do not meet the criteria of 326 IAC 2-7-1 (22). They are not one source and will be permitted as separate sources.

### A.3 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) Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, referred to as Boiler #1, Boiler #2, and Boiler #3, each constructed in 1949 as coal-fired boilers and each converted to natural gas-fired boilers in 1997, each with a maximum heat input capacity of 50 million Btu per hour, and exhausting to one stack designated as stack #1.
- (b) One (1) corn-fired boiler system including one (1) untreated corn fired boiler identified as Boiler #4, with a maximum heat input capacity of 27.5 MMBtu/hr, and one (1) natural-gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts with emissions controlled by a cyclone, and exhausting to a stack. This facility is permitted to be constructed in 2007.
- (c) One (1) corn handling and storage operation, consisting of the following:
  - (1) One (1) truck unloading operation with a maximum throughput of 224,000 lbs of corn per hour. This facility is permitted to be constructed in 2007.
  - (2) One (1) corn storage silo, with a maximum storage capacity of 762,552 lbs of corn (volumetric capacity 15,987 cubic feet), with emissions controlled by a baghouse. This facility is permitted to be constructed in 2007.
  - (3) One (1) corn handling system with a maximum throughput of 252,000 lbs per

hour, with emissions controlled by a baghouse including: five (5) augers, one (1) conveyor, one (1) bucket elevator, one (1) pneumatic fuel transfer system, and one (1) metering bin. These facilities are permitted to be constructed in 2007.

- (d) One (1) ash disposal system, with a maximum throughput of 500 lbs of ash per hour, with emissions controlled by a cyclone including: three (3) augers. This facility is permitted to be constructed in 2007.

A.4 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

---

This stationary source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

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) for 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 the approval to construct 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, F091-24264-00004, 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, until the renewal permit has been issued or denied.

### **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. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent 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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the

shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (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 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 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.

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (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, and Northwest Regional Office 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  
Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267.

- (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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

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

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

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
  - (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
  - (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
  - (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
  - (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
  - (g) Operations may continue during an emergency only if the following conditions are met:
    - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
    - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
      - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
      - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

---

- (a) All terms and conditions of permits established prior to F091-24264-00004 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  
MC 61-53 IGCN 1003  
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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

---

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

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

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management  
Permits Branch, Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

and

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

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

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

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

- (b) **Emission Trades [326 IAC 2-8-15(c)]**  
The Permittee may trade emissions increases and decreases at 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 [326 IAC 2-8-15(d)]**  
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][IC 13-30-3-1]

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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

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

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) 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.3.
- (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] [326 IAC 2-2] [326 IAC 2-3]

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 make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) and 326 IAC 2-3 (Emission Offset) 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 that 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  
MC 61-52 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

### **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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

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

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

---

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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

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

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

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

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

---

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; and/or
  - (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 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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or

before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) Reporting periods are based on calendar years. Unless otherwise specified in this permit, for the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.

### **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) Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, referred to as Boiler #1, Boiler #2, and Boiler #3, each constructed in 1949 as coal-fired boilers and each converted to natural gas-fired boilers in 1997, each with a maximum heat input capacity of 50 million Btu per hour, and exhausting to one stack designated as stack #1
- (b) One (1) corn-fired boiler system including one (1) untreated corn fired boiler identified as Boiler #4, with a maximum heat input capacity of 27.5 MMBtu/hr, and one (1) natural-gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts with emissions controlled by a cyclone, and exhausting to a stack. This facility is permitted to be constructed in 2007.

(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 Matter Limitation (PM) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-4 (Particulate emission limitations for sources of indirect heating), particulate emissions from the Boilers #1, 2, and 3 shall in no case exceed 0.30 pound of particulate matter per million British thermal units heat input. This limitation is based on the following equation:

$$Pt = 1.09 / Q^{0.26}$$

where Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour of heat input. The maximum operating capacity rating is defined as the maximum capacity at which the facility is operated or the nameplate capacity, whichever is specified in the facility's operation permit application, except when some lower capacity is contained in the facility's operation permit; in which case, the capacity specified in the operation permit shall be used.

Pursuant to 326 IAC 6-2-4 particulate emissions from the corn fired boiler (Boiler #4) shall in no case exceed 0.28 lb/MMBtu. This limitation is based on the equation above.

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

Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) the SO<sub>2</sub> emissions from the Boilers #1, 2, and 3 shall not exceed five tenths (0.5) pounds per MMBtu heat input. In order to comply with this limit, the sulfur content of the No. 2 fuel oil shall not exceed 0.5 weight percent.

#### D.1.3 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the input of fuel oil to Boilers #1, 2, 3, and the corn-fired boiler ignition burner shall be limited to 500 kgallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit, one kgallon of fuel oil shall be considered equal to 118 million cubic feet of natural gas equivalents, based on SO<sub>2</sub> emissions.

This usage limit is required to limit the source-wide potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period. Boilers #1, 2, and 3 shall not burn untreated corn.

The above mentioned fuel oil or equivalent usage limit to Boilers #1, 2, 3, and the corn-fired boiler ignition burner will simultaneously limit the source-wide potential to emit of NO<sub>x</sub> to less than 100 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-7 (Title V), 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

The Permittee shall comply with the following limits for Boilers #1, 2, 3, and the corn-fired boiler ignition burner:

- (a) When burning No. 2 fuel oil SO<sub>2</sub> emissions shall not exceed 71.0 pounds per kgal.
- (b) When burning natural gas SO<sub>2</sub> emissions shall not exceed 0.60 pounds per MMCF.
- (c) When burning No. 2 fuel oil NO<sub>x</sub> emissions shall not exceed 20.0 pounds per kgal.
- (d) When burning natural gas NO<sub>x</sub> emissions shall not exceed 100 pounds per MMCF.
- (e) When burning No. 2 fuel oil PM<sub>10</sub> emissions shall not exceed 3.3 pounds per kgal.
- (f) When burning natural gas PM<sub>10</sub> emissions shall not exceed 7.60 pounds per MMCF.

**D.1.4 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2][326 IAC 2-4.1]**

---

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable, Boiler #4 shall be ignited using a natural-gas burner and otherwise burn only untreated corn. The Permittee shall comply with the following for Boiler #4:

- (a) The SO<sub>2</sub> emissions shall not exceed 0.45 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (b) The NO<sub>x</sub> emissions shall not exceed 0.75 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (c) The PM<sub>10</sub> emissions shall not exceed 0.38 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (d) The HCl emissions shall not exceed 2.28 pounds per hour.

**D.1.5 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 and the cyclone controlling emissions from Boiler #4.

**Compliance Determination Requirements**

**D.1.6 Particulate Control**

---

In order to comply with Condition D.1.1, the cyclone for particulate control shall be in operation and control emissions from the corn-fired boiler (Boiler #4) at all times that the corn-fired boiler is in operation.

**D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]**

---

Within one hundred and eighty (180) days after initial startup of the corn-fired boiler (Boiler #4), the Permittee also perform PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, VOC, and HCl testing for the corn-fired boiler utilizing methods as approved by the Commissioner. PM-10 includes filterable and

condensable PM-10. All tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

#### D.1.8 Sulfur Dioxide Emissions and Sulfur Content

---

Compliance with Conditions D.1.2 and D.1.3 shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification;
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the boilers, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) 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.1.9 Cyclone Failure Detection

---

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.

#### D.1.10 Visible Emissions Notations

---

- (a) When combusting fuel oil, daily visible emission notations of the Boilers #1, 2, and 3 stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) When combusting corn, daily visible emission notations of the Boiler #4 stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (c) 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.

- (d) 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.
- (e) 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.
- (f) 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)] [326 IAC 2-8-16]**

#### **D.1.11 Record Keeping Requirements**

---

- (a) To document compliance with Condition D.1.8, the Permittee shall maintain records in accordance with (1) through (6) below.
  - (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; 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.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and copies of all reports required by this permit.

- (b) To document compliance with Condition D.1.11, the Permittee shall maintain a daily record of visible emission notations for each of the Boilers #1, 2, 3, and 4 stack exhausts. The Permittee shall include in each daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).
- (c) To document compliance with Condition D.1.3, the Permittee shall maintain records of the No. 2 fuel oil or equivalent fuel usage and the weight percent sulfur content of the fuel oil.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.12 Reporting Requirements

---

A quarterly summary of the information to document compliance with Conditions D.1.2 and D.1.3 in any compliance period when No. 2 fuel oil was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, 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 an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

#### **New Source Performance Standards (NSPS) Requirements [326 IAC 2-8-4(1)]**

#### D.1.13 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

---

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the corn-fired boiler (Boiler #4) except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports to:

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

#### D.1.14 Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]

---

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12 for the corn-fired boiler (Boiler #4) as specified as follows.

#### **§ 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 allfuels fired and based on each individual fuel fired.

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

(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.

**D.1.15 One Time Deadlines Relating to Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc]**

---

The Permittee shall comply with the following requirements by the dates listed below:

- (a) Pursuant to 40 CFR 60.7(a)(1), submit notification of the date of construction of corn-fired boiler (Boiler #4), no later than 30 days after commencement of construction.
- (b) Pursuant to 40 CFR 60.7(a)(3), submit notification of the date of initial startup of corn-fired boiler (Boiler #4), within 15 days of startup. This notification shall include the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility, 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, and 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.

**D.1.16 State Only Emissions Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [326 IAC 12]**

---

Pursuant to 326 IAC 12 and until 326 IAC 1-1-3 is revised to include the most recent version of 40 CFR 60, Subpart Dc, the Permittee shall comply with the previous version of 40 CFR 60, Subpart Dc, published in 65 FR 61752, Oct. 17, 2000.

40 CFR 60, Subpart Dc has been most recently amended on February 27, 2006. Therefore, the February 27, 2006 amendments to the federal rule are not approved into the 326 IAC, and the corn-fired boiler (Boiler #4) at this source is subject to both versions of the rule. All of the requirements of the 326 IAC 12 rule that are applicable to this source are the same as the requirements listed under the Federal Rule Applicability Determination section except for the following:

- (1) 40 CFR 60.45c(a)
- (2) 40 CFR 60.48c(g)

The new version of 40 CFR 60.45c(a) allows for 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 0.54 lb/MMBtu or less, to be exempt from conducting emissions monitoring if fuel supplier certifications of the sulfur content are maintained. Additionally, pursuant to the 326 IAC version of 40 CFR 60.48c(g), the Permittee must keep daily records of the fuel burned in the boilers. The new version of 40 CFR 60.48c(g) allows for the Permittee to keep monthly records of the fuel burned in the boilers. Both versions will be included in the permit.

**SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS**

**Emissions Unit Description:**

(c) One (1) corn handling and storage operation, consisting of the following:

- (1) One (1) truck unloading operation with a maximum throughput of 224,000 lbs of corn per hour. This facility is permitted to be constructed in 2007.
- (2) One (1) corn storage silo, with a maximum storage capacity of 762,552 lbs of corn (volumetric capacity 15,987 cubic feet), with emissions controlled by a baghouse. This facility is permitted to be constructed in 2007.
- (3) One (1) corn handling system with a maximum throughput of 252,000 lbs per hour, with emissions controlled by a baghouse including: five (5) augers, one (1) conveyor, one (1) bucket elevator, one (1) pneumatic fuel transfer system, and one (1) metering bin. These facilities are permitted to be constructed in 2007.

(d) One (1) ash disposal system, with a maximum throughput of 500 lbs of ash per hour, with emissions controlled by a cyclone including: three (3) augers. This facility is permitted to be constructed in 2007.

(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 Particulate [326 IAC 6-3-2]**

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacture Processes), the allowable particulate emission rate from each process shall be limited by the following:

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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

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:

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The following table shows the maximum process weight rate and allowable particulate emission rate for each emission unit:

Emission Unit	Process Weight Throughput (tons/hr)	Particulate Emission Limit (lbs/hr)
Truck Unloading Operation	112	52.4
Corn Handling System	126	53.6
Ash Handling System	0.25	1.62

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

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

Source Name: Westville Correctional Facility  
Source Address: State Road 2 and 1100 West, Westville, Indiana 46391  
Mailing Address: State Road 2 and 1100 West, Westville, IN 46391  
FESOP Permit No.: F091-24264-00004

**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  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251  
Phone: 317-233-0178  
Fax: 317-233-6865**

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

Source Name: Westville Correctional Facility  
Source Address: State Road 2 and 1100 West, Westville, Indiana 46391  
Mailing Address: State Road 2 and 1100 West, Westville, IN 46391  
FESOP Permit No.: F091-24264-00004

**This form consists of 2 pages**

**Page 1 of 2**

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

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

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

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

**Page 2 of 2**

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

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 Quarterly Report

Source Name: Westville Correctional Facility  
Source Address: State Road 2 and 1100 West, Westville, Indiana 46391  
Mailing Address: State Road 2 and 1100 West, Westville, IN 46391  
FESOP Permit No.: F091-24264-00004  
Facility: Boilers #1, 2, and 3  
Parameter: No. 2 fuel oil or equivalent fuel usage  
Limit: 2,725 of No. 2 fuel oil or equivalent fuel 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: Westville Correctional Facility  
Source Address: State Road 2 and 1100 West, Westville, Indiana 46391  
Mailing Address: State Road 2 and 1100 West, Westville, IN 46391  
FESOP Permit No.: F091-24264-00004  
Facility: Boilers #1, 2, and 3  
Parameter: No. 2 fuel oil or equivalent fuel usage, sulfur content and heat content of fuel oil, and SO<sub>2</sub> emissions  
Limit: 0.5 weight percent sulfur content, and SO<sub>2</sub> emissions of 0.5 lb/MMBtu

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

Month	Sulfur Content (%)	Heat Content	Fuel usage (gal/month)	SO <sub>2</sub> Emissions (lb/MMBTU)

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

Source Name: Westville Correctional Facility  
Source Address: State Road 2 and 1100 West, Westville, Indiana 46391  
Mailing Address: State Road 2 and 1100 West, Westville, IN 46391  
FESOP Permit No.: F091-24264-00004

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

Page 1 of 2

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

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

Form Completed by: \_\_\_\_\_

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

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

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

Attach a signed certification to complete this report.

Mail to: Permit Administration & Development Section  
Office of Air Quality  
100 North Senate Avenue  
MC 61-53 IGCN 1003  
Indianapolis, Indiana 46204-2251

Westville Correctional Facility  
State Road 2 and 1100 West,  
Westville, IN 46391

Affidavit of Construction

I, \_\_\_\_\_, being duly sworn upon my oath, depose and say:  
(Name of the Authorized Representative)

1. I live in \_\_\_\_\_ County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.
2. I hold the position of \_\_\_\_\_ for \_\_\_\_\_.  
(Title) (Company Name)
3. By virtue of my position with \_\_\_\_\_, I have personal  
(Company Name)  
knowledge of the representations contained in this affidavit and am authorized to make  
these representations on behalf of \_\_\_\_\_.  
(Company Name)
4. I hereby certify that Westville Correctional Facility State Road 2 and 1100 West, Westville, IN 46391 completed construction of the corn-fired boiler and the associate corn and ash handling operations on \_\_\_\_\_ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality as permitted pursuant to New Source Review and Renewal of a FESOP Permit No. 091-24264-00004 Plant ID No. 091-00004 issued on \_\_\_\_\_.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature \_\_\_\_\_

Date \_\_\_\_\_

STATE OF INDIANA)  
)SS

COUNTY OF \_\_\_\_\_ )

Subscribed and sworn to me, a notary public in and for \_\_\_\_\_ County and State of  
Indiana on this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

My Commission expires: \_\_\_\_\_.

Signature \_\_\_\_\_

\_\_\_\_\_  
Name (typed or printed)

# Indiana Department of Environmental Management Office of Air Quality

## Addendum to the Technical Support Document For a New Construction and Federally Enforceable State Operating Permit (FESOP) Renewal

### Source Background and Description

Source Name:	Westville Correctional Facility
Source Location:	State Road 2 and 1100 West, Westville, IN 46391
County:	LaPorte
SIC Code:	9223
Operation Permit No.:	F091-24264-00004
Permit Reviewer:	ERG/BL

On March 25, 2007, the Office of Air Quality (OAQ) had a notice published in the News Dispatch, stating that Westville Correctional Facility had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to continue to operate a correctional facility, and to construct and operate a corn boiler. 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.

Comments on the draft permit were submitted by Johnson Controls (the contractor responsible for the corn boiler) and Westville Correctional Facility. Changes made as a result of these comments are shown throughout this addendum. New language is in **bold** while deleted language is in ~~strikeout~~. The Table of Contents has been updated as necessary.

### Johnson Controls Comments

On April 24, 2007, Johnson Controls submitted comments on the proposed FESOP. On May 2, 2007 Johnson Controls revised their original comment. The summary of the two (2) sets of comments are as follows:

#### **Comment 1:**

The description of the proposed construction was incorrect in three (3) places. The corn boiler will have an ignition burner for cold starts, the corn handling system will have a pneumatic fuel transfer system and a metering bin, and the ash disposal system will consist of three (3) augers. The design capacity of the corn storage silo, the corn handling, and ash disposal system are incorrect. Johnson Controls requests that these corrections be made.

#### **Response to Comment 1:**

The additional corn handling increased the sources potential to emit (PTE) PM10 in excess of one hundred (100) tons per year. Additional limits were necessary to limit the source-wide potential to emit PM10 such that the requirements of 326 IAC 2-7 (Part 70 Permit Program) remain not applicable. PM10 limits have been added for Boilers #1 through #4.

Although the unrestricted PTE of PM is less than two hundred fifty (250) tons per year, Condition C.2 is revised to clarify that the source-wide potential to emit PM shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period to make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), it was necessary to adjust the allowable PM rate from each process in the corn handling, corn storage, and ash handling operations since several maximum capacities increased. Fugitive particulate emissions from the paved roads are provided in to the emission calculations. These calculations are provided in Appendix A of this document.

The natural-gas ignition burner has been added to the fuel usage limit contained in Condition D.1.3. The additional natural gas combustion device increased the unrestricted potential to emit. Additional comments were provided by Westville Correctional Facility (Westville). The changes in fuel oil limit and a clarification in rule citation are shown below, but discussed elsewhere in this document. IDEM has revised the descriptive information as follows.

A.3 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) corn-fired boiler ~~system including one (1) using~~ untreated corn ~~fired boiler~~ identified as **Boiler #04**, with a maximum heat input capacity of 27.5 MMBtu/hr, **and one (1) natural-gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts** with emissions controlled by a cyclone, and exhausting to a stack. This facility is permitted to be constructed in 2007.
  - (c) One (1) corn handling and storage operation, consisting of the following:
    - (1) One (1) truck unloading operation with a maximum throughput of ~~2,685~~ **224,000** lbs of corn per hour. This facility is permitted to be constructed in 2007.
    - (2) One (1) corn storage silo, with a maximum storage capacity of ~~720,000~~ **762,552** lbs of corn (**volumetric capacity 15,987 cubic feet**), with emissions controlled by a baghouse. This facility is permitted to be constructed in 2007.
    - (3) One (1) corn handling system with a maximum throughput of ~~2,722~~ **252,000** lbs per hour, with emissions controlled by a baghouse including: five (5) augers, one (1) conveyor, ~~and one (1) bucket elevator,~~ **one (1) pneumatic fuel transfer system, and one (1) metering bin**. These facilities are permitted to be constructed in 2007.
  - (d) One (1) ~~enclosed auger for ash disposal~~ **system**, with a maximum throughput of ~~833~~ **500** lbs of ash per hour, with emissions controlled by a cyclone **including: three (3) augers**. This facility is permitted to be constructed in 2007.
- ...

C.2 Overall Source Limit [326 IAC 2-8] [326 IAC 2-2] [326 IAC 2-3]

- ...
- (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.**
  - (cb) 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 that the source's potential to emit does not exceed the above specified limits.
  - (de) Section D of this permit contains independently enforceable provisions to satisfy this requirement.
- ...

## SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (a) Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, referred to as boiler #1, boiler #2, and boiler #3, each constructed in 1949 as coal-fired boilers and each converted to natural gas-fired boilers in 1997, each with a maximum heat input capacity of 50 million Btu per hour, and exhausting to one stack designated as stack #1
- (b) One (1) corn-fired boiler **system including one (1) using untreated corn fired boiler** identified as **Boiler #04**, with a maximum heat input capacity of 27.5 MMBtu/hr, **and one (1) natural-gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts** with emissions controlled by a cyclone, and exhausting to a stack. This facility is permitted to be constructed in 2007.

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

#### D.1.3 FESOP [326 IAC 2-8][326 IAC 2-3 (Emission Offset)][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the input of fuel oil to ~~b~~Boilers #1, 2, and 3, **and the corn-fired boiler ignition burner** shall be limited to ~~2,725~~ **500** kgallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit, one kgallon of fuel oil shall be considered equal to 118 million cubic feet of natural gas equivalents, based on SO<sub>2</sub> emissions. This usage limit is required to limit the source-wide potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period. Boilers #1, 2, and 3 shall not burn untreated corn.

The above mentioned fuel oil or equivalent usage limit to ~~b~~Boilers #1, 2, and 3, **and the corn-fired boiler ignition burner** will simultaneously limit the source-wide potential to emit of NO<sub>x</sub> to less than 100 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-7 (Title V), 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

The **Permittee shall comply with the following limits for allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from** ~~b~~Boilers #1, 2, and 3, **and the corn-fired boiler ignition burner shall not exceed the following:**

- (a) When burning No. 2 fuel oil SO<sub>2</sub> emissions shall not exceed 71.0 pounds per kgal.
- (b) When burning natural gas SO<sub>2</sub> emissions shall not exceed 0.60 pounds per MMCF.
- (c) When burning No. 2 fuel oil NO<sub>x</sub> emissions shall not exceed 20.0 pounds per kgal.
- (d) When burning natural gas NO<sub>x</sub> emissions shall not exceed 100 pounds per MMCF.
- (e) **When burning No. 2 fuel oil PM10 emissions shall not exceed 3.3 pounds per kgal.**
- (f) **When burning natural gas PM10 emissions shall not exceed 7.60 pounds per MMCF.**

#### D.1.4 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2][326 IAC 2-4.1]

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD), ~~and~~ 326 IAC 2-3 (Emission Offset), **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)** not applicable, Boiler #4 shall be ignited using a natural-gas burner and otherwise

burn only untreated corn. The **Permittee shall comply with the following limits for allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from bBoiler #4 shall not exceed the following:**

- (a) The SO<sub>2</sub> emissions shall not exceed 0.45 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (b) The NO<sub>x</sub> emissions shall not exceed 0.75 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (c) **The PM<sub>10</sub> emissions shall not exceed 0.38 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).**

## SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

### Emissions Unit Description:

- (c) One (1) corn handling and storage operation, consisting of the following:
  - (1) One (1) truck unloading operation with a maximum throughput of ~~2,685~~ **224,000** lbs of corn per hour. This facility is permitted to be constructed in 2007.
  - (2) One (1) corn storage silo, with a maximum storage capacity of ~~720,000~~ **762,552** lbs of corn (**volumetric capacity 15,987 cubic feet**), with emissions controlled by a baghouse. This facility is permitted to be constructed in 2007.
  - (3) One (1) corn handling system with a maximum throughput of ~~2,722~~ **252,000** lbs per hour, with emissions controlled by a baghouse including: five (5) augers, one (1) conveyor, ~~and~~ one (1) bucket elevator, **one (1) pneumatic fuel transfer system, and one (1) metering bin**. These facilities are permitted to be constructed in 2007.
- (d) One (1) ~~enclosed auger for ash disposal~~ **system**, with a maximum throughput of ~~83.3~~ **500** lbs of ash per hour, with emissions controlled by a cyclone **including: three (3) augers**. This facility is permitted to be constructed in 2007.

(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 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacture Processes), the allowable particulate emission rate from each process shall be limited by the following:

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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

**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:**

$$E = 55.0 P^{0.11} - 40 \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The following table shows the maximum process weight rate and allowable particulate emission rate for each emission unit:

Emission Unit	Process Weight Throughput (tons/hr)	Particulate Emission Limit (lbs/hr)
Truck Unloading Operation	<del>4.34</del> <b>112</b>	<del>4.99</del> <b>52.4</b>
Corn Handling System	<del>4.36</del> <b>126</b>	<del>5.04</del> <b>53.6</b>
Ash Handling System	<del>0.04</del> <b>0.25</b>	<del>0.49</del> <b>1.62</b>

**Westville Correctional Facility Comments**

On April 24, 2007, Westville Correctional Facility (Westville) submitted comments on the proposed FESOP. On May 11, 2007 Westville revised their original comments. The summary of the two (2) sets of comments are as follows:

**Comment 1:**

There are currently no EPA approved Emission Factors for corn fired boilers. The permit includes an allowable SO<sub>2</sub> and NO<sub>x</sub> emission rate for untreated corn of 0.03 lb/MMBtu and 0.49 lb/MMBtu based on factors included in AP-42 Chapter 1.6 - Wood Residue Combustion in Boilers (September 2003 edition). Westville requests that the allowable SO<sub>2</sub> emission rates be increased to 0.45 lb/MMBtu and 0.75 lb/MMBtu, respectively. The revised rate provides a more conservative estimate of SO<sub>2</sub> and NO<sub>x</sub> emissions from the combustion of untreated corn. The permit requires that the source conduct testing to demonstrate compliance with these emission rates. If testing shows these emissions are greater than the permitted limit a FESOP Minor Permit Revision would be required to adjust these emission rates. These increased emission rate decreases the likelihood of a permit revision.

Westville has requested a change in fuel oil limit for the three (3) natural gas-fired boilers (using No. 2 fuel oil as backup), to compensate for the more conservative SO<sub>2</sub> and NO<sub>x</sub> emission rates for untreated corn combustion. Westville requests that the allowable fuel oil usage be reduced from 2,725 kgallons per year to 500 kgallons per year.

**Response to Comment 1:**

IDEM has revised the SO<sub>2</sub> emission rate limit and the NO<sub>x</sub> emission rate limit for the combustion of untreated corn, and the fuel oil limit for the three (3) natural gas-fired boilers and the corn boiler ignition burner. Compliance with these revised limits makes 326 IAC 2-7 (Part 70 Permit Program), 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable. The following changes have been made to the permit as a result of this comment:

**D.1.3 FESOP [326 IAC 2-8][~~326 IAC 2-3 (Emission Offset)~~][326 IAC 2-2]**

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable, the input of fuel oil to ~~b~~**Boilers #1, 2, and 3, and the corn-fired boiler ignition burner** shall be limited to ~~2,725~~ **500** kgallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

For the purpose of determining compliance with this limit, one kgallon of fuel oil shall be considered equal to 118 million cubic feet of natural gas equivalents, based on SO<sub>2</sub> emissions. This usage limit is required to limit the source-wide potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period. Boilers #1, 2, and 3 shall not burn untreated corn.

The above mentioned fuel oil or equivalent usage limit to ~~b~~**Boilers #1, 2, and 3, and the corn-fired boiler ignition burner** will simultaneously limit the source-wide potential to emit of NO<sub>x</sub> to less than 100 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-7 (Title V), 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

The **Permittee shall comply with the following limits for allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from bBoilers #1, 2, and 3, and the corn-fired boiler ignition burner shall not exceed the following:**

...

D.1.4 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2]

---

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) **not applicable**, Boiler #4 shall **be ignited using a natural-gas burner and otherwise** burn only untreated corn. The **Permittee shall comply with the following limits for allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from bBoiler #4 shall not exceed the following:**

- (a) The SO<sub>2</sub> emissions shall not exceed ~~0.03~~ **0.45** pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (b) The NO<sub>x</sub> emissions shall not exceed ~~0.49~~ **0.75** pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).

...

Upon Further review, IDEM, OAQ has made the following minor revisions to the permit:

1. There are currently no EPA approved Emission Factors for corn fired boilers. Factors from AP-42 Chapter 1.6 - Wood Residue Combustion in Boilers (September 2003 edition) show that emissions can contain hydrogen chloride (HCl). Therefore IDEM has inserted an HCl limit to render the requirements 326 IAC 2-4.1 not applicable.

D.1.4 FESOP [326 IAC 2-8][326 IAC 2-3][326 IAC 2-2][**326 IAC 2-4.1**]

---

Pursuant to 326 IAC 2-8-4 (FESOP) and in order to render the requirements of 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset), **and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants)** not applicable, Boiler #4 shall be ignited using a natural-gas burner and otherwise burn only untreated corn. The **Permittee shall comply with the following limits for allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from bBoiler #4 shall not exceed the following:**

- (a) The SO<sub>2</sub> emissions shall not exceed 0.45 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (b) The NO<sub>x</sub> emissions shall not exceed 0.75 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
- (c) **The PM<sub>10</sub> emissions shall not exceed 0.38 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).**
- (d) **The HCl emissions shall not exceed 2.28 pounds per hour.**

...

D.1.6 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

---

Within one hundred and eighty (180) days after initial startup of the corn-fired boiler (**Boiler #4**), the Permittee also perform PM, PM<sub>10</sub>, SO<sub>2</sub>, NO<sub>x</sub>, CO, and VOC, **and HCl** testing for the corn-fired boiler utilizing methods as approved by the Commissioner. PM-10 includes filterable and condensable PM-10. All tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

2. Pursuant to 326 IAC 6-2-4 the total particulate emissions from the corn-fired boiler (Boiler #4) shall in no case exceed 0.28 lb/MMBtu. In order to comply with 326 IAC 6-2-4 the cyclone for particulate control shall be in operation and control emissions from the corn-fired boiler at all times that the corn-fired boiler is in operation. Certain compliance determination and monitoring requirements are mandatory for operations with a cyclone.

Also included below are clarifications to the record keeping requirements. The intent of record keeping requirements was that the Permittee make a record of some sort every day. If no record was taken the Permittee shall write down why no record was taken.

#### **D.1.6 Particulate Control**

---

**In order to comply with Condition D.1.1, the cyclone for particulate control shall be in operation and control emissions from the corn-fired boiler (Boiler #4) at all times that the corn-fired boiler is in operation.**

#### ~~D.1.6~~**D.1.7** Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

---

...

#### ~~D.1.7~~**D.1.8** Sulfur Dioxide Emissions and Sulfur Content

---

...

#### **D.1.9 Cyclone Failure Detection**

---

**In the event that cyclone failure has been observed:**

**Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances, shall be considered a deviation from this permit.**

...

#### ~~D.1.8~~**D.1.10** Visible Emissions Notations

---

...

#### ~~D.1.9~~**D.1.11** Record Keeping Requirements

---

- (a) To document compliance with Condition ~~D.1.7~~**D.1.8**, the Permittee shall maintain records in accordance with (1) through (6) below.

- (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; 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.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and copies of all reports required by this permit.

- (b) To document compliance with Condition ~~D.1.8~~**D.1.11**, the Permittee shall maintain a daily record of visible emission notations for each of the ~~b~~**Boilers #1, 2, 3, and 4** stack exhausts ~~or maintain a record of the reason why the visible emissions notations were not taken.~~ **The Permittee shall include in each daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g., the process did not operate that day).**

...

~~D.1.10~~**D.1.12** Reporting Requirements

---

...

~~D.1.11~~**D.1.13** General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

---

- (a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the corn-fired boiler (**Boiler #4**) except as otherwise specified in 40 CFR Part 60, Subpart Dc.

...

~~D.1.12~~**D.1.14** Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [40 CFR Part 60, Subpart Dc] [326 IAC 12]

---

Pursuant to 40 CFR Part 60, Subpart Dc, the Permittee shall comply with the provisions of Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, which are incorporated by reference as 326 IAC 12 for the corn-fired boiler (**Boiler #4**) as specified as follows.

...

~~D.1.13~~**D.1.15** One Time Deadlines Relating to Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc]

---

- (b) Pursuant to 40 CFR 60.7(a)(3), submit notification of the date of initial startup of corn-fired boiler (**Boiler #4**), within 15 days of startup. This notification shall include the design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility, 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, and 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.

...

~~D.1.14~~**D.1.16** State Only Emissions Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units Requirements [326 IAC 12]

---

...

40 CFR 60, Subpart Dc has been most recently amended on February 27, 2006. Therefore, the February 27, 2006 amendments to the federal rule are not approved into the 326 IAC, and the corn-fired boiler (**Boiler #4**) at this source is subject to both versions of the rule. All of the requirements of the 326 IAC 12 rule that are applicable to this source are the same as the

requirements listed under the Federal Rule Applicability Determination section except for the following:

...

3. Specific mail codes (MC) for each of the IDEM branches have been added to IDEM's address so as to improve mail delivery, as follows:

Permits Branch: **MC 61-53 IGCN 1003**  
Compliance Branch: **MC 61-53 IGCN 1003**  
Asbestos Section: **MC 61-52 IGCN 1003**  
Technical Support and Modeling: **MC 61-50 IGCN 1003**

4. In order to clarify rule citations the following revisions were made to the permit.

C.2 Overall Source Limit [326 IAC 2-8] **[326 IAC 2-2] [326 IAC 2-3]**

---

...

D.1.3 FESOP [326 IAC 2-8][~~326 IAC 2-3 (Emission Offset)~~][326 IAC 2-2]

---

...

5. The following minor typographical error was corrected by IDEM, OAQ.

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

---

- ...
- (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~~ **one hundred** twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.

**Appendix A: Emission Calculations  
Potential to Emit Summary**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** May 14, 2007

Process/Emission Unit	Potential To Emit (tons/yr)							
	PM	PM10	SO <sub>2</sub>	VOC	CO	NOx	HCl	HAPs
Boilers #1 through #4, Worst Case Fuel	9.45	15.6	336	3.57	54.5	94.5	-	1.22
Boiler #4, Corn	48.2	45.4	54.2	2.05	72.3	90.3	2.29	4.23
Corn and Ash Handling	166	60.6	-	-	-	-	-	-
Paved Roads *	28.4	5.54	-	-	-	-	-	-
<b>TOTAL =</b>	<b>224</b>	<b>122</b>	<b>390</b>	<b>5.62</b>	<b>127</b>	<b>185</b>	<b>2.29</b>	<b>5.45</b>

Process/Emission Unit	Potential to Emit After Issuance (tons/yr)							
	PM	PM10	SO <sub>2</sub>	VOC	CO	NOx	HCl	HAPs
Boilers #1 through #4, Fuel Oil **	0.50	0.83	17.8	0.09	1.25	5.0	-	2.78E-05
Boiler #4, Corn ***	33.7	29.5	54.2	2.05	72.3	90.3	9.99	4.23
Corn and Ash Handling	166	60.6	-	-	-	-	-	-
Paved Roads *	28.4	5.54	-	-	-	-	-	-
<b>TOTAL =</b>	<b>200</b>	<b>91.0</b>	<b>72.0</b>	<b>2.13</b>	<b>73.5</b>	<b>95.3</b>	<b>9.99</b>	<b>4.23</b>

\* Since correctional facilities are not one of the 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) emissions are not counted toward determination of PSD applicability.

\*\* Pursuant to 326 IAC 2-8-4, the input of fuel oil to Boilers #1 through #4 shall be limited to 500 kgals per twelve (12) consecutive month period. For the purpose of determining compliance with this limit, one (1) kgal of fuel oil shall be considered equal to one hundred eighteen (118) million cubic feet of natural gas equivalents, based on sulfur dioxide (SO<sub>2</sub>) emissions. This usage limit is required to limit the source-wide potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period.

\*\*\* Pursuant to 326 IAC 6-2-4 the total particulate emissions from the Boilers #1, #2, and #3 shall in no case exceed 0.30 lb/MMBtu. Pursuant to 326 IAC 6-2-4 the total particulate emissions from the corn-fired boiler (Boiler #4) shall in no case exceed 0.28 lb/MMBtu. The corn-fired boiler (Boiler #4) is controlled by a cyclone.

**Appendix A: Emission Calculations**  
**Criteria Emissions From Boilers #1 through #4, Natural Gas Combustion**  
**Small Industrial Boiler, MM BTU/HR <100**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** May 14, 2007

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMSCF/yr)
151	1,297

	Pollutant					
Emission Factor (lb/MMSCF)	PM*	PM10*	SO2	NOx**	VOC	CO
Potential to Emit (tons/yr)	1.23	4.93	0.39	64.9	3.57	54.5

Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, each with a maximum heat input capacity of 50 MMBtu/hr and one (1) natural-gas ignition burner with a maximum heat input capacity of 1.075 MMBtu/hr for cold boiler starts.

Pursuant to 326 IAC 6-2-4 the total particulate emissions from the Boilers #1, #2, and #3 shall in no case exceed 0.30 lb/MMBtu.

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

\*\*Emission factor for NOx (Uncontrolled) = 100 lb/MMSCF

Emission factors are from AP-42, Chapter 1.4 - External Combustion Sources-Natural Gas Combustion, 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 [7/98].

All emission factors are based on normal firing.

**Methodology**

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lb/MMSCF) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations**  
**HAPs Emissions from From Boilers #1 through #4, Natural Gas Combustion**  
**Small Industrial Boiler, MM BTU/HR <100**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

HAPs - Organics

Emission Factor (lb/MMSCF)	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03
Potential to Emit (tons/yr)	1.36E-03	7.78E-04	4.87E-02	1.17E+00	2.21E-03

HAPs - Metals

Emission Factor (lb/MMSCF)	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03
Potential to Emit (tons/yr)	3.24E-04	7.14E-04	9.08E-04	2.47E-04	1.36E-03

Note: The five highest organic and metal HAPs emission factors provided above are from AP-42, Chapter 1.4, Table 1.4-2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu  
 Potential to Emit (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lb/MMSCF) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations**  
**Criteria Emissions From Boilers #1 through #4, using No. 2 Fuel Oil Combustion**  
**Distillate Oil, MM BTU/HR <100**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** May 14, 2007

Heat Input Capacity  
(MMBtu/hr)  
**151**

Potential Throughput  
(kgals/yr)  
**9,453**

Limited Throughput  
(kgals/yr)  
**500**

S = Weight % Sulfur  
**0.5**

	Pollutant						
	PM*	PM10*	SO <sub>2</sub>	NOx	VOC	CO	HAPs
Emission Factor (lb/kgal)	2.0	3.3	71 (142.0 S)	20.0	0.34	5.0	1.11E-04
Potential to Emit (tons/yr)	9.45	15.6	336	94.5	1.61	23.6	5.25E-04
Limited Potential to Emit (tons/yr)	0.50	0.83	17.8	5.00	0.09	1.25	2.78E-05

Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, each with a maximum heat input capacity of 50 MMBtu/hr

No. 2 Fuel Oil has an average heating value of 140,000 Btu/gal

Emission factors are from AP-42, Chapter 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, 1.3-3, and 1.3-9 (SCC 1-03-005-02/03) [9/98

Pursuant to 326 IAC 6-2-4 the total particulate emissions from the Boilers #1, #2, and #3 shall in no case exceed 0.30 lb/MMBtu.

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

**Methodology**

Potential Throughput (kgals/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.14 MMBtu

Potential to Emit (tons/yr) = Potential Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/tor

Limited Potential to Emit (tons/yr) = Limited Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/tor

326 IAC 6-2-4, Particulate Emission Limitations (lb/MMBtu) = 1.09 / Source Operating Capacity (MMBtu/hr)<sup>0.26</sup>

**Appendix A: Emissions Calculations**  
**Criteria Emission From Boiler #4 - Combusting Untreated Corn**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** May 14, 2007

Heat Input Capacity  
(MMBtu/hr)  
27.5

Throughput of untreated corn \*  
(lb/hr)  
4,044

Cyclone Control Efficiency  
75% PM  
35% PM10

Emission Factor (lb/MMBtu)	Pollutant					
	PM**	PM10**	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
Potential to Emit (tons/yr)	48.2	45.4	54.2	90.3	2.05	72.3
Controlled Potential to Emit (tons/yr)	33.7 ***	29.5	54.2	90.3	2.05	72.3

\* Heat value of shelled untreated corn = 6800 Btu/lb

One bushel of corn at 15.5% moisture = 56 pounds

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

\*\*\* Pursuant to 326 IAC 6-2-4 the total particulate emissions from the corn-fired boiler (Boiler #4) shall in no case exceed 0.28 lb/MMBtu.

All emission factors are based on normal firing.

PM, PM10, VOC, and CO emission factors are from AP-42 Chapters 1.6 - Wood Residue Combustion In Boilers. Tables 1.6-1, 1.6-2, 1.6-3. SO<sub>2</sub> and NO<sub>x</sub> (September 2003) emission factors are voluntary limits which are greater than the AP-42 factors of 0.025 and 0.49 lb/MMBtu, respectively.

**Methodology**

Potential to Emit (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

Controlled Potential to Emit (tons/yr) = Potential to Emit (tons/yr) x (1 - % Control Efficiency)

See page 6 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**HAP Emissions From Boiler #4 - Combusting Shelled Corn**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

	HAPs					
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride *	Styrene	Manganese
Emission Factor (lb/MMBtu)	4.0E-03	4.2E-03	4.4E-03	1.90E-02	1.9E-03	1.6E-03
Emission Limit (lb/hr)	-	-	-	2.28	-	-
Potential to Emit (tons/yr)	0.48	0.51	0.53	2.29	0.23	0.19
Controlled Potential to Emit (tons/yr)	-	-	-	9.99	-	-

HAPs emission factors are from AP-42, Chapter 1.6 Wood Residue Combustion In Boilers, Tables 1.6-3 and 1.6-4. Only the highest six emission factors are shown.

\* The source has accepted voluntary limits for hydrogen chloride (2.28 lb/hr) which are greater than the AP-42 factors of 0.019 lb/MMBtu.

**Methodology**

Potential to Emit (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

**Appendix A: Emissions Calculations**  
**Particulate Emissions from Corn and Ash Handling Operations**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** May 14, 2007

	CORN UNLOADING/ RECEIVING	CORN HEADHOUSE AND INTERNAL HANDLING (legs, belts, distributor, etc.)	ASH INTERNAL HANDLING (auger, container)	CORN STORAGE BIN (vent)
Throughput (tons/hr)	112	126	0.25	381

\* Maximum silo storage capacity 381 tons

	CORN UNLOADING/ RECEIVING		CORN HEADHOUSE AND INTERNAL HANDLING (legs, belts, distributor, etc.)		ASH INTERNAL HANDLING (auger, container)		CORN STORAGE BIN (vent)	
	PM	PM10	PM	PM10	PM	PM10	PM	PM10
Emission Factor (lb/ton)	0.18	0.059	0.061	0.034	2.2	2.2	0.025	0.0063
Potential to Emit (tons/yr)	88.3	28.9	33.7	18.8	2.41	2.41	41.7	10.5
Control Efficiency	0%	0%	90%	90%	75%	35%	90%	90%
Controlled Potential to Emit (tons/yr)	88.3	28.9	3.37	1.88	0.60	1.57	4.17	1.05

Emission factors are from AP-42 Chapter 9.9.1 - Grain Elevators & Processes, Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (Receiving: SCC 3-02-005-51, Handling: SCC 3-02-005-30, Storage: SCC 3-02-005-40) [4/03]  
 Emission factors for ash handling are from AP-42, Chapter 11.17 Lime Manufacture, Table 11.17-4 (Product Transfer: SCC 3-05-016-15) [2/98]

**Methodology**

Potential to Emit (tons/yr) = Throughput (tons/hr) \* Emission factor (lb/ton) \* 8,760 (hrs/yr) / 2000 (lbs/ton)

Controlled Potential to Emit (tons/yr) = Throughput (tons/hr) \* Emission factor (lb/ton) \* 8,760 (hrs/yr) / 2,000 (lbs/ton) \* (1-Control Efficiency %)

	PM	PM-10
<b>Total Uncontrolled Emissions (tons/yr)</b>	<b>166</b>	<b>60.6</b>
<b>Total Controlled Emissions (tons/yr)</b>	<b>96.4</b>	<b>33.4</b>

**Appendix A: Emission Calculations  
PM Emissions From the Corn and Ash Handling  
Demonstration of Compliance with 326 IAC 6-3-2**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** May 14, 2007

**Allowable Emissions Under 326 IAC 6-3-2**

Emissions Unit Description	Maximum (lbs/hr)	Maximum Process Weight (tons/hr)	PM Emission Factor (lbs/ton)	Control Device(s)	Collection and Control Efficiency (%)	PM Emissions Before Control (lbs/hr)	326 IAC 6-3-2 Allowable PM Emissions (lbs/hr)	PM Emissions After Control (lbs/hr)
Truck Unloading Operation	224,000	112	0.18	NA	0%	20.2	52.4	20.2
Corn Handling System	252,000	126	0.061	Baghouse	90%	7.69	53.6	0.77
Ash Handling System	500	0.25	2.20	Cyclone	75%	0.55	1.62	0.14

Allowable emissions under 326 IAC 6-3-2 are calculated using the equation where the process weight rate up to sixty thousand (60,000) pounds per hour:

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

where,

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

For the process weight rate in excess of sixty thousand (60,000) pounds per hour shall be accomplished by use of the equation

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

Corn handling emission factors are from AP-42, Chapter 9.9.1 - Grain Elevators & Processes, Table 9.9.1-1 Particulate Emission Factors for Grain Elevators [4/03]

Ash handling emission factors are from AP-42, Chapter 11.17 Lime Manufacture, Table 11.17-4 Product Transfer: SCC 3-05-016-15 [2/98]

**Methodology**

Maximum Grain Throughput (tons/hr) = Maximum Grain Throughput (bushels/hr) x 56 (lbs/bushel) x 1 ton/2000 lbs

PTE of PM/PM10 Before Control (lbs/hr) = Maximum Throughput (tons/hr) x Emission factor (lbs/ton)

PTE of PM/PM10 After Control (tons/yr) = Maximum Throughput (tons/hr) x Emission factor (lbs/ton) x (1- Control Efficiency (%))

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

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit  
(FESOP) Renewal

**Source Background and Description**

Source Name:	Westville Correctional Facility
Source Location:	State Road 2 and 1100 West, Westville, IN 46391
County:	LaPorte
SIC Code:	9223
Operation Permit No.:	091-7589-00004
Operation Permit Issuance Date:	August 9, 1999
Permit Renewal No.:	091-24264-00004
Permit Reviewer:	ERG/BL

The Office of Air Quality (OAQ) has reviewed a FESOP renewal application from Westville Correctional Facility relating to the operation of a correctional facility.

**Source Definition**

The Westville Correctional Facility (Source ID: 091-00004) and Pen Products (091-00109) are located in one complex of buildings. IDEM, OAQ examined whether these two plants should be considered one "major source" as defined at 326 IAC 2-7-1(22). In order for these two plants to be considered one major source, they must meet all three of the following criteria:

- (1) The plants must be under common ownership or common control;
- (2) The plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
- (3) The plants must be located on contiguous or adjacent properties.

The two plants are both owned and operated by the State of Indiana, therefore common ownership and control exists. The plants are located on the same property, therefore they are contiguous.

The plants do not have the same two-digit Standard Industrial Classification (SIC) Code. The Westville Correctional Facility (Westville) is primarily engaged in the confinement and correction of offenders sentenced by a court. It has the two-digit SIC Code of 92 for Justice, Public Order, and Safety. PEN Products (PEN) is primarily engaged in the production of picnic tables and hickory furniture. It also produces highway road signs and kits for wooden sheltered houses. It has the two-digit SIC Code of 25 for Furniture and Fixtures.

Neither plant serves as a support facility for the other. A support facility is a plant that dedicates at least 50% of its output to another plant. Though PEN employs some of the offenders who are housed at Westville, these workers are not a product or output of PEN. Westville provides PEN with heating, but it is less than 50% of Westville's total heating output. None of the products produced by PEN are sent to Westville.

IDEM, OAQ finds that the Westville Correctional Facility and PEN Products do not meet the criteria of 326 IAC 2-7-1 (22). They are not one major source and will be permitted as separate sources.

**Permitted Emission Units and Pollution Control Equipment**

The source consists of the following permitted emission units and pollution control devices:

- (a) Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, referred to as boiler #1, 2, and 3, each constructed in 1949 as coal-fired boilers and each converted to natural gas-fired boilers in 1997, each with a maximum heat input capacity of 50 million Btu per hour (MMBtu/hr), and exhausting to one stack designated as stack #1.

### **Unpermitted Emission Units and Pollution Control Equipment**

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

### **New Emission Units Receiving Advanced Source Modification Approval**

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

- (b) One (1) corn-fired boiler using untreated corn identified as 04, with a maximum heat input capacity of 27.5 MMBtu/hr, with emissions controlled by a cyclone, and exhausting to a stack. This facility is permitted to be constructed in 2007.
- (c) One (1) corn handling and storage operation, consisting of the following:
  - (1) One (1) truck unloading operation with a maximum throughput of 2,685 lbs of corn per hour. This facility is permitted to be constructed in 2007.
  - (2) One (1) corn storage silo, with a maximum storage capacity of 720,000 lbs of corn, with emissions controlled by a baghouse. This facility is permitted to be constructed in 2007.
  - (3) One (1) corn handling system with a maximum throughput of 2,722 lbs per hour, with emissions controlled by a baghouse including: five (5) augers, one (1) conveyor, and one (1) bucket elevator. These facilities are permitted to be constructed in 2007.
- (d) One (1) enclosed auger for ash disposal, with a maximum throughput of 83.3 lbs of ash per hour, with emissions controlled by a cyclone. This facility is permitted to be constructed in 2007.

### **Insignificant Activities**

This source does not currently have any insignificant activities, as defined in 326 IAC 2-7-1(21).

### **Existing Approvals**

The source was issued FESOP No. 091-7589-00004 on August 9, 1999. The source has since received the following approvals:

- (a) First Administrative Amendment No.: 091-12460-00004, issued on August 2, 2000;
- (b) Reopening No. 091-13075-00004, issued December 10, 2001; and
- (c) Second Administrative Amendment No.: 091-24013-00004, issued on January 10, 2007.

### **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 Significant Permit Revision application for the purposes of this review was received on February 1, 2007. Since the FESOP renewal has not yet been issued the Significant Permit Revision application was combined with the renewal application. The FESOP renewal application was received on March 21, 2003.

## Emission Calculations

See Appendix A of this document for detailed emissions calculations, pages 1 through 8.

## 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	60.8
PM-10	64.7
SO <sub>2</sub>	337
VOC	7.19
CO	150
NO <sub>x</sub>	217

HAPs	Unrestricted Potential Emissions (tons/yr)
Hydrogen Chloride	2.29
Total Combined HAP	5.45

## 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.

Process/emission unit	Potential To Emit (tons/year)						
	PM	PM-10	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>	HAPs
Fuel Oil Combustion Boilers #1, 2, 3 *	2.73	4.50	96.7	0.46	6.81	27.3	0.06
Corn-Fired Combustion – Boiler**	33.7	28.2	3.01	2.05	72.3	59.2	4.04
Corn and Ash Handling	1.17	0.63	-	-	-	-	-
<b>Total Emissions</b>	<b>37.6</b>	<b>33.3</b>	<b>99.7</b>	<b>2.51</b>	<b>79.1</b>	<b>86.3</b>	<b>4.10</b>

\* Pursuant to 326 IAC 2-8-4, the input of fuel oil to boilers #1, 2, and 3 shall be limited to 2,725 kgals per twelve (12) consecutive month period.

\*\* Pursuant to 326 IAC 6-2-4 the total particulate emissions from the corn fired boiler shall not exceed 0.28 lb/MMBtu. This unit is controlled with a cyclone.

After construction and operation of the proposed corn-fired boiler and the associated corn and ash handling equipment, the potential to emit of the criteria pollutants from the entire source is greater than the Title V major source thresholds. However, the source has accepted limits on the SO<sub>2</sub>, CO and NO<sub>x</sub> emissions. Therefore, the requirements of 326 IAC 2-7 are not applicable to this source.

### County Attainment Status

The source is located in LaPorte County.

Pollutant	Status
PM-10	Attainment
PM2.5	Attainment
SO <sub>2</sub>	Maintenance
NO <sub>2</sub>	Attainment
8-hour Ozone	Moderate nonattainment
CO	Attainment
Lead	Attainment

Note: On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.

- (a) LaPorte County has been classified as unclassifiable or 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. See the State Rule Applicability - Entire Source section.
- (b) Volatile organic compounds (VOC) and Nitrogen Oxides (NO<sub>x</sub>) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO<sub>x</sub> emissions are considered when evaluating the rule applicability relating to the ozone standards. LaPorte County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NO<sub>x</sub> emissions were reviewed pursuant to the requirements for nonattainment new source review.
- (c) LaPorte County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability - Entire Source section.
- (d) Fugitive Emissions  
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2 or 2-3 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD and Emission Offset applicability.

### Source Status

Existing Source PSD, Part 70, or FESOP Definition (emissions after controls, based on 8760 hours of operation per year at rated capacity and/or as otherwise limited):

Pollutant	Emissions (tons/yr)
PM	37.6
PM-10	33.3
SO <sub>2</sub>	99.7
VOC	2.51
CO	79.1

Pollutant	Emissions (tons/yr)
NO <sub>x</sub>	86.3
Combination HAPs	4.10

- (a) This existing source is not a major stationary source under PSD 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.
- (b) This existing sources is not a major stationary source under Emission Offset because no nonattainment pollutant is emitted at a rate of 100 tons per year or greater.

### Federal Rule Applicability

- (a) The requirements of the New Source Performance Standard, 40 CFR 60.300, Subpart DD (326 IAC 12) are not included in this permit because the source has a permanent storage capacity less than 2.5 million U.S. bushels. The maximum storage capacity of the source is 0.013 million U.S. bushels.
- (b) The requirements of the New Source Performance Standard, 40 CFR 60, Subpart Dc (326 IAC 12) are included for the corn-fired boiler, because the operation commenced after June 9, 1989 and the maximum design heat input capacity is greater than ten (10) MMBtu/hr but less than one hundred (100) MMBtu/hr.

The corn-fired boiler is subject to the following portions of 40 CFR 60, Subpart Dc. Non-applicable portions of the NSPS are not included in the permit:

- (1) 40 CFR 60.48c(a)
- (2) 40 CFR 60.48c(g)

The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated as 326 IAC 12-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Dc.

The natural gas-fired boilers, referred to as boiler #1, 2, and 3, are not subject to the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc), because they were constructed prior to June 9, 1989. The removal of the coal burners and installation of the new natural gas and fuel oil burners is not defined as a modification to the boilers because there is no increase in the emission rate of any pollutant to which a standard applies.

- (c) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP)(326 IAC 14, 20 and 40 CFR Part 61, 63) applicable to this proposed modification.
- (d) The requirements of the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD are not included in this permit for natural gas-fired boilers or the corn-fired boiler. This source is a minor source of hazardous air pollutants (HAPs).

### State Rule Applicability – Entire Source

326 IAC 1-5-2 (Emergency Reduction Plans)

The source has submitted an Emergency Reduction Plan (ERP) on December 13, 1996.

326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 2-8 (FESOP), and 326 IAC 2-3 (Emission Offset)

This source was constructed in LaPorte County in 1949 and is not in one of the twenty-eight listed source categories. Although the source has the potential to emit (PTE) in excess of two hundred fifty (250) tons per year of sulfur dioxide (SO<sub>2</sub>) the source has agreed to the PTE of SO<sub>2</sub> to less than one hundred (100) tons per year. Pursuant to the initial FESOP permit, F091-7589-00004, issued on August 9, 1999, the No. 2 fuel oil used by boilers #1, 2, and 3 is currently limited to 2,800 kgallons per twelve (12) consecutive month period, with compliance determined at the end of each month.

Such that the requirements of 326 IAC 2-2 (PSD) remain not applicable, the fuel oil limit for boilers #1, 2, and 3 will be revised to 2,725 kgallons per twelve (12) consecutive month period, with compliance determined at the end of each month. For the purpose of determining compliance with this limit, one kgallon of fuel oil shall be considered equal to 118 million cubic feet of natural gas equivalents, based on SO<sub>2</sub> emissions. This usage limit is required to limit the source-wide potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period. Boilers #1, 2, and 3 can not burn untreated corn.

This source is located in LaPorte County. LaPorte County was designated by EPA as a nonattainment area for the 8-hour ozone standard in June 2004. The potential to emit of VOC from the emission units at this source is less than 100 tons per year. The potential to emit of NO<sub>x</sub> is greater than 100 tons per year.

- (a) The above mentioned fuel oil or equivalent usage limit to boilers #1, 2, and 3 will simultaneously limit the source-wide potential to emit of NO<sub>x</sub> to less than 100 tons per twelve (12) consecutive month period. Compliance with this limit makes 326 IAC 2-7 (Title V), 326 IAC 2-2 (PSD) and 326 IAC 2-3 (Emission Offset) not applicable.

The allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from boilers #1, 2, and 3 shall not exceed the following:

- (1) When burning No. 2 fuel oil SO<sub>2</sub> emissions shall not exceed 71.0 pounds per kgal.
- (2) When burning natural gas SO<sub>2</sub> emissions shall not exceed 0.60 pounds per MMCF.
- (3) When burning No. 2 fuel oil NO<sub>x</sub> emissions shall not exceed 20.0 pounds per kgal.
- (4) When burning natural gas NO<sub>x</sub> emissions shall not exceed 100 pounds per MMCF.

The allowable emission rate for these units was calculated using uncontrolled emission factors, from AP-42 Chapter 1.4 - Natural Gas Combustion (July 1998 edition), Chapter 1.3 - Fuel Oil Combustion (September 1998 edition)

- (b) Boiler #4 shall burn only untreated corn. The allowable SO<sub>2</sub> and NO<sub>x</sub> emission rates from boiler #4 shall not exceed the following:
- (1) The SO<sub>2</sub> emissions shall not exceed 0.03 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).
  - (2) The NO<sub>x</sub> emissions shall not exceed 0.49 pounds per MMBtu (where the energy content of shelled untreated corn is 6,800 Btu/lb).

The allowable emission rate for these units was calculated using uncontrolled emission factors, from AP-42 Chapter 1.6 - Wood Residue Combustion in Boilers (September 2003 edition).

**326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))**

The source will emit less than 10 tons per year of a single HAP and less than 25 tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

**326 IAC 2-6 (Emission Reporting)**

This source is located in LaPorte County, is not required to operate under a Part 70 Permit, and does not have the potential to emit greater than or equal to five (5) tons per year of lead. Therefore this source is subject only to the additional information requests under 326 IAC 2-6-5.

**State Rule Applicability – Corn Handling, Corn Storage, and Ash Handling**

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each process in the corn handling, corn storage, and ash handling operations shall be determined by the following equation when operating at process weight rates up to sixty thousand (60,000) pounds per hour:

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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour and} \\ P = \text{process weight rate in tons per hour}$$

The following table sets forth the maximum process weight rate for specific emission units and the allowable rate of emissions calculated for that process weight rate. The corn processed is estimated to weigh 56 pounds per bushel.

Emission Unit	Process Weight Throughput (tons/hr)	Particulate Emission Limit (lbs/hr)	Control Description	Calculated Uncontrolled Emissions (lbs/hr)
Truck Unloading Operation	1.34	4.99	NA	0.24
Corn Handling System	1.36	5.04	Baghouse	0.08
Ash Handling System *	$4.17 \times 10^{-2}$	0.49	Cyclone	$2.54 \times 10^{-3}$

\* Ash disposal system maximum capacity provided by the Permittee was 30 tons per month.

Emission calculations based on AP-42 emission factors indicate that each emission unit is able to comply with this limit without using a control device.

**State Rule Applicability – Boilers**

**326 IAC 1-6-3 (Preventive Maintenance Plan)**

The Permittee shall prepare and maintain Preventive Maintenance Plans (PMP) within ninety (90) days after issuance of this permit.

**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.

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

The natural gas-fired boilers, referred to as boiler #1, 2, and 3, were modified after September 21, 1983. Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), the total particulate emissions from boilers #1, 2, and 3 shall not exceed 0.30 pound per million Btu of heat input. This limitation is based on the following equation:

$$Pt = 1.09 / Q^{0.26}$$

Where Pt = Pounds of particulate matter emitted per million Btu heat input (lb/MMBtu).

Q = Total source maximum operating capacity rating in million Btu per hour of heat input.

The corn fired boiler is permitted to be constructed in 2007; therefore the requirements of 326 IAC 6-2-4 apply. The corn fired boiler shall in no case exceed 0.28 lb/MMBtu. This limitation is based on the equation above.

**326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)**

The natural gas-fired boilers, referred to as boiler # 1, 2, and 3, are subject to this rule because the boilers have the potential to emit greater than 25 tons per year or 10 pounds per hour of SO<sub>2</sub>. When combusting No. 2 fuel oil, the SO<sub>2</sub> emissions from each boiler shall not exceed 0.5 pound per million Btu of heat input. In order to comply with this limit, the sulfur content of the No. 2 fuel oil shall not exceed 0.5 weight percent.

The potential to emit SO<sub>2</sub> from the combustion of corn will be less than 25 tons per year and less than 10 pounds per hour, therefore the requirements of 326 IAC 7-1.1 are not applicable.

**326 IAC 7-2-1 (Sulfur Dioxide Compliance Reporting)**

Pursuant to this rule, a quarterly report shall be submitted including the average sulfur content, heat content, the sulfur dioxide emission rate in pounds per million Btu, and the No. 2 fuel oil consumptions. Fuel sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-3-4 for oil combustion.

**326 IAC 8-1-6 (Best Available Control Technology (BACT))**

The boilers 1, 2, 3, and 4 are not subject to this rule because potential to emit VOC is less than 25 tons per year.

**Testing Requirements**

This permit includes SO<sub>2</sub> and NO<sub>x</sub> emissions limits for the corn-fired boiler to render the requirements of 326 IAC 2-7 (Title V), 326 IAC 2-2 (PSD), and 326 IAC 2-3 (Emission Offset) not applicable. There are currently no EPA approved Emission Factors for corn fired boilers.

IDEM has assumed that factors developed for wood residue combustion in boilers represent a reasonable estimate of emissions. To demonstrate compliance these limits, the Permittee shall, no later than 180 days after initial startup of the corn-fired boiler, perform testing for NO<sub>x</sub>, SO<sub>2</sub>, PM, PM10, CO, and VOC. All testing shall be conducted in accordance with Section C - Performance Testing, using methods approved by the Commissioner.

**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 natural gas-fired boilers, referred to as boiler #1, 2, and 3, have applicable compliance monitoring conditions as specified below:
  - (a) When combusting fuel oil, daily visible emissions notations of the boilers 1, 2, and 3 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. 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 start up or shut down time. 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. 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. 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.
  - (b) A quarterly report shall be submitted including the average sulfur content, heat content, the sulfur dioxide emission rate in pounds per million Btu, and the No. 2 fuel oil consumptions. Fuel sampling and analysis data shall be collected pursuant to the procedures specified in 326 IAC 3-3-4 for oil combustion.

2. The corn-fired boiler has applicable compliance monitoring conditions as specified below:

When combusting corn, daily visible emissions notations of the corn-fired boiler shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. 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 start up or shut down time. 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. 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. 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 to ensure compliance with 326 IAC 2-8 (FESOP), 326 IAC 2-2 (PSD), 326 IAC 2-3 (Emission Offset), 326 IAC 6-2 (Particulate Limitations for Sources of Indirect Heating), and 326 IAC 5-1 (Opacity).

### **Conclusion**

The operation of this correctional facility shall be subject to the conditions of the FESOP 091-24264-00004.

**Appendix A: Emission Calculations  
Potential to Emit Summary**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

Process/Emission Unit	Potential To Emit (tons/yr)							
	PM	PM10	SO <sub>2</sub>	VOC	CO	NOx	HCl	HAPs
Boilers B1-B3, Natural Gas	1.22	4.90	0.39	3.54	54.1	64.4	-	1.22
Boilers B1-B3, Fuel Oil	9.39	15.5	333	1.60	23.5	93.9	-	0.19
Boiler B4, Corn	48.2	43.4	3.01	2.05	72.3	59.0	2.29	4.04
Corn and Ash Handling	1.97	0.99	-	-	-	-	-	-
<b>TOTAL =</b>	<b>60.8</b>	<b>64.7</b>	<b>337</b>	<b>7.19</b>	<b>150</b>	<b>217</b>	<b>2.29</b>	<b>5.45</b>

Process/Emission Unit	Potential to Emit After Issuance (tons/yr)							
	PM	PM10	SO <sub>2</sub>	VOC	CO	NOx	HCl	HAPs
Boilers B1-B3, Fuel Oil *	2.73	4.50	96.7	0.46	6.81	27.3	-	0.06
Boiler B4, Corn **	33.7	28.2	3.01	2.05	72.3	59.0	2.29	4.04
Corn and Ash Handling	1.17	0.63	-	-	-	-	-	-
<b>TOTAL =</b>	<b>37.6</b>	<b>33.3</b>	<b>99.7</b>	<b>2.51</b>	<b>79.1</b>	<b>86.3</b>	<b>2.29</b>	<b>4.10</b>

\* Pursuant to 326 IAC 2-8-4, the input of fuel oil to boilers B1 through B3 shall be limited to 2,725 kgals per twelve (12) consecutive month period. For the purpose of determining compliance with this limit, one (1) kgal of fuel oil shall be considered equal to one hundred eighteen (118) million cubic feet of natural gas equivalents, based on sulfur dioxide (SO<sub>2</sub>) emissions. This usage limit is required to limit the source-wide potential to emit of SO<sub>2</sub> to less than 100 tons per twelve (12) consecutive month period.

\* Pursuant to 326 IAC 6-2-4 the total particulate emissions from the corn fired boiler shall in no case exceed 0.28 lb/MMBtu. This unit is controlled by a cyclone.

**Appendix A: Emission Calculations**  
**Criteria Emissions From Boilers B1-B3, Natural Gas Combustion**  
**Small Industrial Boiler, MM BTU/HR <100**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMSCF/yr)
150	1,288

	Pollutant					
Emission Factor (lb/MMSCF)	PM*	PM10*	SO2	NOx**	VOC	CO
Potential to Emit (tons/yr)	1.22	4.90	0.39	64.4	3.54	54.1

Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, each with a maximum heat input capacity of 50 MMBtu/hr.

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

\*\*Emission factor for NOx (Uncontrolled) = 100 lb/MMSCF

Emission factors are from AP-42, Chapter 1.4 - External Combustion Sources-Natural Gas Combustion, 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 [7/98].

All emission factors are based on normal firing.

**Methodology**

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu  
 Potential to Emit (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lb/MMSCF) x 1 ton/2,000 lbs

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

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

HAPs - Organics

Emission Factor (lb/MMSCF)	Benzene 2.10E-03	Dichlorobenzene 1.20E-03	Formaldehyde 7.50E-02	Hexane 1.80E+00	Toluene 3.40E-03
Potential to Emit (tons/yr)	1.35E-03	7.73E-04	4.83E-02	1.16E+00	2.19E-03

HAPs - Metals

Emission Factor (lb/MMSCF)	Lead 5.00E-04	Cadmium 1.10E-03	Chromium 1.40E-03	Manganese 3.80E-04	Nickel 2.10E-03
Potential to Emit (tons/yr)	3.22E-04	7.09E-04	9.02E-04	2.45E-04	1.35E-03

Note: The five highest organic and metal HAPs emission factors provided above are from AP-42, Chapter 1.4, Table 1.4-2, 1.4-3 and 1.4-4 (July, 1998). Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**Methodology**

Potential Throughput (MMSCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMSCF/1,020 MMBtu  
 Potential to Emit (tons/yr) = Potential Throughput (MMSCF/yr) x Emission Factor (lb/MMSCF) x 1 ton/2,000 lbs

**Appendix A: Emission Calculations**  
**Criteria Emissions From Boilers B1-B3, #2 Fuel Oil Combustion**  
**Distillate Oil, MM BTU/HR <100**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

Heat Input Capacity  
(MMBtu/hr)  
150

Potential Throughput  
(kgals/yr)  
9,386

Limited Throughput  
(kgals/yr)  
2,725

S = Weight % Sulfur  
0.5

	Pollutant						
	PM*	PM10*	SO <sub>2</sub>	NOx	VOC	CO	HAPs
Emission Factor (lb/kgal)	2.0	3.3	71 (142.0 S)	20.0	0.34	5.0	4.1E-02
Potential to Emit (tons/yr)	9.39	15.5	333	93.9	1.60	23.5	1.92E-01
Limited Potential to Emit (tons/yr)	2.73	4.50	96.7	27.3	0.46	6.81	5.59E-02

Three (3) natural gas-fired boilers, using No. 2 fuel oil as backup, each with a maximum heat input capacity of 50 MMBtu/hr  
No. 2 Fuel Oil has an average heating value of 140,000 Btu/gal  
Emission factors are from AP-42, Chapter 1.3 - Fuel Oil Combustion, Tables 1.3-1, 1.3-2, 1.3-3, and 1.3-9 (SCC 1-03-005-02/03) [9/98]  
\*PM emission factor is for filterable PM only. PM10 emission factor is for filterable and condensable PM combined

**Methodology**

Potential Throughput (kgals/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 kgal/1,000 gal x 1 gal/0.14 MMBtu  
Potential to Emit (tons/yr) = Potential Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/tor  
Limited Potential to Emit (tons/yr) = Limited Throughput (kgals/yr) x Emission Factor (lb/kgal)/2,000 lb/tor

**Appendix A: Emissions Calculations**  
**Criteria Emission From Boiler #4 - Combusting Untreated Corn**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

Heat Input Capacity  
(MMBtu/hr)

27.5

Throughput of untreated corn \*  
(lb/hr)

4,044

Cyclone Control Efficiency

85% PM  
35% PM10

Emission Factor (lb/MMBtu)	Pollutant					
	PM**	PM10**	SO2	NOx	VOC	CO
	0.40	0.36	0.025	0.49	0.017	0.60
Potential to Emit (tons/yr)	48.2	43.4	3.01	59.0	2.05	72.3
Controlled Potential to Emit (tons/yr)	33.7 ***	28.2	3.01	59.0	2.05	72.3

\* Heat value of shelled untreated corn = 6800 Btu/lb

One bushel of corn at 15.5% moisture = 56 pounds

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

\*\* Pursuant to 326 IAC 6-2-4 the total particulate emissions from the corn fired boiler shall in no case exceed 0.28 lb/MMBtu

All emission factors are based on normal firing.

Emission Factors are from AP-42, Chapter 1.6 - Wood Residue Combustion in Boilers; Tables 1.6-1, 1.6-2, and 1.6-3 - Dry Wood (9/2003)

**Methodology**

Potential to Emit (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

Controlled Potential to Emit (tons/yr) = Potential to Emit (tons/yr) x (1 - % Control Efficiency)

See page 6 for HAPs emissions calculations.

**Appendix A: Emissions Calculations**  
**HAP Emissions From Boiler #4 - Combusting Shelled Corn**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

	HAPs					
	Acrolein	Benzene	Formaldehyde	Hydrogen Chloride	Styrene	Lead
Emission Factor (lb/MMBtu)	4.0E-03	4.2E-03	4.4E-03	1.9E-02	1.9E-03	4.8E-05
Potential to Emit (tons/yr)	0.48	0.51	0.53	2.29	0.23	0.01

**Methodology**

Potential to Emit (tons/yr) = Heat Input Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8760hrs/yr x 1ton/2000lbs

**Appendix A: Emissions Calculations**  
**Particulate Emissions from Corn and Ash Handling Operations**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP Renewal:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

Grain	Max Grain Received (bushels/yr)	Worst Case Operation (hrs/yr)	Worst Case Operation (bushels/hr)	Conversion Factor (lbs/bushel)	Worst Case Operation (lbs/hr)	Throughput (tons/hr)
Corn	420,000	8,760	47.9	56.0	2,685	1.34
Ash *	-	8,760	-	-	83.3	0.04
<b>Total</b>						1.38

\* Ash disposal system maximum capacity provided by the Permittee was 30 tons per month.

	CORN UNLOADING/ RECEIVING		CORN HEADHOUSE AND INTERNAL HANDLING (legs, belts, distributor, etc.)		ASH INTERNAL HANDLING (auger, container)		CORN STORAGE BIN (vent)***	
	PM	PM10	PM	PM10	PM	PM10	PM	PM10
Emission Factor (lb/ton)	0.18	0.059	0.061	0.034	2.2	2.2	0.025	0.0063
Potential to Emit (tons/yr)	1.06	0.35	0.36	0.20	0.40	0.40	0.15	0.04
Control Efficiency	0%	0%	Baghouse		Cyclone		Baghouse	
			90%	90%	85%	35%	90%	90%
Controlled Potential to Emit (tons/yr)	1.06	0.35	0.04	0.02	0.06	0.26	0.01	0.00

Emission factors are from AP-42 Chapter 9.9.1 - Grain Elevators & Processes, Table 9.9.1-1 Particulate Emission Factors for Grain Elevators (Receiving: SCC 3-02-005-51, Handling: SCC 3-02-005-30, Storage: SCC 3-02-005-40) [4/03]

Emission factors for ash handling are from AP-42, Chapter 11.17 Lime Manufacture, Table 11.17-4 (Product Transfer: SCC 3-05-016-15) [2/98]

**Methodology**

Potential to Emit (tons/yr) = Throughput (tons/hr) \* Emission factor (lb/ton) \* 8,760 (hrs/yr) / 2000 (lbs/ton)

Controlled Potential to Emit (tons/yr) = Throughput (tons/hr) \* Emission factor (lb/ton) \* 8,760 (hrs/yr) / 2,000 (lbs/ton) \* (1-Control Efficiency %)

	PM	PM-10
<b>Total Uncontrolled Emissions (tons/yr)</b>	<b>1.97</b>	<b>0.99</b>
<b>Total Controlled Emissions (tons/yr)</b>	<b>1.17</b>	<b>0.63</b>

**Appendix A: Emission Calculations  
PM Emissions From the Corn and Ash Handling  
Demonstration of Compliance with 326 IAC 6-3-2**

**Company Name:** Westville Correctional Facility  
**Address:** State Road 2 and 1100 West, Westville, Indiana 46391  
**FESOP:** 091-24264-00004  
**Reviewer:** ERG/BL  
**Date:** February 6, 2007

**Allowable Emissions Under 326 IAC 6-3-2**

Emissions Unit Description	Maximum (lbs/hr)	Maximum Process Weight (tons/hr)	PM Emission Factor (lbs/ton)	Control Device(s)	Collection and Control Efficiency (%)	PM Emissions Before Control (lbs/hr)	326 IAC 6-3-2 Allowable PM Emissions (lbs/hr)	PM Emissions After Control (lbs/hr)
Truck Unloading Operation	2,685	1.34	0.18	NA	0%	0.24	4.99	0.24
Corn Handling System	2,722	1.36	0.061	Baghouse	90%	0.08	5.04	0.01
Ash Handling System	83.3	0.04	2.2	Cyclone	85%	0.09	0.49	0.01

Allowable emissions under 326 IAC 6-3-2 are calculated using the equation where the process weight rate up to sixty thousand (60,000) pounds per hour:

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

where

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour

Corn handling emission factors are from AP-42, Chapter 9.9.1 - Grain Elevators & Processes, Table 9.9.1-1 Particulate Emission Factors for Grain Elevators [4/03

Ash handling emission factors are from AP-42, Chapter 11.17 Lime Manufacture, Table 11.17-4 Product Transfer: SCC 3-05-016-15 [2/98]

**Methodology**

Maximum Grain Throughput (tons/hr) = Maximum Grain Throughput (bushels/hr) x 60 (lbs/bushel) x 1 ton/2000 lbs

PTE of PM/PM10 Before Control (lbs/hr) = Maximum Throughput (tons/hr) x Emission factor (lbs/ton)

PTE of PM/PM10 After Control (tons/yr) = Maximum Throughput (tons/hr) x Emission factor (lbs/ton) x (1- Control Efficiency (%))