



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 19, 2012

RE: JFS Milling, Inc. / 083-32071-00058

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

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, 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, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07



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New Source Construction and Federally Enforceable State Operating Permit (FESOP) OFFICE OF AIR QUALITY

**JFS Milling, Inc.
5167 North State Road 67
Bruceville, Indiana 47516**

(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.

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. F083-32071-00058	
Issued by:  Nathan C. Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 19, 2012 Expiration Date: December 19, 2017

TABLE OF CONTENTS

A. SOURCE SUMMARY.....	5
A.1 General Information [326 IAC 2-8-3(b)]	
A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]	
A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]	
A.4 FESOP Applicability [326 IAC 2-8-2]	
B. GENERAL CONDITIONS	8
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] [IC 13-17-12]	
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 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]	
B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]	
B.12 Compliance Order Issuance [326 IAC 2-8-5(b)]	
B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]	
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 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.18 Permit Renewal [326 IAC 2-8-3(h)]	
B.19 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]	
B.20 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]	
B.21 Source Modification Requirement [326 IAC 2-8-11.1]	
B.22 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.23 Transfer of Ownership or Operational Control [326 IAC 2-8-10]	
B.24 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.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]	
C. SOURCE OPERATION CONDITIONS.....	18
Emission Limitations and Standards [326 IAC 2-8-4(1)]	
C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]	
C.2 Overall Source Limit [326 IAC 2-8]	
C.3 Opacity [326 IAC 5-1]	
C.4 Open Burning [326 IAC 4-1] [IC 13-17-9]	
C.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]	
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 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.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]
- 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 - Animal Feed Mill 26

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

- D.1.1 PSD Minor Limit: PM [326 IAC 2-2]
- D.1.2 FESOP and PSD Minor Limits: PM10 and PM2.5 [326 IAC 2-8][326 IAC 2-2]
- D.1.3 Particulate [326 IAC 6-3-2]
- D.1.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]
- D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

Compliance Determination Requirements

- D.1.6 Particulate Control (PM/PM10/PM2.5)
- D.1.7 Testing Requirements [326 IAC 2-8-5(a)(1), (4)] [326 IAC 2-1.1-11]

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

- D.1.8 Visible Emissions Notations [Cyclone]
- D.1.9 Parametric Monitoring [Baghouse]
- D.1.10 Broken or Failed Bag Detection
- D.1.11 Cyclone Failure Detection

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

E.1. NESHAP REQUIREMENTS - Animal Feed Mill..... 33

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements
[326 IAC 2-8-4(1)]**

- E.1.1 General Provisions Relating to the National Emission Standards for Hazardous Air
Pollutants under 40 CFR 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]
- E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources:
Prepared Feeds Manufacturing [40 CFR 63, Subpart DDDDDDD]
- E.1.3 Testing Requirements [40 CFR Part 63, Subpart DDDDDDD][326 IAC 2-8-5(a)(1),(4)]
[326 IAC 2-1.1-11]

E.2. NSPS REQUIREMENTS - Boilers 36

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

- E.2.1 General Provisions relating to New Source Performance Standards (NSPS) [326 IAC 12-1]
[40 CFR Part 60, Subpart A]
- E.2.2 New Source Performance Standards for Small Industrial-Commercial-Institutional Steam
Generating Units [326 IAC 12] [40 CFR 60, Subpart Dc]

Certification Form 37
Emergency Occurrence Form 38
FESOP Quarterly Report Forms 40
Quarterly Deviation and Compliance Monitoring Report Form 43
Affidavit of Construction 45
NESHAP DDDDDDD (7D) - Standards for Area Sources: Prepared Feeds Mfg Attachment A
NSPS Dc - Standards for Small Industrial-Commercial-Institutional Steam Generating Units Attachment 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 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

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

The Permittee owns and operates a stationary animal feed mill.

Source Address:	5167 North State Road 67, Bruceville, Indiana 47516
General Source Phone Number:	(812) 683-4200
SIC Code:	2048 (Prepared Feed and Feed Ingredients for Animals and Fowls, Except Dogs and Cats)
County Location:	Knox
Source Location Status:	Attainment for all 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 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) Truck receiving pit #1, identified as ES-1, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-1, and exhausting to stack# ES-1
- (b) Truck receiving pit #2, identified as ES-2, having a maximum throughput capacity of 300 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-2, and exhausting to stack# ES-2
- (c) Mill Receiving Distribution, identified as ES-3, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-3, and exhausting to stack# ES-3;
- (d) Hammermill #1, identified as ES-4, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-4, and exhausting to stack# ES-4
- (e) Hammermill #2, identified as ES-5, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-5, and exhausting to stack# ES-5
- (f) Ground Grain Distribution, identified as ES-6, having a maximum throughput capacity of 60 tons ground grain/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-6, and exhausting to stack# ES-6;
- (g) Pneumatic Truck Receiving, identified as ES-7, having a maximum throughput capacity of 25 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-7, and exhausting to stack# ES-7;

- (h) Mixed Feed System, identified as ES-8, having a maximum throughput capacity of 125 tons of ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-8, and exhausting to stack# ES-8;
- (i) Pellet Cooling #1, identified as ES-9, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, with particulate emissions controlled by one (1) integral cyclone system, consisting of two (2) cyclones in series, identified as C-1, and exhausting to stack# ES-9;
- (j) Boiler #1, identified as ES-11, with a maximum heat input capacity of 12.6 MMBtu/hr, firing natural gas (only), uncontrolled, and exhausting to stack# ES-11;

Under 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units, Boiler #1 is considered an affected steam generating unit.

- (k) Finished Feed Loadout, identified as ES-13, having a maximum throughput capacity of 400 tons of pelleted animal feed/hr, uncontrolled and exhausting to stack# ES-13;
- (l) Three (3) Whole Grain Storage Tanks, jointly identified as ES-14 and singly identified as Tank 101, Tank 102, and Tank 103, having a maximum throughput capacity of 560 tons of whole grain/hr, and a maximum combined storage capacity of 570,000 Bushels, uncontrolled and-exhausting to stack# ES-14;
- (m) Micro Ingredients System, identified as ES-15, having a maximum throughput capacity of 10 tons of micro ingredients/hr, uncontrolled and exhausting inside the building;
- (n) Finished Feed Distribution, identified as ES-16, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, completely enclosed and feeding directly into the Finished Feed Loadout (ES-13), uncontrolled and exhausting to stack# ES-13;

Note: This animal feed mill is specifically designed to produce a maximum of 10,000 tons of finished feed per week, or 520,000 tons of finished feed per year, based on the existence of two (2) pellet mills and two (2) boilers. The pelleting operation is the limiting factor for this facility, and acts as an operational bottleneck.

Under 40 CFR 63, Subpart DDDDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing, this stationary animal feed mill is considered an affected prepared feeds manufacturing facility.

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

This stationary source also includes the following insignificant activities:

- (a) Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;
- (b) Blowdown for the following:
 - (1) Boiler; and
 - (2) Compressors.
- (c) Air compressors and pneumatically operated equipment, including hand tools;
- (d) Activities performed using hand-held equipment including the following:

- (1) Cutting, excluding cutting torches;
 - (2) Drilling;
 - (3) Grinding; and
 - (4) Surface grinding.
- (e) The following equipment related to manufacturing activities not resulting in the emission of HAPs:
- (1) Cutting torches;
 - (2) Soldering equipment; and
 - (3) Welding equipment.
- (f) Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOC or HAP;
- (g) Storage tanks, reservoirs, and pumping and handling equipment of any size containing soap, wax, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized;
- (h) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs less than twelve thousand (12,000) gallons, storing lubricating oils;
- (i) Application of greases and lubricants as temporary protective coatings;
- (j) Closed loop heating and cooling systems;
- (k) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (l) One (1) Truck washing station;
- (m) Paved roads and parking lots with public access [326 IAC 6-4]

A.4 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 this permit if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

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

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

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

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

- (a) This permit, F083-32071-00058, 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] [IC 13-17-12]

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

- (a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:
 - (1) it contains a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent 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.11 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.

- (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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 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.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, 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 and Enforcement 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

The Permittee shall implement the PMPs.

- (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. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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, or Southwest Regional Office and the Southeast 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 and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Southwest Regional Office phone: (812) 380-2305; fax: (812) 380-2304.
Southeast Regional Office phone: (812) 358 2027; fax: (812) 358 2058.

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

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

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

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

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

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.

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

- (a) All terms and conditions of permits established prior to F083-32071-00058 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 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.18 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 a

certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.19 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:
- Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.20 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) and (c) without a prior permit revision, if each of the following conditions is met:
- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;

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

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

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b)(1) and (c). 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)(1) and (c).

- (b) Emission Trades [326 IAC 2-8-15(b)]
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(b).
- (c) Alternative Operating Scenarios [326 IAC 2-8-15(c)]
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.21 Source Modification Requirement [326 IAC 2-8-11.1]

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

B.22 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.23 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new Permittee. The application shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.24 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 no later than 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.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

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

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

(a) Pursuant to 326 IAC 2-8:

- (1) The potential to emit any regulated pollutant, except particulate matter (PM) and greenhouse gases (GHGs), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.
- (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.
- (4) The potential to emit greenhouse gases (GHGs) from the entire source shall be limited to less than one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per twelve (12) consecutive month period.

(b) Pursuant to 326 IAC 2-2 (PSD), 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.

(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 5-1-1 (Applicability) and 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 except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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 demolitions start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

- (a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or of initial start-up, whichever is later, to begin such monitoring. If due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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 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.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.

- (b) These ERPs shall be submitted for approval to:
Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than 180 days from the date on which this source commences operation.

The ERP does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to 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 excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown, or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning 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 normal or usual manner of operation.
- (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 record the reasonable response steps 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) 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.
- (1) Support information includes the following:
 - (A) All calibration and maintenance records.
 - (B) All original strip chart recordings for continuous monitoring instrumentation.
 - (C) Copies of all reports required by the FESOP.
 - (2) Records of required monitoring information include the following:
 - (A) The date, place, as defined in this permit, and time of sampling or measurements.
 - (B) The dates analyses were performed.
 - (C) The company or entity that performed the analyses.
 - (D) The analytical techniques or methods used.

- (E) The results of such analyses.
- (F) The operating conditions as existing at the time of sampling or measurement.

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, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

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. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. 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 applicable standards for recycling and emissions reduction.

SECTION D.1

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description [326 IAC 2-8-4(10)]: Animal Feed Mill

- (a) Truck receiving pit #1, identified as ES-1, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-1, and exhausting to stack# ES-1
- (b) Truck receiving pit #2, identified as ES-2, having a maximum throughput capacity of 300 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-2, and exhausting to stack# ES-2
- (c) Mill Receiving Distribution, identified as ES-3, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-3, and exhausting to stack# ES-3;
- (d) Hammermill #1, identified as ES-4, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-4, and exhausting to stack# ES-4
- (e) Hammermill #2, identified as ES-5, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-5, and exhausting to stack# ES-5
- (f) Ground Grain Distribution, identified as ES-6, having a maximum throughput capacity of 60 tons ground grain/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-6, and exhausting to stack# ES-6;
- (g) Pneumatic Truck Receiving, identified as ES-7, having a maximum throughput capacity of 25 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-7, and exhausting to stack# ES-7;
- (h) Mixed Feed System, identified as ES-8, having a maximum throughput capacity of 125 tons of ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-8, and exhausting to stack# ES-8;
- (i) Pellet Cooling #1, identified as ES-9, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, with particulate emissions controlled by one (1) integral cyclone system, consisting of two (2) cyclones in series, identified as C-1, and exhausting to stack# ES-9;
- (j) Boiler #1, identified as ES-11, with a maximum heat input capacity of 12.6 MMBtu/hr, firing natural gas (only), uncontrolled, and exhausting to stack# ES-11;

Under 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units, Boiler #1 is considered an affected steam generating unit.
- (k) Finished Feed Loadout, identified as ES-13, having a maximum throughput capacity of 400 tons of pelleted animal feed/hr, uncontrolled and exhausting to stack# ES-13;
- (l) Three (3) Whole Grain Storage Tanks, jointly identified as ES-14 and singly identified as Tank 101, Tank 102, and Tank 103, having a maximum throughput capacity of 560 tons of whole grain/hr, and a maximum combined storage capacity of 570,000 Bushels, uncontrolled and exhausting to stack# ES-14;

- (m) Micro Ingredients System, identified as ES-15, having a maximum throughput capacity of 10 tons of micro ingredients/hr, uncontrolled and exhausting inside the building;
- (n) Finished Feed Distribution, identified as ES-16, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, completely enclosed and feeding directly into the Finished Feed Loadout (ES-13), uncontrolled and exhausting to stack# ES-13;

Note: This animal feed mill is specifically designed to produce a maximum of 10,000 tons of finished feed per week, or 520,000 tons of finished feed per year, based on the existence of two (2) pellet mills and two (2) boilers. The pelleting operation is the limiting factor for this facility, and acts as an operational bottleneck.

Under 40 CFR 63, Subpart DDDDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing, this stationary animal feed mill is considered an affected prepared feeds manufacturing facility.

(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 PSD Minor Limit: PM [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM emissions from the following emission unit(s) shall not exceed the limitations listed in the table below:

Unit ID	Unit Description	Annual Material Throughput Limit (tons/yr)	PM Emission Limit (lbs/ton)
ES-1, ES-2	Truck Receiving Pits #1 & #2	520,000	0.035
ES-3	Mill Receiving Distribution	520,000	0.061
ES-4, ES-5	Hammermills #1 & #2	312,000	1.064
ES-6	Ground Grain Distribution	312,000	0.061
ES-13	Finish Feed Load Out	520,000	0.086

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 FESOP and PSD Minor Limits: PM10 and PM2.5 [326 IAC 2-8-4][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (FESOP), and in order to render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM10 and PM2.5 emissions from the following emission unit(s) shall not exceed the limitations listed in the table below:

Unit ID	Unit Description	Annual Material Throughput Limit (tons/yr)	PM10 Emission Limit (lbs/ton)	PM2.5 * Emission Limit (lbs/ton)
ES-1, ES-2	Truck Receiving Pits #1 & #2	520,000	0.0078	0.0013
ES-3	Mill Receiving Distribution	520,000	0.034	0.0058
ES-4, ES-5	Hammermills #1 & #2	312,000	0.390	0.531
ES-6	Ground Grain Distribution	312,000	0.034	0.0058
ES-13	Finish Feed Load Out	520,000	0.029	0.0049

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the units in the animal feed processing operations shall not exceed the corresponding pound per hour limitations listed in the table below:

Emission Unit	Process Weight Rate		326 IAC 6-3 Allowable Particulate Emission Rate (lbs/hour)
	(tons/hr)	(lbs/hr)	
Truck Receiving Pit #1 (ES-1)	200	400,000	58.51
Truck Receiving Pit #2 (ES-2)	300	600,000	63.00
Mill Receiving Distribution (ES-3)	200	400,000	58.51
Hammermill #1 (ES-4)	30	60,000	40.04
Hammermill #2 (ES-5)	30	60,000	40.04
Ground Grain Distribution (ES-6)	200	400,000	58.51
Pneumatic Truck Receiving (ES-7)	25	50,000	35.43
Mixed Feed System (ES-8)	125	250,000	53.55
Pellet Cooling #1 (ES-9)	50	100,000	44.58
Finish Feed Load Out Area (ES-13)	400	800,000	66.31
Grain Tanks (ES-14/ Tanks 101 - 103)	300	600,000	63.00
Micro Ingredients System	10	20,000	19.18
Finished Feed Distribution (ES-16)	50	100,000	44.58

These limitations are based on the following equations:

- (a) 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:

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

and

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

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

When the process weight rate exceeds two hundred (200) tons per hour, the allowable emission may exceed that calculated by the above equation provided the concentration of particulate in the discharge gases to the atmosphere is less than one-tenth (0.10) pound per one thousand (1,000) pounds of gases.

D.1.4 Particulate Emission Limitations for Sources of Indirect Heating [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating: Emission limitations for facilities specified in 326 IAC 6-2-1(d)), the particulate emissions from Boiler #1 (ES-11), shall not exceed 0.56 pound per million British thermal units (lb/MMBtu) of heat input.

This limitation is based on the following equation:

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

where:

Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input

Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) 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 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.

D.1.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan is required for these facilities and any corresponding control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.6 Particulate Control (PM/PM10/PM2.5)

- (a) In order to comply with Conditions D.1.1 and D.1.2, the baghouses (F-4 and F-5) serving Hammermills #1 & #2 (ES-4, ES-5) shall be in operation and control emissions from each of the Hammermills at all times when the corresponding Hammermill is in operation.
- (b) In order to comply with Condition D.1.3, the integral cyclone system (C-1), consisting of two (2) cyclones in series, serving Pellet Cooling #1 (ES-9) shall be in operation and control emissions from the pellet cooler at all times when the pellet cooler is in operation.
- (c) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

- (a) In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM, PM10, and PM2.5 testing of the Baghouse F-4, controlling particulate emissions from Hammermill #1, not later than 180 days after startup, utilizing methods approved by the Commissioner. These 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.

- (b) In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM, PM10, and PM2.5 testing of the Baghouse F-5, controlling particulate emissions from Hammermill #2, not later than 180 days after startup, utilizing methods approved by the Commissioner. These 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.
- (c) In order to demonstrate compliance with Condition D.1.3, the Permittee shall perform PM testing of the integral cyclone system (C-1), consisting of two (2) cyclones in series, serving Pellet Cooling #1 (ES-9), not later than 180 days after startup, utilizing methods approved by the Commissioner. These 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee’s obligation with regard to the performance testing required by this condition.

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

D.1.8 Visible Emissions Notations [Cyclone]

- (a) Visible emissions notations of Pellet Cooling #1's integral cyclone system (C-1) stack exhaust (ES-9), shall be performed once per day during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. An abnormal visible emission notation is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.1.9 Parametric Monitoring [Baghouse]

The Permittee shall record the pressure drop across each of the two (2) baghouses (F-4 and F-5), used in conjunction with Hammermill #1 and Hammermill #2 (ES-4 & ES-5), at least once per day when the corresponding emission unit is in operation. When, for any one reading, the pressure drop across a baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for each baghouse is a pressure drop between three (3.0) and five (5.0) inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee’s obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.1.10 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. 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).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, or dust traces.

D.1.11 Cyclone Failure Detection

In the event that cyclone failure has been observed, the following shall apply:

- (a) For a cyclone controlling emissions from a process operated continuously, the failed unit and the associated process shall be shut down immediately until the failed unit has 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).
- (b) For a cyclone controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. 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).

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

D.1.12 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.1 and D.1.2, the Permittee shall keep records of the material throughput to the Truck Receiving Pits #1 & #2, Mill Receiving Distribution, Hammermills #1 & #2, Ground Grain Distribution, and the Finish Feed Load Out each month and each compliance period.
- (b) To document the compliance status with Condition D.1.8, the Permittee shall maintain records of visible emission notations of Pellet Cooling #1's integral cyclone system (C-1) stack exhaust (ES-9) once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g., the process did not operate that day).
- (c) To document the compliance status with Conditions D.1.9, the Permittee shall maintain records once per day of the pressure drop during normal operation. The Permittee shall

include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g., the process did not operate that day).

- (d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.13 Reporting Requirements

Quarterly summaries of the information to document compliance with Conditions D.1.1 and D.1.2 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION E.1

NESHAP REQUIREMENTS

Emissions Unit Description: Animal Feed Mill

- (a) Truck receiving pit #1, identified as ES-1, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-1, and exhausting to stack# ES-1
- (b) Truck receiving pit #2, identified as ES-2, having a maximum throughput capacity of 300 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-2, and exhausting to stack# ES-2
- (c) Mill Receiving Distribution, identified as ES-3, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-3, and exhausting to stack# ES-3;
- (d) Hammermill #1, identified as ES-4, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-4, and exhausting to stack# ES-4
- (e) Hammermill #2, identified as ES-5, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-5, and exhausting to stack# ES-5
- (f) Ground Grain Distribution, identified as ES-6, having a maximum throughput capacity of 60 tons ground grain/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-6, and exhausting to stack# ES-6;
- (g) Pneumatic Truck Receiving, identified as ES-7, having a maximum throughput capacity of 25 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-7, and exhausting to stack# ES-7;
- (h) Mixed Feed System, identified as ES-8, having a maximum throughput capacity of 125 tons of ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-8, and exhausting to stack# ES-8;
- (i) Pellet Cooling #1, identified as ES-9, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, with particulate emissions controlled by one (1) integral cyclone system, consisting of two (2) cyclones in series, identified as C-1, and exhausting to stack# ES-9;
- (j) Boiler #1, identified as ES-11, with a maximum heat input capacity of 12.6 MMBtu/hr, firing natural gas (only), uncontrolled, and exhausting to stack# ES-11;

Under 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units, Boiler #1 is considered an affected steam generating unit.
- (k) Finished Feed Loadout, identified as ES-13, having a maximum throughput capacity of 400 tons of pelleted animal feed/hr, uncontrolled and exhausting to stack# ES-13;
- (l) Three (3) Whole Grain Storage Tanks, jointly identified as ES-14 and singly identified as Tank 101, Tank 102, and Tank 103, having a maximum throughput capacity of 560 tons of whole grain/hr, and a maximum combined storage capacity of 570,000 Bushels, uncontrolled and exhausting to stack# ES-14;

(m) Micro Ingredients System, identified as ES-15, having a maximum throughput capacity of 10 tons of micro ingredients/hr, uncontrolled and exhausting inside the building;

(n) Finished Feed Distribution, identified as ES-16, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, completely enclosed and feeding directly into the Finished Feed Loadout (ES-13), uncontrolled and exhausting to stack# ES-13;

Note: This animal feed mill is specifically designed to produce a maximum of 10,000 tons of finished feed per week, or 520,000 tons of finished feed per year, based on the existence of two (2) pellet mills and two (2) boilers. The pelleting operation is the limiting factor for this facility, and acts as an operational bottleneck.

Under 40 CFR 63, Subpart DDDDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing, this stationary animal feed mill is considered an affected prepared feeds manufacturing facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAPs) Requirements [326 IAC 2-8-4(1)]

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to §63.11625, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 1 of 40 CFR Part 63, Subpart DDDDDDD, and in accordance with the schedule in 40 CFR 63 Subpart DDDDDDD.

(b) Pursuant to 40 CFR 63.12, the Permittee shall submit all required notifications and reports to:

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

E.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing [40 CFR 63, Subpart DDDDDDD]

The Permittee that owns or operates a prepared feeds manufacturing facility that uses materials containing chromium and/or manganese, and is an area source of emissions of hazardous air pollutants (HAP), shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDDDD (included as Attachment A of this permit), and must achieve compliance upon startup of the affected source, or by the date that you commence using materials containing chromium and/or manganese, whichever is later:

- | | |
|---|----------------------|
| (1) 40 CFR 63.11619(a), (b)(2), (b)(3), (c), (e); | (6) 40 CFR 63.11624; |
| (2) 40 CFR 63.11620(b); | (7) 40 CFR 63.11625; |
| (3) 40 CFR 63.11621; | (8) 40 CFR 63.11626; |
| (4) 40 CFR 63.11622; | (9) 40 CFR 63.11627; |
| (5) 40 CFR 63.11623; | (10) Table 1. |

E.1.3 Testing Requirements [40 CFR Part 63, Subpart DDDDDDD] [326 IAC 2-8-5(a)(1), (4)]
[326 IAC 2-1.1-11]

The Permittee shall perform the stack testing required under NESHAPs 40 CFR 63 Subpart DDDDDDD, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least once every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

Alternately, pursuant to §63.11621(e)(1), the company may choose to demonstrate that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater by providing a copy of the Manufacturer specifications, or Certification by a professional engineer or responsible official, instead of conducting the 5-year repeat performance test in accordance with §63.11623.

SECTION E.2

NSPS REQUIREMENTS

Emissions Unit Description: Boilers

- (j) Boiler #1, identified as ES-11, with a maximum heat input capacity of 12.6 MMBtu/hr, firing natural gas (only), uncontrolled, and exhausting to stack# ES-11;

Under 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units, Boiler #1 is considered an affected steam generating unit.

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

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

E.2.1 General Provisions Relating to NSPS [326 IAC 12-1] [40 CFR 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 Boiler #1, identified as ES-11, except as otherwise specified in 40 CFR 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

E.2.2 NSPS Subpart Dc Requirements - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Dc] [326 IAC 12]

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Dc (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, for Boiler #1, identified as ES-11:

- (a) 40 CFR 60.40c(a), (b), (c), (d)
- (b) 40 CFR 60.41c
- (c) 40 CFR 60.48c(a)(1), (g), (i)

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

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

Source Name: JFS Milling, Inc.
Source Address: 5167 North State Road 67, Bruceville, Indiana 47516
FESOP Permit No.: F083-32071-00058

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Date:

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

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

Source Name: JFS Milling, Inc.
Source Address: 5167 North State Road 67, Bruceville, Indiana 47516
FESOP Permit No.: F083-32071-00058

This form consists of 2 pages

Page 1 of 2

- This is an emergency as defined in 326 IAC 2-7-1(12)
- The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
 - The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: JFS Milling, Inc.
 Source Address: 5167 North State Road 67, Bruceville, IN 47516
 FESOP No.: F083-32071-00058
 Facility: Truck Receiving Pits #1 & #2 and Mill Receiving Distribution
Parameter: Raw Material Throughput
 Limit: The amount of raw materials handled in Truck Receiving Pits #1 & #2 and the Mill Receiving Distribution system shall not exceed 520,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Raw Materials Used This Month (tons)	Raw Materials Used Previous 11 Months (tons)	12 Month Total Raw Materials Usage (tons)

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: JFS Milling, Inc.
Source Address: 5167 North State Road 67, Bruceville, IN 47516
FESOP No.: F083-32071-00058
Facility: Hammermills #1 & #2 and Ground Grain Distribution
Parameter: Raw Material Throughput
Limit: The amount of raw materials processed through Hammermills #1 & #2 and the Ground Grain Distribution system shall not exceed 312,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Raw Materials Used This Month (tons)	Raw Materials Used Previous 11 Months (tons)	12 Month Total Raw Materials Usage (tons)

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
Deviation has been reported on _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

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

FESOP Quarterly Report

Source Name: JFS Milling, Inc.
 Source Address: 5167 North State Road 67, Bruceville, IN 47516
 FESOP No.: F083-32071-00058
 Facility: Animal Feed Mill
Parameter: Finished Animal Feed Throughput
 Limit: The amount of finished animal feed processed through the Finished Feed Load Out system shall not exceed 520,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

QUARTER: _____ YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	Pelleted Animal Feed Processed This Month (tons)	Pelleted Animal Feed Processed Previous 11 Months (tons)	12 Month Total Pelleted Animal Feed Processed (tons)

- No deviation occurred in this quarter.
- Deviation/s occurred in this quarter.
 Deviation has been reported on _____

Submitted by: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE AND ENFORCEMENT BRANCH
 FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: JFS Milling, Inc.
 Source Address: 5167 North State Road 67, Bruceville, Indiana 47516
 FESOP Permit No.: F083-32071-00058

Months: _____ **to** _____ **Year:** _____

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

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

JFS Milling, Inc.
5167 North State Road 67
Bruceville, Indiana 47516

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 JFS Milling, Inc. 5167 North State Road 67, Bruceville, Indiana 47516, completed construction of the animal feed mill on _____ in conformity with the requirements and intent of the construction permit application received by the Office of Air Quality on June 29, 2012 and as permitted pursuant to New Source Construction Permit and Federally Enforceable State Operating Permit No. F083-32071-00058, Plant ID No. 083-00058 issued on _____.
5. **Permittee, please cross out the following statement if it does not apply:** Additional (operations/facilities) were constructed/substituted as described in the attachment to this document and were not made in accordance with the construction permit.

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)

**New Source Construction and
Federally Enforceable State
Operating Permit
(FESOP)
OFFICE OF AIR QUALITY**

**JFS Milling, Inc.
5167 North State Road 67
Bruceville, IN 47516**

Attachment A

Title 40: Protection of Environment

**[PART 63—NATIONAL EMISSION STANDARDS
FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES](#)**

**Subpart DDDDDDD - NESHAPs for Area Sources:
Prepared Feeds Manufacturing**

F083-32071-00058

Subpart DDDDDDD—National Emission Standards for Hazardous Air Pollutants for Area Sources: Prepared Feeds Manufacturing

Source: 75 FR 546, Jan. 5, 2010, unless otherwise noted.

Applicability and Compliance Dates

§ 63.11619 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate a prepared feeds manufacturing facility that uses a material containing chromium or a material containing manganese and is an area source of emissions of hazardous air pollutants (HAP).

(b) The provisions of this subpart apply to each new and existing prepared feeds manufacturing affected source. A prepared feeds manufacturing affected source is the collection of all equipment and activities necessary to produce animal feed from the point in the process where a material containing chromium or a material containing manganese is added, to the point where the finished animal feed product leaves the facility. This includes, but is not limited to, areas where materials containing chromium and manganese are stored, areas where materials containing chromium and manganese are temporarily stored prior to addition to the feed at the mixer, mixing and grinding processes, pelleting and pellet cooling processes, packing and bagging processes, crumblers and screens, bulk loading operations, and all conveyors and other equipment that transfer the feed materials throughout the manufacturing facility.

(1) A prepared feeds manufacturing affected source is existing if you commenced construction or reconstruction of the facility on or before July 27, 2009.

(2) A prepared feeds manufacturing affected source is new if you commenced construction or reconstruction of the facility after July 27, 2009.

(3) A collection of equipment and activities necessary to produce animal feed at a prepared feeds manufacturing facility becomes an affected source when you commence using a material containing chromium or a material containing manganese.

(c) An affected source is no longer subject to this subpart if the facility stops using materials containing chromium or manganese.

(d) This subpart does not apply to the facilities identified in paragraphs (d)(1) and (2) of this section.

(1) Prepared feeds manufacturing facilities that do not add any materials containing chromium or manganese to any product manufactured at the facility.

(2) Research or laboratory facilities as defined in section 112(c)(7) of the Clean Air Act (CAA).

(e) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

§ 63.11620 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart by no later than January 5, 2012.

(b) If you own or operate a new affected source, you must achieve compliance with the applicable provisions of this subpart by January 5, 2010, or upon startup of your affected source, whichever is later.

(c) If you own or operate a facility that becomes an affected source in accordance with §63.11619 after the applicable compliance date in paragraphs (a) or (b) of this section, you must achieve compliance with the applicable provisions of this subpart by the date that you commence using a material containing manganese or a material containing chromium.

(d) If the average daily feed production level exceeds 50 tons per day for a calendar year for a facility not complying with the requirement in §63.11621(e) to install and operate a cyclone to control emissions from pelleting operations, you must comply with §63.11621(e) and all associated requirements by July 1 of the year following the one-year period.

Standards, Monitoring, and Compliance Requirements

§ 63.11621 What are the standards for new and existing prepared feeds manufacturing facilities?

You must comply with the management practices and standards in paragraphs (a) through (d) of this section at all times. For pelleting operations at prepared feeds manufacturing facilities with an average daily feed production level exceeding 50 tons per day, you must also comply with the requirements in paragraph (e) of this section at all times if you are a new source, and if you are an existing source, you must also comply with the requirements in paragraph (f) of this section at all times.

(a) In all areas of the affected source where materials containing chromium or manganese are stored, used, or handled, you must comply with the management practices in paragraphs (a)(1) and (2) of this section.

(1) You must perform housekeeping measures to minimize excess dust. These measures must include, but not be limited to, the practices specified in paragraphs (a)(1)(i) through (iii) of this section.

(i) You must use either an industrial vacuum system or manual sweeping to reduce the amount of dust;

(ii) At least once per month, you must remove dust from walls, ledges, and equipment using low pressure air or by other means, and then sweep or vacuum the area;

(iii) You must keep exterior doors in the immediate affected areas shut except during normal ingress and egress, as practicable. This paragraph (a)(1)(iii) does not apply to areas where finished product is stored in closed containers, and no other materials containing chromium or manganese are present.

(2) You must maintain and operate all process equipment in accordance with manufacturer's specifications and in a manner to minimize dust creation.

(b) You must store any raw materials containing chromium or manganese in closed containers.

(c) The mixer where materials containing chromium or manganese are added must be covered at all times when mixing is occurring, except when the materials are being added to the mixer. Materials containing chromium or manganese must be added to the mixer in a manner that minimizes emissions.

(d) For the bulk loading process where materials containing chromium or manganese are loaded into trucks or railcars, you must lessen fugitive emissions by reducing the distance between the loadout spout and the vehicle being loaded by either paragraph (d)(1) or (d)(2) of this section.

(1) Use a device of any kind at the bulk loadout spout that minimizes the distance to the vehicle being loaded.

(2) Use any other means to minimize the distance between the loadout spout and the vehicle being loaded.

(e) For the pelleting operations at new prepared feeds manufacturing facilities with an average daily feed production level exceeding 50 tons per day, you must capture emissions and route them to a cyclone designed to reduce emissions of particulate matter by 95 percent or greater. You must also comply with the provisions in paragraphs (e)(1) through (3) of this section.

(1) You must demonstrate that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater using one of the methods specified in paragraphs (e)(1)(i) through (iii) of this section.

(i) Manufacturer specifications;

(ii) Certification by a professional engineer or responsible official; or

(iii) A performance test conducted in accordance with §63.11623 of this section.

(2) You must establish an inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone in accordance with the applicable requirement in paragraphs (e)(2)(i), (ii), or (iii) of this section.

(i) If you demonstrate the cyclone design efficiency using manufacturer specifications in accordance with paragraph (e)(1)(i) of this section, the inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone must be provided by the manufacturer.

(ii) If you demonstrate the cyclone design efficiency using certification by a professional engineer or responsible official in accordance with paragraph (e)(1)(ii) of this section, this certification must include calculations to establish an inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone.

(iii) If you demonstrate the cyclone design efficiency using a performance test in accordance with paragraph (e)(1)(iii) of this section, you must monitor the inlet flow rate, inlet velocity, pressure drop, or fan amperage during the test and establish a range that represents proper operation of the cyclone based on the data obtained during the test.

(3) You must maintain and operate the cyclone in accordance with manufacturer's specifications. If manufacturer's specifications are not available, you must develop and follow standard maintenance and operating procedures that ensure proper operation of the cyclone.

(f) For the pelleting operations at existing prepared feeds manufacturing facilities with an average daily feed production level exceeding 50 tons per day, you must capture emissions and route them to a cyclone. The cyclone must be maintained in accordance with good air pollution control practices and manufacturer's specifications and operating instructions, if available. If manufacturer's specifications and operating instructions are not available, you must develop and follow standard operating procedures that ensure proper operation and maintenance of the cyclone.

[75 FR 546, Jan. 5, 2010, as amended at 76 FR 80265, Dec. 23, 2011]

§ 63.11622 What are the monitoring requirements for new and existing sources?

(a) If you own or operate an affected source required by §63.11621(d) to use a device at the loadout end of a bulk loader that reduces fugitive emissions from a bulk loading process, you must perform monthly inspections of each device to ensure it is in proper working condition. You must record the results of these inspections in accordance with §63.11624(c)(4) of this subpart.

(b) If you own or operate an affected source required by §63.11621(e) or (f) to install and operate a cyclone to control emissions from pelleting operations, you must comply with the inspection and monitoring requirements in paragraphs (b)(1) and either (b)(2) or (b)(3) of this section, as applicable.

(1) You must perform quarterly inspections of the cyclone for corrosion, erosion, or any other damage that could result in air in-leakage, and record the results in accordance with §63.11624(c).

(2) If you own or operate a new source, you must monitor inlet flow rate, inlet velocity, pressure drop, or fan amperage at least once per day when the pelleting process is in operation. You must also record the inlet flow rate, inlet velocity, pressure drop, or fan amperage in accordance with §63.11624(c)(4).

(3) If you own or operate an existing source, you must perform a weekly visual inspection of the operating cyclone to ensure it is operating consistent with good air pollution control practices.

[75 FR 546, Jan. 5, 2010, as amended at 76 FR 80265, Dec. 23, 2011]

§ 63.11623 What are the testing requirements?

(a) If you are demonstrating that the cyclone required by §63.11621(e) is designed to reduce emissions of particulate matter by 95 percent or greater by the performance test option in §63.11621(e)(1)(iii), you must conduct a test in accordance with paragraph (b) of this section and calculate the percent reduction in accordance with paragraph (c) of this section.

(b) You must use Method 5 in Appendix A to part 60 to determine the particulate matter mass rate at the inlet and outlet of the cyclone. You must conduct at least three runs at the cyclone inlet and three runs at the cyclone outlet. Each run must have a sampling time of at least 60 minutes and a sample volume of at least 0.85 dscm (30 dscf).

(c) You must calculate the percent particulate matter reduction using Equation 1.

$$PM\ RED = \left(\frac{M_{INLET} - M_{OUTLET}}{M_{INLET}} \right) \times 100 \quad \text{Equation 1}$$

Where:

PM RED = particulate matter reduction, percent;

M_{INLET} = Mass of particulate matter at the inlet of the cyclone, dry basis, corrected to standard conditions, g/min;

M_{OUTLET} = Mass of particulate matter at the outlet of the cyclone, dry basis, corrected to standard conditions, g/min;

§ 63.11624 What are the notification, reporting, and recordkeeping requirements?

(a) *Notifications.* You must submit the notifications identified in paragraphs (a)(1) and (2) of this section.

(1) *Initial Notification.* If you are the owner of an affected source you must submit an Initial Notification no later than May 5, 2010, or 120 days after you become subject to this subpart, whichever is later. The Initial Notification must include the information specified in paragraphs (a)(1)(i) through (iv) of this section.

(i) The name, address, phone number and e-mail address of the owner and operator;

(ii) The address (physical location) of the affected source;

(iii) An identification of the relevant standard (*i.e.*, this subpart); and

(iv) A brief description of the operation.

(2) *Notification of Compliance Status.* If you are the owner of an existing affected source, you must submit a Notification of Compliance Status in accordance with §63.9(h) of the General Provisions on or before May 4, 2012. If you are the owner or operator of a new affected source, you must submit a Notification of Compliance Status within 120 days of initial startup, or by October 18, 2010, whichever is later. If you own or operate an affected source that becomes an affected source in accordance with §63.11619(b)(3) after the applicable compliance date in §63.11620 (a) or (b), you must submit a Notification of Compliance Status within 120 days of the date that you commence using materials containing manganese or chromium. This Notification of Compliance Status must include the information specified in paragraphs (a)(2)(i) through (iv) of this section.

(i) Your company's name and address;

(ii) A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart;

(iii) If you own or operate a new source required by §63.11621(e) to install and operate a cyclone to control emissions from pelleting operations, the inlet flow rate, inlet velocity, pressure drop, or fan amperage range than constitutes proper operation of the cyclone determined in accordance with §63.11621(e)(2).

(iv) If you own or operate an existing source required by §63.11621(f) to install and operate a cyclone to control emissions from pelleting operations, documentation of what constitutes proper operation of the cyclone determined in accordance with §63.11621(f).

(v) If you own or operate an affected source that is not subject to a requirement in §63.11621(e) or (f) to install and operate a cyclone to control emissions from pelleting operations because your initial average daily feed production level was 50 tpd or less, documentation of your initial daily pelleting production level determination.

(b) *Annual compliance certification report.* You must, by March 1 of each year, prepare an annual compliance certification report for the previous calendar year containing the information specified in paragraphs (b)(1) through (b)(6) of this section. You must submit the report if you had any instance described by paragraph (b)(3) or (b)(4) of this section.

(1) Your company's name and address.

(2) A statement by a responsible official with that official's name, title, phone number, e-mail address and signature, certifying the truth, accuracy, and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of this subpart.

(3) If the source is not in compliance, include a description of deviations from the applicable requirements, the time periods during which the deviations occurred, and the corrective actions taken.

(4) If you own or operate a new source that is subject to §63.11621(e), you must identify all instances when the daily inlet flow rate, inlet velocity, pressure drop, or fan amperage is outside the range that constitutes proper operation of the cyclone submitted as part of your Notification of Compliance Status. In these instances, include the time periods when this occurred and the corrective actions taken.

(5) If you own or operate an existing source that is subject to §63.11621(f), you must identify all instances when the cyclone was not operating properly as determined in accordance with §63.11621(f).

(6) If you own or operate an affected source that is not subject to a requirement in §63.11621(e) or (f) to install and operate a cyclone to control emissions from pelleting operations because your average daily feed production level was 50 tpd or less, notification if your average daily feed production level for the previous year exceeded 50 tpd.

(7) If you own or operate an affected source that was subject to a requirement in §63.11621(e) or (f) to install and operate a cyclone to control emissions from pelleting operations, notification if your average daily feed production level for the previous year was 50 tpd or less and that you are no longer complying with §63.11621(e) or (f).

(c) *Records.* You must maintain the records specified in paragraphs (c)(1) through (6) of this section in accordance with paragraphs (c)(7) through (9) of this section.

(1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart in accordance with paragraph (a) of this section, and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep a copy of each Annual Compliance Certification prepared in accordance with paragraph (b) of this section.

(3) For each device used to comply with the requirements in §63.11621(d), you must keep the records of all inspections including the information identified in paragraphs (c)(3)(i) through (iii) of this section.

(i) The date, place, and time of each inspection;

(ii) Person performing the inspection;

(iii) Results of the inspection, including the date, time, and duration of the corrective action period from the time the inspection indicated a problem to the time of the indication that the device was replaced or restored to operation.

(4) If you own or operate a new source that is subject to §63.11621(e), you must keep the records in paragraphs (c)(4)(i) through (v) of this section.

(i) If you demonstrate that the cyclone is designed to reduce emission of particulate matter by 95 percent or greater by manufacturer's specifications in accordance with §63.11621(e)(1)(i), you must keep the records specified in paragraphs (c)(4)(i)(A) through (C) of this section.

(A) Information from the manufacturer regarding the design efficiency of the cyclone,

(B) The inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone,

(C) The operation and maintenance procedures to ensure proper operation of the cyclone.

(ii) If you demonstrate that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater by certification by a professional engineer in accordance with paragraph §63.11621(e)(1)(ii), you must keep the records specified in paragraphs (c)(4)(ii)(A) through (C) of this section.

(A) Certification regarding the design efficiency of the cyclone, along with supporting information,

(B) The inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone,

(C) The standard maintenance and operating procedures that ensure proper operation of the cyclone.

(iii) If you demonstrate that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater by a performance in accordance with paragraph §63.11621(e)(1)(iii), you must keep the records specified in paragraphs (c)(4)(iii)(A) through (C) of this section.

(A) Results of the testing conducted in accordance with §63.11623,

(B) The inlet flow rate, inlet velocity, pressure drop, or fan amperage range that represents proper operation of the cyclone,

(C) The standard maintenance and operating procedures that ensure proper operation of the cyclone.

(iv) Records of all quarterly inspections including the information identified in paragraphs (c)(4)(iv)(A) through (C) of this section.

(A) The date, place, and time of each inspection;

(B) Person performing the inspection;

(C) Results of the inspection, including the date, time, and duration of the corrective action period from the time the inspection indicated a problem to the time of the indication that the cyclone was restored to proper operation.

(v) Records of the daily inlet flow rate, inlet velocity, pressure drop, or fan amperage measurements, along with the date, time, and duration of the correction action period from the time the monitoring indicated a problem to the time of the indication that the cyclone was restored to proper operation.

(5) If you own or operate an existing source that is subject to §63.11621(f), you must keep the records in paragraphs (c)(5)(i) and (ii) of this section.

(i) Records of all quarterly inspections including the information identified in paragraphs (c)(5)(i)(A) through (C) of this section.

(A) The date, place, and time of each inspection;

(B) Person performing the inspection;

(C) Results of the inspection, including the date, time, and duration of the corrective action period from the time the inspection indicated a problem to the time of the indication that the cyclone was restored to proper operation.

(ii) Records of weekly visual inspections of the operating cyclone, including a record of any corrective action taken as a result of the inspection.

(6) If you own or operate an affected source that is not subject to a requirement in §63.11621(e) or (f) to install and operate a cyclone to control emissions from pelleting operations because your average daily feed production level is 50 tpd or less, feed production records to enable the determination of the average daily feed production level.

(7) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1).

(8) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action.

(9) You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

(d) If you no longer use materials that contain manganese or chromium after January 5, 2010, you must submit a Notification in accordance with §63.11619(c) which includes the information specified in paragraphs (d)(1) and (2) of this section.

(1) Your company's name and address;

(2) A statement by a responsible official indicating that the facility no longer uses materials that contain chromium or manganese. This statement should also include an effective date for the termination of use of materials that contain chromium or manganese, and the responsible official's name, title, phone number, e-mail address and signature.

[75 FR 546, Jan. 5, 2010, as amended at 75 FR 41994, July 20, 2010; 76 FR 80266, Dec. 23, 2011]

Other Requirements and Information

§ 63.11625 What parts of the General Provisions apply to my facility?

Table 1 of this subpart shows which parts of the General Provisions in §§63.1 through 63.16 apply to you.

§ 63.11626 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by EPA or a delegated authority such as your State, local, or Tribal agency. If the EPA Administrator has delegated authority to your State, local, or Tribal agency, then that agency has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to your State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the EPA Administrator and are not transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are specified in paragraphs (c)(1) through (5) of this section.

(1) Approval of an alternative nonopacity emissions standard under §63.6(g).

(2) Approval of an alternative opacity emissions standard under §63.6(h)(9).

(3) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A “major change to test method” is defined in §63.90.

(4) Approval of a major change to monitoring under §63.8(f). A “major change to monitoring” is defined in §63.90.

(5) Approval of a major change to recordkeeping and reporting under §63.10(f). A “major change to recordkeeping/reporting” is defined in §63.90.

§ 63.11627 What definitions apply to this subpart?

Terms used in this subpart are defined in the CAA, in §63.2, and in this section.

Animal feed includes: Dehydrated alfalfa meal; alfalfa prepared as feed for animals; cubed alfalfa; prepared animal feed; chopped, crushed, or ground barley feed; prepared bird feed; blended animal feed; bone meal prepared as feed for animals and fowls; cattle feeds, supplements, concentrates, and premixes; prepared chicken feeds; cattle feed citrus pulp; complete livestock feed; custom milled animal feed; dairy cattle feeds supplements, concentrates, and premixes; earthworm food and bedding; animal feed concentrates; animal feed premixes; animal feed supplements; prepared animal feeds; specialty animal (e.g., guinea pig, mice, mink) feeds; fish food for feeding fish; custom ground grains for animal feed; cubed hay; kelp meal and pellets animal feed; laboratory animal feed; livestock feeds, supplements, concentrates and premixes; alfalfa meal; bone meal prepared as feed for animals and fowls; livestock micro and macro premixes; mineral feed supplements; animal mineral supplements; pet food; poultry feeds, supplements, and concentrates; rabbit food; shell crushed and ground animal feed; swine feed; swine feed supplements, concentrates, and premixes; and prepared turkey feeds. Feed products produced for dogs and cats are not considered animal feed for the purposes of this subpart.

Average daily feed production level means the average amount of animal feed products produced each day over an annual period. The initial determination of the average daily feed production level is based on the one-year period prior to the compliance date for existing sources, or the design rate for new sources. The subsequent average daily feed production levels are determined annually and are based on the amount of animal feed products produced in a calendar year divided by the number of days in which the production processes were in operation.

Cyclone means a mechanically aided collector that uses inertia to separate particulate matter from the gas stream as it spirals through the cyclone.

Material containing chromium means a material that contains chromium (Cr, atomic number 24) in amounts greater than or equal to 0.1 percent by weight.

Material containing manganese means a material that contains manganese (Mn, atomic number 25) in amounts greater than or equal to 1.0 percent by weight.

Pelleting operations means all operations that make pelleted animal feed, including but not limited to, steam conditioning, die-casting, drying, cooling, and crumbling, and granulation.

Prepared feeds manufacturing facility means a facility that is primarily engaged in manufacturing animal feed. A facility is primarily engaged in manufacturing animal feed if the production of animal feed comprises greater than 50 percent of the total production of the facility on an annual basis. Facilities primarily engaged in raising or feeding

animals are not prepared feed manufacturing facilities. Facilities engaged in the growing of agricultural crops that are used in the manufacturing of feed are not considered prepared feeds manufacturing facilities.

§§ 63.11628-63.11638 [Reserved]

Table 1 to Subpart DDDDDDD of Part 63—Applicability of General Provisions to Prepared Feeds Manufacturing Area Sources

As required in §63.11619, you must meet each requirement in the following table that applies to you.

Citation	Subject	Applies to Subpart DDDDDDD?
63.1	Applicability	Yes.
63.2	Definitions	Yes.
63.3	Units and Abbreviations	Yes.
63.4	Prohibited Activities and Circumvention	Yes.
63.5	Preconstruction Review and Notification Requirements	No.
63.6(a),(b)(1)–(b)(5), (b)(7), (c), (f)(2)–(3), (g), (i), and (j)	Compliance with Standards and Maintenance Requirements	Yes.
63.6(e)(1), (e)(3), (f)(1), and (h)	Startup, shutdown, and malfunction requirements and opacity/visible emission standards	No. Standards apply at all times, including during startup, shutdown, and malfunction events.
63.7	Performance Testing Requirements	Yes.
63.8	Monitoring Requirements	Yes.
63.9(a), (b), (c), (d), (h), (i), and (j)	Notification Requirements	Yes.
63.9(e), (f), (g)		No.
63.10(a),(b)(1), (b)(2)(i)–(iii), (b)(2)(vi)–(xiv), (c), (d)(1), (e), and (f)	Recordkeeping and Reporting Requirements	Yes.
63.10(b)(2)(iv)–(v), (b)(3), and (d)(2)–(5)	Recordkeeping and Reporting Requirements	No.
63.11	Control Device Requirements	No.
63.12	State Authorities and Delegations	Yes.
63.13	Addresses	Yes.
63.14	Incorporations by Reference	Yes.
63.15	Availability of Information and Confidentiality	Yes.
63.16	Performance Track Provisions	Yes.
63.1(a)(5), (a)(7)–(9), (b)(2), (c)(3)–(4), (d), 63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv), 63.8(a)(3), 63.9(b)(3), (h)(4), 63.10(c)(2)–(4), (c)(9)	Reserved	No.

Resources

- Prepared Feeds Manufacturing Facilities: National Emission Standards for Hazardous Air Pollutants: Final Area Source Standards: Fact Sheet: http://www.epa.gov/ttn/oarpg/t3/fact_sheets/PrepFeeds_fs091216.pdf (12-16-09)
- Prepared Feeds Manufacturing: 40 CFR Part 63 Subpart DDDDDDD Brochure: <http://www.epa.gov/ttn/atw/area/feedmfgb.pdf> (03/2010)
- National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Prepared Feed Manufacturing: Commonly Asked Questions and Answers: http://www.epa.gov/ttn/atw/area/feedmfg_q_a.pdf (01/2011)

Reference

The US EPA Electronic Code of Federal Regulations - 40 CFR 63, Subpart DDDDDDD—National Emission Standards for Hazardous Air Pollutants for Area Sources: Prepared Feeds Manufacturing web address: <http://ecfr.gpoaccess.gov/cqi/t/text/text-idx?c=ecfr&sid=84b67617b35fd08df7267a15a92e05a9&rqn=div6&view=text&node=40.15.0.1.1.1.43&idno=40>

**New Source Construction and
Federally Enforceable State
Operating Permit
(FESOP)
OFFICE OF AIR QUALITY**

**JFS Milling, Inc.
5167 North State Road 67
Bruceville, IN 47516**

Attachment B

Title 40: Protection of Environment

[PART 60—NEW SOURCE PERFORMANCE STANDARDS](#)

**Subpart Dc - Standards of Performance for
Small Industrial-Commercial-Institutional
Steam Generating Units**

F083-32071-00058

Title 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

Source: 72 FR 32759, June 13, 2007, unless otherwise noted.

§ 60.40c Applicability and delegation of authority.

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

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

(c) Steam generating units that meet the applicability requirements in paragraph (a) of this section are not subject to the sulfur dioxide (SO₂) or particulate matter (PM) emission limits, performance testing requirements, or monitoring requirements under this subpart (§§ 60.42c, 60.43c, 60.44c, 60.45c, 60.46c, or 60.47c) during periods of combustion research, as defined in § 60.41c.

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

(e) Affected facilities (*i.e.* heat recovery steam generators and fuel heaters) that are associated with stationary combustion turbines and meet the applicability requirements of subpart KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators, fuel heaters, and other affected facilities that are capable of combusting more than or equal to 2.9 MW (10 MMBtu/h) heat input of fossil fuel but less than or equal to 29 MW (100 MMBtu/h) heat input of fossil fuel. If the heat recovery steam generator, fuel heater, or other affected facility is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The stationary combustion turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(f) Any affected facility that meets the applicability requirements of and is subject to subpart AAAA or subpart CCCC of this part is not subject to this subpart.

(g) Any facility that meets the applicability requirements and is subject to an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not subject to this subpart.

(h) Affected facilities that also meet the applicability requirements under subpart J or subpart Ja of this part are subject to the PM and NO_x standards under this subpart and the SO₂ standards under subpart J or subpart Ja of this part, as applicable.

(i) Temporary boilers are not subject to this subpart.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9461, Feb. 16, 2012]

§ 60.41c Definitions.

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

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

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see § 60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal not meeting the definition of natural gas, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

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

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

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (*i.e.* , the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

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

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17), diesel fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D975 (incorporated by reference, see § 60.17), kerosine, as defined by the American Society of Testing and Materials in ASTM D3699 (incorporated by reference, see § 60.17), biodiesel as defined by the American Society of Testing and Materials in ASTM D6751 (incorporated by reference, see § 60.17), or biodiesel blends as defined by the American Society of Testing and Materials in ASTM D7467 (incorporated by reference, see § 60.17).

Dry flue gas desulfurization technology means a SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline reagent and water, whether introduced separately or as a premixed slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

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

Emerging technology means any SO₂ control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under § 60.48c(a)(4).

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

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

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

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

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

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

Natural gas means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see § 60.17); or

(3) A mixture of hydrocarbons that maintains a gaseous state at ISO conditions. Additionally, natural gas must either be composed of at least 70 percent methane by volume or have a gross calorific value between 34 and 43 megajoules (MJ) per dry standard cubic meter (910 and 1,150 Btu per dry standard cubic foot).

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

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

Potential sulfur dioxide emission rate means the theoretical SO₂ emissions (nanograms per joule (ng/J) or lb/MMBtu heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

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

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396 (incorporated by reference, see § 60.17).

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

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

Temporary boiler means a steam generating unit that combusts natural gas or distillate oil with a potential SO₂ emissions rate no greater than 26 ng/J (0.060 lb/MMBtu), and the unit is designed to, and is capable of, being carried or moved from one location to another by means of, for example, wheels, skids, carrying handles, dollies, trailers, or platforms. A steam generating unit is not a temporary boiler if any one of the following conditions exists:

- (1) The equipment is attached to a foundation.
- (2) The steam generating unit or a replacement remains at a location for more than 180 consecutive days. Any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period.
- (3) The equipment is located at a seasonal facility and operates during the full annual operating period of the seasonal facility, remains at the facility for at least 2 years, and operates at that facility for at least 3 months each year.
- (4) The equipment is moved from one location to another in an attempt to circumvent the residence time requirements of this definition.

Wet flue gas desulfurization technology means an SO₂ control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of PM or SO₂.

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

§ 60.42c Standard for sulfur dioxide (SO₂).

(a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that combusts only coal shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility shall neither: cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO₂ emission rate (90 percent reduction), nor cause to be discharged into the atmosphere from the affected facility any gases that contain SO₂ in excess of the emission limit is determined pursuant to paragraph (e)(2) of this section.

(b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8, whichever date comes first, the owner or operator of an affected facility that:

(1) Combusts only coal refuse alone in a fluidized bed combustion steam generating unit shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 20 percent (0.20) of the potential SO₂ emission rate (80 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 520 ng/J (1.2 lb/MMBtu) heat input. If coal is fired with coal refuse, the affected facility subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 87 ng/J (0.20 lb/MMBtu) heat input SO₂ emissions limit or the 90 percent SO₂ reduction requirement specified in paragraph (a) of this section and the emission limit is determined pursuant to paragraph (e)(2) of this section.

(2) Combusts only coal and that uses an emerging technology for the control of SO₂ emissions shall neither:

(i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 50 percent (0.50) of the potential SO₂ emission rate (50 percent reduction); nor

(ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 260 ng/J (0.60 lb/MMBtu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO₂ reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under paragraphs (c)(1), (2), (3), or (4).

(1) Affected facilities that have a heat input capacity of 22 MW (75 MMBtu/h) or less;

(2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.

(3) Affected facilities located in a noncontinental area; or

(4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.

(d) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of 215 ng/J (0.50 lb/MMBtu) heat input from oil; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

(e) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO₂ in excess of the following:

(1) The percent of potential SO₂ emission rate or numerical SO₂ emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that

(i) Combusts coal in combination with any other fuel;

(ii) Has a heat input capacity greater than 22 MW (75 MMBtu/h); and

(iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and

(2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

$$E_s = \frac{(K_a H_a + K_b H_b + K_c H_c)}{(H_a + H_b + H_c)}$$

Where:

E_s = SO₂ emission limit, expressed in ng/J or lb/MMBtu heat input;

K_a = 520 ng/J (1.2 lb/MMBtu);

K_b = 260 ng/J (0.60 lb/MMBtu);

K_c = 215 ng/J (0.50 lb/MMBtu);

H_a = Heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [MMBtu];

H_b = Heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (MMBtu); and

H_c = Heat input from the combustion of oil, in J (MMBtu).

(f) Reduction in the potential SO₂ emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:

(1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO₂ emission rate; and

(2) Emissions from the pretreated fuel (without either combustion or post-combustion SO₂ control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.

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

(h) For affected facilities listed under paragraphs (h)(1), (2), (3), or (4) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under § 60.48c(f), as applicable.

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

(2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/hr).

(3) Coal-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(4) Other fuels-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 MMBtu/h).

(i) The SO₂ emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(j) For affected facilities located in noncontinental areas and affected facilities complying with the percent reduction standard, only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5090, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

§ 60.43c Standard for particulate matter (PM).

(a) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:

(1) 22 ng/J (0.051 lb/MMBtu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.

(b) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:

(1) 43 ng/J (0.10 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or

(2) 130 ng/J (0.30 lb/MMBtu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.

(c) On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. Owners and operators of an affected facility that elect to install, calibrate, maintain, and operate a continuous emissions monitoring system (CEMS) for measuring PM emissions according to the requirements of this subpart and are subject to a federally enforceable PM limit of 0.030 lb/MMBtu or less are exempt from the opacity standard specified in this paragraph (c).

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

(e)(1) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 13 ng/J (0.030 lb/MMBtu) heat input, except as provided in paragraphs (e)(2), (e)(3), and (e)(4) of this section.

(2) As an alternative to meeting the requirements of paragraph (e)(1) of this section, the owner or operator of an affected facility for which modification commenced after February 28, 2005, may elect to meet the requirements of this paragraph. On and after the date on which the initial performance test is completed or required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005 shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of both:

(i) 22 ng/J (0.051 lb/MMBtu) heat input derived from the combustion of coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels; and

(ii) 0.2 percent of the combustion concentration (99.8 percent reduction) when combusting coal, oil, wood, a mixture of these fuels, or a mixture of these fuels with any other fuels.

(3) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8, whichever date comes first, no owner or operator of an affected facility that commences modification after February 28, 2005, and that combusts over 30 percent wood (by heat input) on an annual basis and has a heat input capacity of 8.7 MW (30 MMBtu/h) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 43 ng/J (0.10 lb/MMBtu) heat input.

(4) An owner or operator of an affected facility that commences construction, reconstruction, or modification after February 28, 2005, and that combusts only oil that contains no more than 0.50 weight percent sulfur or a mixture of 0.50 weight percent sulfur oil with other fuels not subject to a PM standard under § 60.43c and not using a post-combustion technology (except a wet scrubber) to reduce PM or SO₂ emissions is not subject to the PM limit in this section.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 77 FR 9462, Feb. 16, 2012]

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

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

(b) The initial performance test required under § 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.

(c) After the initial performance test required under paragraph (b) of this section and § 60.8, compliance with the percent reduction requirements and SO₂ emission limits under § 60.42c is based on the average percent reduction and the average SO₂ emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO₂ emission rate are calculated to show compliance with the standard.

(d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 of appendix A of this part are used to determine the hourly SO₂ emission rate (E_{ho}) and the 30-day average SO₂ emission rate (E_{ao}). The hourly averages used to compute the 30-day averages are obtained from the CEMS. Method 19 of appendix A of this part shall be used to calculate E_{ao} when using daily fuel sampling or Method 6B of appendix A of this part.

(e) If coal, oil, or coal and oil are combusted with other fuels:

(1) An adjusted E_{ho} (E_{ho o}) is used in Equation 19-19 of Method 19 of appendix A of this part to compute the adjusted E_{ao} (E_{ao o}). The E_{ho o} is computed using the following formula:

$$E_{ho o} = \frac{E_{ho} - E_w(1 - X_1)}{X_1}$$

Where:

E_{ho} = Adjusted E_{ho} , ng/J (lb/MMBtu);

E_{ho} = Hourly SO_2 emission rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 9 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w = 0$.

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

(2) The owner or operator of an affected facility that qualifies under the provisions of § 60.42c(c) or (d) (where percent reduction is not required) does not have to measure the parameters E_w or X_k if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(f) Affected facilities subject to the percent reduction requirements under § 60.42c(a) or (b) shall determine compliance with the SO_2 emission limits under § 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO_2 emission rate is computed using the following formula:

$$\%P_s = 100 \left(1 - \frac{\%R_z}{100} \right) \left(1 - \frac{\%R_f}{100} \right)$$

Where:

$\%P_s$ = Potential SO_2 emission rate, in percent;

$\%R_g$ = SO_2 removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

$\%R_i$ = SO_2 removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

(2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:

(i) To compute the $\%P_s$, an adjusted $\%R_g$ ($\%R_{g\ o}$) is computed from E_{ao} from paragraph (e)(1) of this section and an adjusted average SO_2 inlet rate (E_{ai}) using the following formula:

$$\%R_{g\ o} = 100 \left(1 - \frac{E_w}{E_{ai}} \right)$$

Where:

$\%R_{g\ o}$ = Adjusted $\%R_g$, in percent;

E_{ao} = Adjusted E_{ao} , ng/J (lb/MMBtu); and

E_{ai} = Adjusted average SO_2 inlet rate, ng/J (lb/MMBtu).

(ii) To compute $E_{ai o}$, an adjusted hourly SO_2 inlet rate ($E_{hi o}$) is used. The $E_{hi o}$ is computed using the following formula:

$$E_{ai o} = \frac{E_{hi} - E_w(1 - X_k)}{X_k}$$

Where:

$E_{hi o}$ = Adjusted E_{hi} , ng/J (lb/MMBtu);

E_{hi} = Hourly SO_2 inlet rate, ng/J (lb/MMBtu);

E_w = SO_2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E_w for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure E_w if the owner or operator elects to assume $E_w = 0$; and

X_k = Fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19 of appendix A of this part.

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

(h) For affected facilities subject to § 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO_2 standards based on fuel supplier certification, the performance test shall consist of the certification from the fuel supplier, as described in § 60.48c(f), as applicable.

(i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO_2 standards under § 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(j) The owner or operator of an affected facility shall use all valid SO_2 emissions data in calculating $\%P_s$ and E_{no} under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under § 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating $\%P_s$ or E_{no} pursuant to paragraphs (d), (e), or (f) of this section, as applicable.

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

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

(a) The owner or operator of an affected facility subject to the PM and/or opacity standards under § 60.43c shall conduct an initial performance test as required under § 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods, except as specified in paragraph (c) of this section.

(1) Method 1 of appendix A of this part shall be used to select the sampling site and the number of traverse sampling points.

(2) Method 3A or 3B of appendix A-2 of this part shall be used for gas analysis when applying Method 5 or 5B of appendix A-3 of this part or 17 of appendix A-6 of this part.

(3) Method 5, 5B, or 17 of appendix A of this part shall be used to measure the concentration of PM as follows:

(i) Method 5 of appendix A of this part may be used only at affected facilities without wet scrubber systems.

(ii) Method 17 of appendix A of this part may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (320 °F). The procedures of Sections 8.1 and 11.1 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if Method 17 of appendix A of this part is used in conjunction with a wet scrubber system. Method 17 of appendix A of this part shall not be used in conjunction with a wet scrubber system if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part may be used in conjunction with a wet scrubber system.

(4) The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry standard cubic meters (dscm) [60 dry standard cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(5) For Method 5 or 5B of appendix A of this part, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 ±14 °C (320±25 °F).

(6) For determination of PM emissions, an oxygen (O₂) or carbon dioxide (CO₂) measurement shall be obtained simultaneously with each run of Method 5, 5B, or 17 of appendix A of this part by traversing the duct at the same sampling location.

(7) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rates expressed in ng/J (lb/MMBtu) heat input shall be determined using:

(i) The O₂ or CO₂ measurements and PM measurements obtained under this section, (ii) The dry basis F factor, and

(iii) The dry basis emission rate calculation procedure contained in Method 19 of appendix A of this part.

(8) Method 9 of appendix A-4 of this part shall be used for determining the opacity of stack emissions.

(b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under § 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.

(c) In place of PM testing with Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part, an owner or operator may elect to install, calibrate, maintain, and operate a CEMS for monitoring PM emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility who elects to continuously monitor PM emissions instead of conducting performance testing using Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall install, calibrate, maintain, and operate a CEMS and shall comply with the requirements specified in paragraphs (c)(1) through (c)(14) of this section.

(1) Notify the Administrator 1 month before starting use of the system.

(2) Notify the Administrator 1 month before stopping use of the system.

(3) The monitor shall be installed, evaluated, and operated in accordance with § 60.13 of subpart A of this part.

(4) The initial performance evaluation shall be completed no later than 180 days after the date of initial startup of the affected facility, as specified under § 60.8 of subpart A of this part or within 180 days of notification to the Administrator of use of CEMS if the owner or operator was previously determining compliance by Method 5, 5B, or 17 of appendix A of this part performance tests, whichever is later.

(5) The owner or operator of an affected facility shall conduct an initial performance test for PM emissions as required under § 60.8 of subpart A of this part. Compliance with the PM emission limit shall be determined by using the CEMS specified in paragraph (d) of this section to measure PM and calculating a 24-hour block arithmetic average emission concentration using EPA Reference Method 19 of appendix A of this part, section 4.1.

(6) Compliance with the PM emission limit shall be determined based on the 24-hour daily (block) average of the hourly arithmetic average emission concentrations using CEMS outlet data.

(7) At a minimum, valid CEMS hourly averages shall be obtained as specified in paragraph (c)(7)(i) of this section for 75 percent of the total operating hours per 30-day rolling average.

(i) At least two data points per hour shall be used to calculate each 1-hour arithmetic average.

(ii) [Reserved]

(8) The 1-hour arithmetic averages required under paragraph (c)(7) of this section shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the boiler operating day daily arithmetic average emission concentrations. The 1-hour arithmetic averages shall be calculated using the data points required under § 60.13(e)(2) of subpart A of this part.

(9) All valid CEMS data shall be used in calculating average emission concentrations even if the minimum CEMS data requirements of paragraph (c)(7) of this section are not met.

(10) The CEMS shall be operated according to Performance Specification 11 in appendix B of this part.

(11) During the correlation testing runs of the CEMS required by Performance Specification 11 in appendix B of this part, PM and O₂ (or CO₂) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and performance tests conducted using the following test methods.

(i) For PM, Method 5 or 5B of appendix A-3 of this part or Method 17 of appendix A-6 of this part shall be used; and

(ii) For O₂ (or CO₂), Method 3A or 3B of appendix A-2 of this part, as applicable shall be used.

(12) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with procedure 2 in appendix F of this part. Relative Response Audit's must be performed annually and Response Correlation Audits must be performed every 3 years.

(13) When PM emissions data are not obtained because of CEMS breakdowns, repairs, calibration checks, and zero and span adjustments, emissions data shall be obtained by using other monitoring systems as approved by the Administrator or EPA Reference Method 19 of appendix A of this part to provide, as necessary, valid emissions data for a minimum of 75 percent of total operating hours on a 30-day rolling average.

(14) As of January 1, 2012, and within 90 days after the date of completing each performance test, as defined in § 60.8, conducted to demonstrate compliance with this subpart, you must submit relative accuracy test audit (*i.e.*, reference method) data and performance test (*i.e.*, compliance test) data, except opacity data, electronically to EPA's Central Data Exchange (CDX) by using the Electronic Reporting Tool (ERT) (see http://www.epa.gov/ttn/chief/ert/ert_tool.html/) or other compatible electronic spreadsheet. Only data collected using test methods compatible with ERT are subject to this requirement to be submitted electronically into EPA's WebFIRE database.

(d) The owner or operator of an affected facility seeking to demonstrate compliance under § 60.43c(e)(4) shall follow the applicable procedures under § 60.48c(f). For residual oil-fired affected facilities, fuel supplier certifications are only allowed for facilities with heat input capacities between 2.9 and 8.7 MW (10 to 30 MMBtu/h).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 60.46c Emission monitoring for sulfur dioxide.

(a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO₂ emission limits under § 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO₂ concentrations and either O₂ or CO₂ concentrations at the outlet of the SO₂ control device (or the outlet of the steam generating unit if no SO₂ control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under § 60.42c shall measure SO₂ concentrations and either O₂ or CO₂ concentrations at both the inlet and outlet of the SO₂ control device.

(b) The 1-hour average SO₂ emission rates measured by a CEMS shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under § 60.42c. Each 1-hour average SO₂ emission rate must be based on at least 30 minutes of operation, and shall be calculated using the data points required under § 60.13(h)(2). Hourly SO₂ emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(c) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 of appendix B of this part.

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 of appendix F of this part.

(3) For affected facilities subject to the percent reduction requirements under § 60.42c, the span value of the SO₂ CEMS at the inlet to the SO₂ control device shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted, and the span value of the SO₂ CEMS at the outlet from the SO₂ control device shall be 50 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(4) For affected facilities that are not subject to the percent reduction requirements of § 60.42c, the span value of the SO₂ CEMS at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) shall be 125 percent of the maximum estimated hourly potential SO₂ emission rate of the fuel combusted.

(d) As an alternative to operating a CEMS at the inlet to the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEMS at the outlet from the SO₂ control device (or outlet of the steam generating unit if no SO₂ control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO₂ emission rate by using Method 6B of appendix A of this part. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B of appendix A of this part shall be conducted pursuant to paragraph (d)(3) of this section.

(1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according to the Method 19 of appendix A of this part. Method 19 of appendix A of this part provides procedures for converting these measurements into the format to be used in calculating the average SO₂ input rate.

(2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fuel tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

(3) Method 6B of appendix A of this part may be used in lieu of CEMS to measure SO₂ at the inlet or outlet of the SO₂ control system. An initial stratification test is required to verify the adequacy of the Method 6B of appendix A of this part sampling location. The stratification test shall consist of three paired runs of a suitable SO₂ and CO₂ measurement train operated at the candidate location and a second similar train operated according to the procedures in § 3.2 and the applicable procedures in section 7 of Performance Specification 2 of appendix B of this part. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 of appendix A of this part or Methods 6C and 3A of appendix A of this part are suitable measurement techniques. If Method 6B of appendix A of this part is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B of appendix A of this part 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).

(e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject to § 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO₂ standards based on fuel supplier certification, as described under § 60.48c(f), as applicable.

(f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

§ 60.47c Emission monitoring for particulate matter.

(a) Except as provided in paragraphs (c), (d), (e), and (f) of this section, the owner or operator of an affected facility combusting coal, oil, or wood that is subject to the opacity standards under § 60.43c shall install, calibrate, maintain, and operate a continuous opacity monitoring system (COMS) for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system. The owner or operator of an affected facility subject to an opacity standard in § 60.43c(c) that is not required to use a COMS due to paragraphs (c), (d), (e), or (f) of this section that elects not to use a COMS shall conduct a performance test using Method 9 of appendix A-4 of this part and the procedures in § 60.11 to demonstrate compliance with the applicable limit in § 60.43c by April 29, 2011, within 45 days of stopping use of an existing COMS, or within 180 days after initial startup of the facility, whichever is later, and shall comply with either paragraphs (a)(1), (a)(2), or (a)(3) of this section. The observation period for Method 9 of appendix A-4 of this part performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

(1) Except as provided in paragraph (a)(2) and (a)(3) of this section, the owner or operator shall conduct subsequent Method 9 of appendix A-4 of this part performance tests using the procedures in paragraph (a) of this section according to the applicable schedule in paragraphs (a)(1)(i) through (a)(1)(iv) of this section, as determined by the most recent Method 9 of appendix A-4 of this part performance test results.

(i) If no visible emissions are observed, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(ii) If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later;

(iii) If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted or within 45 days of the next day that fuel with an opacity standard is combusted, whichever is later; or

(iv) If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 of appendix A-4 of this part performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

(2) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 of this part performance tests, elect to perform subsequent monitoring using Method 22 of appendix A-7 of this part according to the procedures specified in paragraphs (a)(2)(i) and (ii) of this section.

(i) The owner or operator shall conduct 10 minute observations (during normal operation) each operating day the affected facility fires fuel for which an opacity standard is applicable using Method 22 of appendix A-7 of this part and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (*i.e.* , 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (*i.e.*, 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (*i.e.*, 90 seconds) or conduct a new Method 9 of appendix A-4 of this part performance test using the procedures in paragraph (a) of this section within 45 calendar days according to the requirements in § 60.45c(a)(8).

(ii) If no visible emissions are observed for 10 operating days during which an opacity standard is applicable, observations can be reduced to once every 7 operating days during which an opacity standard is applicable. If any visible emissions are observed, daily observations shall be resumed.

(3) If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 of appendix A-4 of this part performance test, the owner or operator may, as an alternative to performing subsequent Method 9 of appendix A-4 performance tests, elect to perform subsequent monitoring using a digital opacity compliance system according to a site-specific monitoring plan approved by the Administrator. The observations shall be similar, but not necessarily identical, to the requirements in paragraph (a)(2) of this section. For reference purposes in preparing the monitoring plan, see OAQPS "Determination of Visible Emission Opacity from Stationary Sources Using Computer-Based Photographic Analysis Systems." This document is available from the U.S. Environmental Protection Agency (U.S. EPA); Office of Air Quality and Planning Standards; Sector Policies and Programs Division; Measurement Policy Group (D243-02), Research Triangle Park, NC 27711. This document is also available on the Technology Transfer Network (TTN) under Emission Measurement Center Preliminary Methods.

(b) All COMS shall be operated in accordance with the applicable procedures under Performance Specification 1 of appendix B of this part. The span value of the opacity COMS shall be between 60 and 80 percent.

(c) Owners and operators of an affected facilities that burn only distillate oil that contains no more than 0.5 weight percent sulfur and/or liquid or gaseous fuels with potential sulfur dioxide emission rates of 26 ng/J (0.060 lb/MMBtu) heat input or less and that do not use a post-combustion technology to reduce SO₂ or PM emissions and that are subject to an opacity standard in § 60.43c(c) are not required to operate a COMS if they follow the applicable procedures in § 60.48c(f).

(d) Owners or operators complying with the PM emission limit by using a PM CEMS must calibrate, maintain, operate, and record the output of the system for PM emissions discharged to the atmosphere as specified in § 60.45c(c). The CEMS specified in paragraph § 60.45c(c) shall be operated and data recorded during all periods of operation of the affected facility except for CEMS breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(e) Owners and operators of an affected facility that is subject to an opacity standard in § 60.43c(c) and that does not use post-combustion technology (except a wet scrubber) for reducing PM, SO₂ , or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to

0.5 weight percent sulfur, and is operated such that emissions of CO discharged to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a boiler operating day average basis is not required to operate a COMS. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (e)(1) through (4) of this section; or

(1) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (e)(1)(i) through (iv) of this section.

(i) The CO CEMS must be installed, certified, maintained, and operated according to the provisions in § 60.58b(i)(3) of subpart Eb of this part.

(ii) Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 3 percent oxygen (dry basis).

(iii) At a minimum, valid 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-day rolling average basis. The 1-hour averages are calculated using the data points required in § 60.13(h)(2).

(iv) Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of this part.

(2) You must calculate the 1-hour average CO emissions levels for each steam generating unit operating day by multiplying the average hourly CO output concentration measured by the CO CEMS times the corresponding average hourly flue gas flow rate and divided by the corresponding average hourly heat input to the affected source. The 24-hour average CO emission level is determined by calculating the arithmetic average of the hourly CO emission levels computed for each steam generating unit operating day.

(3) You must evaluate the preceding 24-hour average CO emission level each steam generating unit operating day excluding periods of affected source startup, shutdown, or malfunction. If the 24-hour average CO emission level is greater than 0.15 lb/MMBtu, you must initiate investigation of the relevant equipment and control systems within 24 hours of the first discovery of the high emission incident and, take the appropriate corrective action as soon as practicable to adjust control settings or repair equipment to reduce the 24-hour average CO emission level to 0.15 lb/MMBtu or less.

(4) You must record the CO measurements and calculations performed according to paragraph (e) of this section and any corrective actions taken. The record of corrective action taken must include the date and time during which the 24-hour average CO emission level was greater than 0.15 lb/MMBtu, and the date, time, and description of the corrective action.

(f) An owner or operator of an affected facility that is subject to an opacity standard in § 60.43c(c) is not required to operate a COMS provided that the affected facility meets the conditions in either paragraphs (f)(1), (2), or (3) of this section.

(1) The affected facility uses a fabric filter (baghouse) as the primary PM control device and, the owner or operator operates a bag leak detection system to monitor the performance of the fabric filter according to the requirements in section § 60.48Da of this part.

(2) The affected facility uses an ESP as the primary PM control device, and the owner or operator uses an ESP predictive model to monitor the performance of the ESP developed in accordance and operated according to the requirements in section § 60.48Da of this part.

(3) The affected facility burns only gaseous fuels and/or fuel oils that contain no greater than 0.5 weight percent sulfur, and the owner or operator operates the unit according to a written site-specific monitoring plan approved by the permitting authority. This monitoring plan must include procedures and criteria for establishing and monitoring specific parameters for the affected facility indicative of compliance with the opacity standard. For testing performed as part of this site-specific monitoring plan, the permitting authority may require as an alternative to the notification and reporting requirements specified in §§ 60.8 and 60.11 that the owner or operator submit any deviations with the excess emissions report required under § 60.48c(c).

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009; 76 FR 3523, Jan. 20, 2011; 77 FR 9463, Feb. 16, 2012]

§ 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 and actual startup, as provided by § 60.7 of this part. This notification shall include:

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

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

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

(4) Notification if an emerging technology will be used for controlling SO₂ emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of § 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO₂ emission limits of § 60.42c, or the PM or opacity limits of § 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS and/or COMS using the applicable performance specifications in appendix B of this part.

(c) In addition to the applicable requirements in § 60.7, the owner or operator of an affected facility subject to the opacity limits in § 60.43c(c) shall submit excess emission reports for any excess emissions from the affected facility that occur during the reporting period and maintain records according to the requirements specified in paragraphs (c)(1) through (3) of this section, as applicable to the visible emissions monitoring method used.

(1) For each performance test conducted using Method 9 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(1)(i) through (iii) of this section.

(i) Dates and time intervals of all opacity observation periods;

(ii) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(iii) Copies of all visible emission observer opacity field data sheets;

(2) For each performance test conducted using Method 22 of appendix A-4 of this part, the owner or operator shall keep the records including the information specified in paragraphs (c)(2)(i) through (iv) of this section.

(i) Dates and time intervals of all visible emissions observation periods;

(ii) Name and affiliation for each visible emission observer participating in the performance test;

(iii) Copies of all visible emission observer opacity field data sheets; and

(iv) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the owner or operator to demonstrate compliance with the applicable monitoring requirements.

(3) For each digital opacity compliance system, the owner or operator shall maintain records and submit reports according to the requirements specified in the site-specific monitoring plan approved by the Administrator

(d) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall submit reports to the Administrator.

(e) The owner or operator of each affected facility subject to the SO₂ emission limits, fuel oil sulfur limits, or percent reduction requirements under § 60.42c shall keep records and submit reports as required under paragraph (d) of this section, including the following information, as applicable.

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average SO₂ emission rate (ng/J or lb/MMBtu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.

(3) Each 30-day average percent of potential SO₂ emission rate calculated during the reporting period, ending with the last 30-day period; reasons for any noncompliance with the emission standards; and a description of the corrective actions taken.

(4) Identification of any steam generating unit operating days for which SO₂ or diluent (O₂ or CO₂) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.

(5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.

(6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.

(7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.

(8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.

(9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 of appendix B of this part.

(10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), (3), or (4) of this section, as applicable. In addition to records of fuel supplier certifications, the report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the reporting period.

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

(1) For distillate oil:

(i) The name of the oil supplier;

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

(iii) The sulfur content or maximum sulfur content of the oil.

(2) For residual oil:

(i) The name of the oil supplier;

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

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

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

(3) For coal:

(i) The name of the coal supplier;

(ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);

(iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and

(iv) The methods used to determine the properties of the coal.

(4) For other fuels:

(i) The name of the supplier of the fuel;

(ii) The potential sulfur emissions rate or maximum potential sulfur emissions rate of the fuel in ng/J heat input; and

(iii) The method used to determine the potential sulfur emissions rate of the fuel.

(g)(1) Except as provided under paragraphs (g)(2) and (g)(3) of this section, the owner or operator of each affected facility shall record and maintain records of the amount of each fuel combusted during each operating day.

(2) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility that combusts only natural gas, wood, fuels using fuel certification in § 60.48c(f) to demonstrate compliance with the SO₂ standard, fuels not subject to an emissions standard (excluding opacity), or a mixture of these fuels may elect to record and maintain records of the amount of each fuel combusted during each calendar month.

(3) As an alternative to meeting the requirements of paragraph (g)(1) of this section, the owner or operator of an affected facility or multiple affected facilities located on a contiguous property unit where the only fuels combusted in any steam generating unit (including steam generating units not subject to this subpart) at that property are natural gas, wood, distillate oil meeting the most current requirements in § 60.42C to use fuel certification to demonstrate compliance with the SO₂ standard, and/or fuels, excluding coal and residual oil, not subject to an emissions standard (excluding opacity) may elect to record and maintain records of the total amount of each steam generating unit fuel delivered to that property during each calendar month.

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

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

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

[72 FR 32759, June 13, 2007, as amended at 74 FR 5091, Jan. 28, 2009]

Reference:

The US EPA Electronic Code of Federal Regulations - 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units weblink:

<http://www.ecfr.gov/cgi-bin/text-idx?c=ecfr&SID=33de0df5a9af803df2fa6dfd8985fc2a&rqn=div6&view=text&node=40:7.0.1.1.1.12&idno=40>

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

Addendum to the Technical Support Document (ATSD) for a
New Source Construction and
Federally Enforceable State Operating Permit (FESOP)

Source Background and Description

Source Name:	JFS Milling, Inc.
Source Location:	5167 North State Road 67, Bruceville, IN 47516
County:	Knox
SIC Code:	2048 (Prepared Feed and Feed Ingredients for Animals and Fowls, Except Dogs and Cats)
Operation Permit No.:	F083-32071-00058
Permit Reviewer:	Hannah L. Desrosiers

On November 7, 2012, the Office of Air Quality (OAQ) had a notice published in the Sun Commercial, Vincennes, Indiana, stating that JFS Milling, Inc. had applied for a Federally Enforceable State Operating Permit (FESOP) to construct and operate a new animal feed mill. The notice also stated that the OAQ proposed to issue a New Source Construction and Federally Enforceable State Operating Permit (FESOP) 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 and Responses

No comments were received during the public notice period.

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below, with deleted language as ~~strikeouts~~ and new language **bolded**.

- (a) Permit condition D.1.6: Particulate Control, has been updated for clarity and consistency to include the baghouse IDs for Hammermills #1 and #2, as follows:

D.1.6 Particulate Control (PM/PM10/PM2.5)

- (a) In order to comply with Conditions D.1.1 and D.1.2, the baghouses **(F-4 and F-5)** serving Hammermills #1 & #2 (ES-4, ES-5) shall be in operation and control emissions from each of the Hammermills at all times when the corresponding Hammermill is in operation.

- (b) Permit conditions D.1.7(a) and D.1.7(b) Testing Requirements for the baghouses serving Hammermills #1 and #2, and D.1.9: Parametric Monitoring, have been revised to correct the baghouse IDs for Hammermills #1 and #2.

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

- (a) In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM, PM10, and PM2.5 testing of the Baghouse **F-43**, controlling particulate emissions from Hammermill #1, not later than 180 days after startup, utilizing methods approved by the Commissioner.

These 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.

- (b) In order to demonstrate compliance with Conditions D.1.1 and D.1.2, the Permittee shall perform PM, PM10, and PM2.5 testing of the Baghouse F-54, controlling particulate emissions from Hammermill #2, not later than 180 days after startup, utilizing methods approved by the Commissioner. These 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 the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM10 and PM2.5 includes filterable and condensable particulate matter.

D.1.9 Parametric Monitoring [Baghouse]

The Permittee shall record the pressure drop across each of the two (2) baghouses (~~F-3 and F-4~~ and F-5), used in conjunction with Hammermill #1 and Hammermill #2 (ES-4 & ES-5), at least once per day when the corresponding emission unit is in operation. When, for any one reading, the pressure drop across a baghouse is outside of the normal range, the Permittee shall take a reasonable response. The normal range for each baghouse is a pressure drop between three (3.0) and five (5.0) inches of water unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

No other changes have been made to the permit.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-9327 or toll free at 1-800-451-6027 extension 3-9327.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management Office of Air Quality

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

Source Description and Location

Source Name: JFS Milling, Inc.
Source Location: 5167 North State Road 67, Bruceville, IN 47516
County: Knox
SIC Code: 2048 (Prepared Feed and Feed Ingredients for Animals and Fowls, Except Dogs and Cats)
Operation Permit No.: F083-32071-00058
Permit Reviewer: Hannah L. Desrosiers

On June 29, 2012, the Office of Air Quality (OAQ) received an application from JFS Milling, Inc. related to the construction and operation of a new stationary animal feed mill.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Knox County. The following attainment status designations are applicable to Knox County:

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment as of June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.	

(Air Pollution Control Board; 326 IAC 1-4-43; filed Dec 26, 2007, 1:43 p.m.: 20080123-IR-326070308FRA)

- (a) Ozone Standards
 Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Knox County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) PM_{2.5}
 Knox County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct PM_{2.5} significant level at ten (10) tons per year. This rule

became effective, June 28, 2011. Therefore, direct PM_{2.5} and SO₂ 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.

(c) Other Criteria Pollutants

Knox County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

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

Note: Although this source will include truck loading and unloading stations, and grain handling and storage operations, activities consistent with a "*grain elevator*", as defined under 40 CFR 60.301(b), a source category regulated under New Source Performance Standard for Grain elevators (40 CFR 60, Subpart DD) (promulgated 01/13/77), "*grain elevators*" located at animal food manufacturers are specifically exempted. Additionally, the animal feed mill is not a wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant. Therefore, the source is not considered a "*grain terminal elevator*", as defined under 40 CFR 60.301(c), or a "*grain storage elevator*", as defined under 40 CFR 60.301(f). Consequently, the source does not belong to a stationary source category that as of August 7, 1980 (effective date of proposal) was regulated by New Source Performance Standards (NSPS) pursuant to Section 111 of the Act and fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Background and Description of New Source Construction

The Office of Air Quality (OAQ) has reviewed an application, submitted by JFS Milling, Inc. on June 29, 2012, relating to the construction and operation of a new stationary animal feed mill.

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

- (a) Truck receiving pit #1, identified as ES-1, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-1, and exhausting to stack# ES-1
- (b) Truck receiving pit #2, identified as ES-2, having a maximum throughput capacity of 300 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-2, and exhausting to stack# ES-2
- (c) Mill Receiving Distribution, identified as ES-3, having a maximum throughput capacity of 200 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-3, and exhausting to stack# ES-3;
- (d) Hammermill #1, identified as ES-4, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-4, and exhausting to stack# ES-4
- (e) Hammermill #2, identified as ES-5, having a maximum throughput capacity of 30 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-5, and exhausting to stack# ES-5

- (f) Ground Grain Distribution, identified as ES-6, having a maximum throughput capacity of 60 tons ground grain/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-6, and exhausting to stack# ES-6;
- (g) Pneumatic Truck Receiving, identified as ES-7, having a maximum throughput capacity of 25 tons of dry ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-7, and exhausting to stack# ES-7;
- (h) Mixed Feed System, identified as ES-8, having a maximum throughput capacity of 125 tons of ingredients/hr, with particulate emissions controlled by one (1) jet pulse baghouse, identified as F-8, and exhausting to stack# ES-8;
- (i) Pellet Cooling #1, identified as ES-9, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, with particulate emissions controlled by one (1) integral cyclone system, consisting of two (2) cyclones in series, identified as C-1, and exhausting to stack# ES-9;
- (j) Boiler #1, identified as ES-11, with a maximum heat input capacity of 12.6 MMBtu/hr, firing natural gas (only), uncontrolled, and exhausting to stack# ES-11;

Under 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units, Boiler #1 is considered an affected steam generating unit.

- (k) Finished Feed Loadout, identified as ES-13, having a maximum throughput capacity of 400 tons of pelleted animal feed/hr, uncontrolled and exhausting to stack# ES-13;
- (l) Three (3) Whole Grain Storage Tanks, jointly identified as ES-14 and singly identified as Tank 101, Tank 102, and Tank 103, having a maximum throughput capacity of 560 tons of whole grain/hr, and a maximum combined storage capacity of 570,000 Bushels, uncontrolled and-exhausting to stack# ES-14;
- (m) Micro Ingredients System, identified as ES-15, having a maximum throughput capacity of 10 tons of micro ingredients/hr, uncontrolled and exhausting inside the building;
- (n) Finished Feed Distribution, identified as ES-16, having a maximum throughput capacity of 50 tons of pelleted animal feed/hr, completely enclosed and feeding directly into the Finished Feed Loadout (ES-13), uncontrolled and exhausting to stack# ES-13;

Note: This animal feed mill is specifically designed to produce a maximum of 10,000 tons of finished feed per week, or 520,000 tons of finished feed per year, based on the existence of two (2) pellet mills and two (2) boilers. The pelleting operation is the limiting factor for this facility, and acts as an operational bottleneck.

Under 40 CFR 63, Subpart DDDDDDD, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Sources: Prepared Feeds Manufacturing, this stationary animal feed mill is considered an affected prepared feeds manufacturing facility.

- (o) Insignificant activities consisting of the following:
 - (1) Natural gas pressure regulator vents, excluding venting at oil and gas production facilities;
 - (2) Blowdown for the following:
 - (A) Boiler; and
 - (B) Compressors.
 - (3) Air compressors and pneumatically operated equipment, including hand tools;

- (4) Activities performed using hand-held equipment including the following:
 - (A) Cutting, excluding cutting torches;
 - (B) Drilling;
 - (C) Grinding; and
 - (D) Surface grinding.
- (5) The following equipment related to manufacturing activities not resulting in the emission of HAPs:
 - (A) Cutting torches;
 - (B) Soldering equipment; and
 - (C) Welding equipment.
- (6) Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOC or HAP;
- (7) Storage tanks, reservoirs, and pumping and handling equipment of any size containing soap, wax, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized;
- (8) Storage tanks with capacity less than or equal to one thousand (1,000) gallons and annual throughputs less than twelve thousand (12,000) gallons, storing lubricating oils;
- (9) Application of greases and lubricants as temporary protective coatings;
- (10) Closed loop heating and cooling systems;
- (11) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment;
- (12) One (1) Truck washing station; and
- (13) Paved and unpaved roads and parking lots with public access [326 IAC 6-4]

Unpermitted Emission Units and Pollution Control Equipment

No unpermitted emission units were discovered operating at the source during this review process.

“Integral Part of the Process” Determination

The applicant has submitted the following information to justify why the cyclone system, consisting of two (2) cyclones in series, serving the Pellet Cooling System (ES-9), should be considered an integral part of the process:

- (a) The cyclones serve a primary purpose other than pollution control.
The cyclones would be used regardless of any rules pertaining to dust emissions due to the fact that they are used to recapture product entrained in the air, as follows:

Feed materials heat up during the pelleting process; therefore, the product must be cooled prior to storage. In the pellet cooler, a negative air system is used to cool and dry the product. Product

that is pulled out with the air is reclaimed by the cyclone system and discharged back onto the cooler discharge conveyor.

- (b) The cyclones have an overwhelming positive net economic effect.
The value of the feed materials recovered by the cyclones exceeds the total capital and operating costs of the cyclones, as follows:

In the following Product Savings Analysis (Exhibit A), the initial investment that is used in the analysis is the estimated installed cost of the cyclones, over ten (10) years. The annual cost for the labor associated with maintenance of the cyclones was estimated based on similar operations. The other figures used in this analysis are the average per pound costs of the product as well as the estimated amount of product entering the pellet cooler and the percent of that product that is captured in the cyclone system. The estimated annual savings from using the cyclones are \$988,425.

Exhibit A: Product Savings Analysis

Initial Investment

Purchased Equipment - \$25,000/10 years	\$	2,500 per year
Installation costs - \$75,000/10 years	\$	<u>7,500 per year</u>
<i>Subtotal of Equipment Costs:</i>	\$	<i>10,000 per year</i>

Maintenance/Operations

Annual Maintenance costs @ \$15 / hr x 104 hrs/yr	\$	<u>1,575 per year</u>
<i>Subtotal of Equipment & Operational Costs:</i>	\$	<i>11,575 per year</i>

Product Savings

Estimated amount of product entering pellet cooler:	50,000 tons per year
Percentage of materials captured by cyclones:	5 %
Annual amount of materials captured by cyclones:	2,500 tons
Average cost of materials:	<u>\$ 400 per ton</u>
<i>Savings from use of recovered material:</i>	<i>\$ 1,000,000 per year</i>

Total Economic Impact

Product Savings minus Equipment & Operational Costs:	\$ 988,425 per year
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IDEM, OAQ has evaluated the information submitted and agrees that the cyclone system, consisting of two (2) cyclones in series, should be considered an integral part of the Pellet Cooling System (ES-9). This determination is based on the fact that the cyclone system is used to recover product that has become entrained in the negative air system of the pellet cooler, and that using the device in this manner provides an overwhelming positive net economic benefit. Additionally, a November 14th 1995 EPA memorandum, titled "Calculating PTE and other Guidance for Grain Handling Facilities" states "[Control measures that are "inherent" are those which are always being operated and maintained for reasons other than community air quality protection. Examples of inherent control measures include (a) product collection devices for which the value of the product collected greatly exceeds the cost of the collection device, and (b) devices for which the primary purpose is to improve product-quality control, to recover product, or to enhance production operating efficiency (for example, product recovery cyclones associated with operations such as pellet coolers at feed mills).]".

Therefore, for purposes of determining permitting level, the potential to emit particulate matter from the Pellet Cooling System (ES-9) was calculated after the cyclone system (C-1), consisting of two (2) cyclones

in series. However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD) and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) applicability, the potential to emit particulate matter from the Pellet Cooling System (ES-9) was calculated before consideration of the cyclone system (C-1). Operating conditions in the proposed permit will specify that the cyclone system (C-1) shall operate at all times when the Pellet Cooling System (ES-9) is in operation.

This integral determination does not negate the requirement for a limit to comply with 326 IAC 2-2 (Prevention of Significant Deterioration).

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations. The following applies:

1. According to WL Portland Systems, Inc., the engineering firm contracted to design this new stationary animal feed mill, this facility is specifically designed to produce a maximum of 10,000 tons of finished feed per week, or 520,000 tons of finished feed per year, based on the existence of two pellet mills and two boilers. The pelleting operation is the limiting factor for this facility, and acts as an "operational bottleneck", since the source will only process as much raw material as can be used in the production of the animal feed (product) and can only ship as much as is produced. The source has requested that the maximum design capacity be used to calculate PTE, even though they are only constructing one pellet mill and one boiler at this time, to maximize operational flexibility.
2. To form a conservative estimate, it is assumed that the amount of raw materials being received in Truck Pits #1 & #2, and being handled by the Mill Receiving Distribution System, equals the amount of finished feed produced.
3. 60% of the feed formulation (6,000 tons/wk or 312,000 tons/yr) is comprised of whole grain, which is ground prior to pelleting.
4. The cyclone system, consisting of two (2) cyclones in series, serving the Pellet Cooling System (ES-9), is considered "integral to process"; therefore the potential to emit after controls has been used in determining the permitting level and 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) applicability (see the "Integral Part of the Process" Determination Section for further explanation). However, for purposes of determining the applicability of Prevention of Significant Deterioration (PSD), the potential to emit particulate matter from the Pellet Cooling System (ES-9) was calculated before consideration of the cyclone system (C-1). Control efficiencies for the integral cyclone serving the Pellet cooling system are assumed 95% control for PM (required for compliance with 40 CFR 63, Subpart DDDDDDD), and 90% control for PM10.

The potential to emit from the Pellet Cooling System (ES-9) was calculated using AP-42 emission factors for Grain Elevators and Processes (Fifth Edition, Chapter 9.9.1, Table 9.9.1-2, Particulate Emission Factors for Grain Processing Facilities, Pelletizing, Pellet Cooler (SCC 3-02-008-16), High Efficiency Cyclone). The controlled emission factor was converted to an uncontrolled emission factor, as follows: $[\text{Controlled Emission Factor (lb pollutant/ton grain)} / (1 - \text{control efficiency}/100)]$, where the control efficiency is assumed 99%. The PM10 emission factor was estimated by taking 50% of the PM emission factor, and in the absence of AP 42 emission factors, it is assumed that PM2.5 emissions are equal to PM10 emissions.

5. The Finished Feed Distribution system is totally enclosed and feeds directly into the Finish Feed Load Out, which is contained within a four (4) sided concrete enclosure having two (2) 12' x 14' openings for truck entrance/exit. Therefore, IDEM has determined that particulate emissions from these activities could reasonably be ducted to a control device. Additionally, it is reasonable that

bin vent filters could be installed on each of the grain tanks. Consequently, these emissions are not considered fugitive in nature.

Permit Level Determination – FESOP

The following table reflects the unlimited potential to emit (PTE) of the entire source before and after the integral cyclone system serving the Pellet Cooling System. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (tons/year)
PM ⁽¹⁾	418.69 (before integral controls) 368.68 (after integral controls)
PM10 ⁽¹⁾⁽²⁾	334.21 (before integral controls) 307.89 (after integral controls)
PM2.5 ⁽¹⁾	304.26 (before integral controls) 277.93 (after integral controls)
SO ₂	0.03
NO _x	5.50
VOC	0.30
CO	4.62
GHGs as CO ₂ e	6,638.01
Total HAPs	0.14
Worst Single HAP	0.10 (hexane)

- (1) The cyclone system, consisting of two (2) cyclones in series, serving the Pellet Cooling System (ES-9), is considered "integral to process", therefore, the potential to emit after controls has been used in determining the permitting level (see the "Integral Part of the Process" Determination Section of the TSD for further explanation).
- (2) Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of PM10 and PM2.5 (after integral controls) are each greater than one hundred (100) tons per year. The PTE of all other regulated criteria pollutants are each less than one hundred (100) tons per year. The source would have been subject to the provisions of 326 IAC 2-7. However, the source will be issued a New Source Construction Permit (326 IAC 2-5.1-3) and a Federally Enforceable State Operating Permit (FESOP) (326 IAC 2-8), because the source will limit emissions to less than the Title V major source threshold levels.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) greenhouse gases (GHGs) is less than the Title V subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year.
- (c) The potential to emit (PTE) (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the PTE of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).

PTE of the Entire Source After Issuance of the FESOP

The table below summarizes the potential to emit of the entire source after issuance of this FESOP, reflecting all limits, of the emission units. Any control equipment is considered federally 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 of the Entire Source After Issuance of FESOP (tons/year)									
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	GHGs as CO ₂ e**	Total HAPs	Worst Single HAP
Truck Receiving Pits #1 & #2 (ES1, ES2) ^α	9.10	2.03	0.34	0	0	0	0	0	0	NA
Mill Receiving Distribution (ES-3) ^α	15.86	8.84	1.51	0	0	0	0	0	0	NA
Hammermills #1 & #2 (ES-4, ES-5) ^α	165.98	60.84	82.84	0	0	0	0	0	0	NA
Ground Grain Distribution (ES-6) ^α	9.52	5.30	0.90	0	0	0	0	0	0	NA
Pneumatic Truck Receiving (ES-7)	13.32	8.58	8.58	0	0	0	0	0	0	NA
Mixed Feed System (ES-8)	0.64	0.36	0.06	0	0	0	0	0	2.57E ⁻⁴	2.57E ⁻⁴ (manganese)
Pellet Cooling #1 (ES-9) ^β	2.63	2.63	2.63	0	0	0	0	0	1.05E ⁻³	1.05E ⁻³ (manganese)
Boiler #1 (ES-11)	0.10	0.42	0.42	0.03	5.50	0.30	4.62	6,638	0.10	0.099 (hexane)
Finish Feed Load Out (ES-13) ^α	22.36	7.54	1.27	0	0	0	0	0	8.94E ⁻³	8.94E ⁻³ (manganese)
Grain Tanks (ES-14/Tanks 101 - 103)	9.13	2.30	0.40	0	0	0	0	0	0	NA
Micro Ingredients System	0.05	0.03	4.89E ⁻³	0	0	0	0	0	4.26E ⁻³	4.26E ⁻³ (manganese)
Finish Feed Distribution (ES-16)	0.21	0.12	0.02	0	0	0	0	0	8.56E ⁻⁵	8.56E ⁻⁵ (manganese)
Fugitive Emission Sources (paved roads) ^γ	4.74	0.95	0.25	0	0	0	0	0	0	NA
Total PTE of Entire Source	248.91	98.99	98.98	0.03	5.50	0.30	4.62	6,638.01	0.12	0.10 (hexane)
Title V Major Source Thresholds**	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds**	250	250	250	250	250	250	250	100,000	NA	NA

NA - not applicable.
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**The 100,000 CO₂e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.
α Limited PTE based upon an annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).
β Potential to emit (PTE) after consideration of integral controls.
γ Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

FESOP and PSD Minor Source Status

This new source is not a Title V major stationary source because the potential to emit PM10 and PM2.5 from the entire source will be limited to less than the Title V major source threshold levels and the potential to emit all other regulated criteria pollutants are less than the Title V major source threshold levels. In addition, this new source is not a major source of HAPs, as defined in 40 CFR 63.41, because the potential to emit HAPs is less than ten (10) tons per year for a single HAP and

twenty-five (25) tons per year of total HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act and is subject to the provisions of 326 IAC 2-8 (FESOP).

This new source is not a major stationary source, under PSD (326 IAC 2-2), because the potential to emit PM is limited to less than 250 tons per year, the potential to emit all other attainment regulated criteria pollutants are less than 250 tons per year, the potential to emit greenhouse gases (GHGs) is less than the PSD subject to regulation threshold of one hundred thousand (100,000) tons of CO₂ equivalent emissions (CO₂e) per year, and this source is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1). Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

In order to comply with the requirements of 326 IAC 2-8-4 (FESOP) and render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM10 and PM2.5 emissions from the following emission unit(s) shall not exceed the limitations listed in the table below:

Unit ID	Unit Description	Annual Material Throughput Limit (tons/yr)	PM10 Emission Limit (lbs/ton)	PM2.5 * Emission Limit (lbs/ton)
ES-1, ES-2	Truck Receiving Pits #1 & #2 ^{α,χ}	520,000	0.0078	0.0013
ES-3	Mill Receiving Distribution ^{α,χ}	520,000	0.034	0.0058
ES-4, ES-5	Hammermills #1 & #2 ^{β,δ}	312,000	0.390	0.531
ES-6	Ground Grain Distribution ^{β,χ}	312,000	0.034	0.0058
ES-13	Finish Feed Load Out ^{α,χ}	520,000	0.029	0.0049

Annual Throughput Limitations (tons/yr) are as follows:
α JFS Milling, Inc. has accepted the facility's maximum design capacity as an annual production limitation on "Truck Receiving Pits #1 & #2", the "Mill Receiving Distribution", and the "Finished Feed Loadout", each.
β The Hammermills (#1 & #2) and the Ground Grain Distribution are limited to 312,000 tons/yr (60% of the feed formulation), each.

Emission Limitations are as follows:
χ Uncontrolled/unlimited Emission factors from AP-42, Fifth Edition, Chapter 9.9.1 - Grain Elevators and Processes, AP-42, Fifth Edition, Table 9.9.1-1, Particulate Emission Factors for Grain Elevators.
δ Pound per ton (lb/ton) emission limitations to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).

Compliance with these limits, combined with the potential to emit PM10 and PM2.5 from all other emission units at this source, shall limit the source-wide total potential to emit of PM10 and PM2.5 to less than 100 tons per 12 consecutive month period, each and shall render the requirements of 326 IAC 2-7 (Part 70 Permits) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable, the annual material throughput and pound per ton (lb/ton) PM emissions from the following emission unit(s) shall not exceed the limitations listed in the table below:

Unit ID	Unit Description	Annual Throughput Limit (tons/yr)	PM Emission Limit (lbs/ton)
ES-1, ES-2	Truck Receiving Pits #1 & #2 ^{α, χ}	520,000	0.035
ES-3	Mill Receiving Distribution ^{α, χ}	520,000	0.061
ES-4, ES-5	Hammermills #1 & #2 ^{β, δ}	312,000	1.064
ES-6	Ground Grain Distribution ^{β, χ}	312,000	0.061
ES-13	Finish Feed Load Out ^{α, χ}	520,000	0.086
<p>Annual Throughput Limitations (tons/yr) are as follows: ^α JFS Milling, Inc. has accepted the facility's maximum design capacity as an annual production limitation on "Truck Receiving Pits #1 & #2", the "Mill Receiving Distribution", and the "Finished Feed Loadout", each. ^β The Hammermills (#1 & #2) and the Ground Grain Distribution are limited to 312,000 tons/yr (60% of the feed formulation), each.</p> <p>Emission Limitations are as follows: ^χ Uncontrolled/unlimited Emission factors from AP-42, Fifth Edition, Chapter 9.9.1 - Grain Elevators and Processes, AP-42, Fifth Edition, Table 9.9.1-1, Particulate Emission Factors for Grain Elevators. ^δ Pound per ton (lb/ton) emission limitations to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).</p>			

Compliance with these limits, combined with the potential to emit PM from all other emission units at this source, shall limit the source-wide total potential to emit of PM to less than 250 tons per 12 consecutive month period and shall render 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

(a) 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial/Commercial/Institutional Steam Generating Units

Boiler #1, identified as ES-11, firing natural gas (only), is subject to the New Source Performance Standards for Small Industrial-Commercial-Institutional Steam Generating Units (40 CFR 60, Subpart Dc), because it is a steam generating unit, as defined in §60.41c, for which construction, modification, or reconstruction is commenced after June 9, 1989, that combusts fossil fuel, and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/h)) or less, but greater than or equal to 2.9 MW (10 MMBtu/h).

The facility subject to this rule includes the following:

Boiler #1, identified as ES-11, with a maximum heat input capacity of 12.6 MMBtu/hr, firing natural gas (only), uncontrolled, and exhausting to stack# ES-11;

Applicable portions of the NSPS are the following:

- (1) 40 CFR 60.40c(a), (b), (c), (d)
- (2) 40 CFR 60.41c
- (3) 40 CFR 60.48c(a)(1), (g), (i)

Note: There are no testing requirements applicable to this source for this NSPS.

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

(b) 40 CFR 60, Subpart DD - Standards of Performance for Grain Elevators

The requirements of the New Source Performance Standard for Grain Elevators, 40 CFR 60, Subpart DD (326 IAC 12), are not included in the permit, since although this source will include truck loading and unloading stations, and grain handling and storage operations, activities consistent with a "grain elevator" as defined under 40 CFR 60.301(b), "grain elevators" located at animal food manufacturers are specifically exempted. Moreover, this source intends to construct

an animal feed mill and not a wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant. Therefore, the source is not considered a "grain terminal elevator", as defined under 40 CFR 60.301(c), or a "grain storage elevator", as defined under 40 CFR 60.301(f).

- (c) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (a) 40 CFR 63, Subpart DDDDD - NESHAPs for Industrial, Commercial, and Institutional Boilers and Process Heaters

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers and Process Heaters, 40 CFR 63, Subpart DDDDD (5D) (326 IAC 20), are not included in the permit, since this source is not a major source of HAPs, and is not located at nor is a part of a major source of HAP emissions.

- (b) 40 CFR 63, Subpart JJJJJ - NESHAPs for Industrial, Commercial, and Institutional Boilers Area Sources

The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Industrial, Commercial, and Institutional Boilers Area Sources, 40 CFR 63, Subpart JJJJJ (6J), are not included in the permit for Boiler #1, identified as ES-11, because gas-fired boilers, as defined in 40 CFR 63.11237, are specifically exempted from this rule as indicated in 40 CFR 63.11195(e).

- (c) 40 CFR 63, Subpart DDDDDDD - NESHAPs for Area Sources: Prepared Feeds Manufacturing

This source is subject to the National Emission Standards for Hazardous Air Pollutants for Area Sources: Prepared Feeds Manufacturing (40 CFR 63, Subpart DDDDDDD (7D)), because this source is an area source of emissions of hazardous air pollutants (HAP) and will operate a prepared feeds manufacturing facility that uses materials intentionally containing manganese.

The facilities subject to this rule include the following:

- permanent bins/containers used to store feed materials containing chromium and/or manganese;
- temporary storage bins/containers used to store feed materials containing chromium and/or manganese;
- conveyors and other equipment that transfer the feed materials containing chromium and/or manganese throughout the manufacturing facility;
- mixing and grinding processes;
- pelleting and pellet cooling processes;
- packing and bagging processes;
- crumblers and screens; and
- bulk loading operations.

Applicable portions of the NESHAP are the following:

- | | | | |
|-----|---|------|------------------|
| (1) | 40 CFR 63.11619(a), (b)(2), (b)(3), (c), (e); | (6) | 40 CFR 63.11624; |
| (2) | 40 CFR 63.11620(b); | (7) | 40 CFR 63.11625; |
| (3) | 40 CFR 63.11621; | (8) | 40 CFR 63.11626; |
| (4) | 40 CFR 63.11622; | (9) | 40 CFR 63.11627; |
| (5) | 40 CFR 63.11623; | (10) | Table 1. |

Note: this NESHAP does include testing requirements applicable to this source.

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart DDDDDDD.

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

Compliance Assurance Monitoring (CAM)

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

State Rule Applicability Determination - Entire Source

The following state rules are applicable to the source:

- (a) 326 IAC 1-5-2 (Emergency Reduction Plans)
The potential to emit PM is greater than one hundred (100) tons per year. Therefore, the requirements of 326 IAC 1-5-2 apply and are included in Section C of the permit.
- (b) 326 IAC 1-6-3 (Preventive Maintenance Plan)
Any person responsible for operating any facility required to obtain a permit under the Federally Enforceable State Operating Permit (FESOP) Program, 326 IAC 2-8, shall prepare and maintain a preventive maintenance plan in accordance with 326 IAC 1-6-3(a), whenever a control device is required for compliance with any applicable emission limitations and/or air pollution control regulations. Hammermills # 1 and #2, and the Pellet cooling operation, each require the use of a control device to limit particulate emissions (PM/PM10/PM2.5) to less than PSD and TV thresholds. Additionally, Truck Receiving Pits #1 & #2, and the Pellet cooling operation, each require the use of a control device to comply with 326 IAC 6-3 Particulate Emission Limitations for Manufacturing Processes. Therefore, a PMP is required for each these units and their associated control devices.
- (c) 326 IAC 1-7 (Stack Height)
The uncontrolled potential to emit particulate matter (PM/PM10/PM2.5) from Hammermills # 1 and #2, the Pellet cooling operation, and the Finished Feed Loadout operation is greater than twenty-five (25) tons per year, each. Therefore, the requirements of 326 IAC 1-7 apply to each of these units and are included in Section C, of the permit.
- (d) 326 IAC 2-1.1-5 (Nonattainment New Source Review)
Knox County has been classified as attainment or unclassifiable in Indiana for PM2.5. Therefore, the requirements of 326 IAC 2-1.1-5 (Nonattainment New Source Review) do not apply and are not included in the permit.
- (e) 326 IAC 2-2 (Prevention of Significant Deterioration (PSD))
PSD applicability is discussed under the PTE of the Entire Source after Issuance of the FESOP section above.
- (f) 326 IAC 2-3 (Emission Offset)
Knox County has been classified as attainment or unclassifiable in Indiana for all criteria pollutants. Therefore, the requirements of 326 IAC 2-3 (Emission Offset) do not apply and are not included in the permit.
- (g) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an

area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.

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

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, pursuant to 326 IAC 2-6-1(b), the source is only subject to additional information requests as provided for in 326 IAC 2-6-5. .

(i) 326 IAC 5-1 (Opacity Limitations)

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

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

(j) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)

The source is subject to the requirements of 326 IAC 6-4, because the material loading and unloading, material transfer points, and the paved and unpaved roads have the potential to emit fugitive particulate emissions. Therefore, pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4.

(k) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)

The unlimited potential to emit fugitive particulate matter (PM) emissions from the entire source is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 6-5 do not apply and are not included in the permit.

(l) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)

The unlimited potential to emit VOCs from each emission unit at this source is less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6, do not apply and are not included in the permit.

(m) There are no 326 IAC 8 Rules that are applicable to this source.

(n) 326 IAC 12 (New Source Performance Standards)

See Federal Rule Applicability Section of this TSD.

(o) 326 IAC 20 (Hazardous Air Pollutants)

See Federal Rule Applicability Section of this TSD.

State Rule Applicability Determination – Individual Facilities

Animal Feed Processing

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to each of the units in the animal feed processing operations, since each of these units has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Therefore,

pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the units in the animal feed processing operations shall not exceed the corresponding pound per hour limitations listed in the table below:

Emission Unit	Process Weight Rate		326 IAC 6-3 Allowable Particulate Emission Rate (lbs/hour)	Potential Uncontrolled Particulate Emission Rates (lbs/hr)
	(tons/hr)	(lbs/hr)		
Truck Receiving Pit #1 (ES-1)	200	400,000	58.51	7.00
Truck Receiving Pit #2 (ES-2)	300	600,000	63.00	10.50
Mill Receiving Distribution (ES-3)	200	400,000	58.51	12.20
Hammermill #1 (ES-4)	30	60,000	40.04	36.00
Hammermill #2 (ES-5)	30	60,000	40.04	36.00
Ground Grain Distribution (ES-6)	200	400,000	58.51	12.20
Pneumatic Truck Receiving (ES-7)	25	50,000	35.43	18.25
Mixed Feed System (ES-8)	125	250,000	53.55	7.63
Pellet Cooling #1 (ES-9)	50	100,000	44.58	750.00
Finish Feed Load Out Area (ES-13)	400	800,000	66.31	34.40
Grain Tanks (ES-14/ Tanks 101 - 103)	300	600,000	63.00	7.50
Micro Ingredients System	10	20,000	19.18	0.61
Finished Feed Distribution (ES-16)	50	100,000	44.58	3.05

(1) These limitations were calculated as follows:

(A) 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:

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

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

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

Additionally, pursuant to 326 IAC 6-3-2(e)(3), when the process weight exceeds 200 tons per hour, the maximum allowable emission may exceed the emission limit listed above, provided the concentration of particulate matter in the gas discharged to the atmosphere is less than 0.10 pounds per 1,000 pounds of gases.

- (2) Based on the calculations in Appendix A, the following applies:
- (A) The uncontrolled, potential, particulate emission rate (lbs/hr) from Pellet Cooling #1 (ES-9), is greater than the 326 IAC 6-3 allowable emission rate (lbs/hr). Therefore, the one (1) integral cyclone system (C-1) shall be in operation at all times that Pellet Cooling #1 (ES-9) is in operation, in order to comply with this limit.
- (B) The uncontrolled, potential, particulate emission rate (lbs/hr) from Truck Receiving Pits #1 & #2 (ES-1, ES-2), the Mill Receiving Distribution (ES-3), Hammermills # 1 and #2 (ES-4, ES-5), Ground Grain Distribution (ES-6), Pneumatic Truck Receiving (ES-7), Mixed Feed System (ES-8), Finish Feed Load Out Area (ES-13), Grain Tanks (ES-14/ Tanks 101 - 103), Micro Ingredients System, and Finished Feed Distribution (ES-16), each, is less than the 326 IAC 6-3-2 allowable emission rate (lbs/hr). Therefore, a control device is not needed for any of these units to comply with the 326 IAC 6-3 limits listed in the table above.

See Appendix A, for the detailed calculations.

Natural Gas Combustion - Boiler #1

- (a) 326 IAC 4-2-2 (Incinerators)
The one (1) 12.6 MMBtu/hr natural gas-fired boiler is not an incinerator, as defined by 326 IAC 1-2-34, since it does not burn waste substances. Therefore, 326 IAC 4-2-2 does not apply and the requirements are not included in the permit.
- (b) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The one (1) 12.6 MMBtu/hr natural gas-fired boiler is subject to 326 IAC 6-2-4 because it was constructed after the rule applicability date of September 21, 1983, and meets the definition of an indirect heating unit, as defined in 326 IAC 1-2-19, since it combusts fuel to produce usable heat that is to be transferred through a heat-conducting materials barrier or by a heat storage medium to a material to be heated so that the material being heated is not contacted by, and adds no substance to the products of combustion.

When the total source capacity (Q) is greater than 10, and less than or equal to 10,000 MMBtu/hr, particulate emissions shall be limited using the following equation:

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

where:

- Pt = Pounds of particulate matter emitted per million British thermal units (lb/MMBtu) heat input
- Q = Total source maximum operating capacity rating in million British thermal units per hour (MMBtu/hr) 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 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.

The heat input capacity of the boiler is 12.6 MMBtu/hr, and there are no boilers currently in operation since this is a new source. So:

$$Pt = 1.09/(12.6)^{0.26} = 0.56 \text{ lb/MMBtu heat input}$$

Therefore, particulate emissions from the hot oil heater shall not exceed 0.56 lbs/MMBtu heat input.

Based on Appendix A, and AP-42, the potential PM emission rate is 1.9 pounds per million cubic feet of natural gas, or 0.0019 lbs/MMBtu. Therefore, the boiler is able to comply with this limit without the use of a control device.

See Appendix A for the detailed calculations.

(c) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The one (1) 12.6 MMBtu/hr natural gas-fired boiler is not subject to the requirements of 326 IAC 6-3 because it is already otherwise subject to 326 IAC 6-2.

(d) 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations)
The unlimited potential to emit SO₂ from the one (1) 12.6 MMBtu/hr natural gas-fired boiler is less than twenty-five (25) tons/year, or ten (10) pounds/hour. Therefore, the requirements of 326 IAC 7-1.1 do not apply and are not included in the permit for this facility.

See Appendix A for the detailed calculations.

(e) 326 IAC 9-1 (Carbon Monoxide Emission Limits)
The one (1) 12.6 MMBtu/hr natural gas-fired boiler is not one of the source types listed in 326 IAC 9-1-2. Therefore, the requirements of 326 IAC 9-1 (Carbon Monoxide Emission Limits) do not apply and are not included in the permit.

(f) 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category)
The one (1) 12.6 MMBtu/hr natural gas-fired boiler does not meet the definition of an affected facility, as defined in 326 IAC 10-3-1(a), because the heater has a maximum a heat input of less than two hundred fifty million (250,000,000) British thermal units per hour (MMBtu). Therefore, the requirements of 326 IAC 10-3 (Nitrogen Oxide Reduction Program for Specific Source Category) do not apply and are not included in the permit.

Compliance Determination, Monitoring and Testing Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a 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 Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements 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 determination, testing, and monitoring requirements applicable to this source are as follows:

Compliance Determination Requirements

- (a) The compliance determination requirements applicable to this source are as follows:
- (1) The annual material throughput limits will be used to verify compliance with the PSD PM limitation, and the FESOP PM₁₀ and PM_{2.5} limitations.
 - (2) In order to comply with the PM, PM₁₀, and PM_{2.5} limitations in the permit, the baghouses serving Hammermills #1 & #2 (ES-4, ES-5) shall be in operation and control emissions

from each of the Hammermills at all times when the corresponding Hammermill is in operation.

- (3) In order to comply with the PM, PM10, and PM2.5 limitations in the permit, the integral cyclone system (C-1), consisting of two (2) cyclones in series, serving Pellet Cooling #1 (ES-9) shall be in operation and control emissions from the pellet cooler at all times when the pellet cooler is in operation.

Testing Requirements

- (b) The testing requirements applicable to this source are as follows:

Testing Requirements				
Emission Unit	Control Device	Pollutant	Timeframe for Testing	Frequency of Testing
Hammermills #1 ⁽¹⁾	Baghouse F-3	PM/PM10/PM2.5	No later than 180 days after issuance of this FESOP	Once every five (5) years
Hammermills #2 ⁽¹⁾	Baghouse F-4	PM/PM10/PM2.5	No later than 180 days after issuance of this FESOP	Once every five (5) years
Pellet Cooling #1 ⁽²⁾	Integral Cyclone System C-1 (two (2) cyclones)	PM/PM10/PM2.5	No later than 180 days after issuance of this FESOP	Once every five (5) years

Notes:

- (1) Post-baghouse testing is required to confirm compliance with 326 IAC 2-8 (FESOP) and the limits that render 326 IAC 2-2 (PSD), and 326 IAC 2-7 (Part 70 Permit Program), not applicable.
- (2) Testing is required to confirm compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). Additionally, Testing is required to confirm compliance with 40 CFR 63, Subpart DDDDDDD (NESHAPs for Area Sources: Prepared Feeds Manufacturing). Alternately, pursuant to §63.11621(e)(1), the company may choose to demonstrate that the cyclone is designed to reduce emissions of particulate matter by 95 percent or greater by providing a copy of the Manufacturer specifications, or Certification by a professional engineer or responsible official, instead of conducting the 5-year repeat performance test in accordance with §63.11623.

Note: IDEM has determined that testing will not be required to confirm the compliance status with FESOP; since the method used to calculate the PTE from Pellet Cooling #1 (ES-9), is sufficiently conservative.

- (3) Testing is not required for the baghouses serving the two (2) Truck Receiving Pits #1 & #2 (ES-1, ES-2), the Mill Receiving Distribution (ES-3), Ground Grain Distribution (ES-6), or for the Finish Feed Load Out Area (ES-13), since the AP-42 uncontrolled/unlimited emission factors were used to calculate the potential to emit after issuance for these units. Additionally, a control device is not needed for these units to comply with 326 IAC 6-3.
- (4) Testing is not required for the Pneumatic Truck Receiving (ES-7), Mixed Feed System (ES-8), Grain Tanks (ES-14/ Tanks 101 - 103), and Micro Ingredients System, since the maximum potential throughput and AP-42 uncontrolled/unlimited emission factors were used to calculate the potential to emit after issuance for these units. Additionally, a control device is not needed for these units to comply with 326 IAC 6-3.

Compliance Monitoring Requirements

- (a) The compliance monitoring requirements applicable to this source are as follows:

Emission Unit/Control	Operating Parameters	Frequency	Range/Rate
Baghouse F-3, serving Hammermill #1	Pressure Drop	Once per day	3 to 5 inches
Baghouse F-4, serving Hammermill #2	Pressure Drop	Once per day	3 to 5 inches
Integral cyclone system, serving Pellet Cooling #1	Visible Emissions	Once per day	normal/abnormal

- (1) These monitoring conditions are necessary because the baghouses used in conjunction with Hammermills #1 & #2 must operate properly to ensure continued compliance with 326 IAC 2-8 (FESOP), and the limits that render 326 IAC 2-2 (PSD) and 326 IAC 2-7 (Part 70 Permit Program) not applicable.
- (2) These monitoring conditions are necessary because the integral cyclone system, consisting of two (2) cyclones in series, used in conjunction with Pellet Cooling #1 must operate properly to ensure continued compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 29, 2012.

The construction and operation of this source shall be subject to the conditions of the attached proposed New Source Construction and FESOP No. F083-32071-00058. The staff recommends to the Commissioner that this New Source Construction and FESOP be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Ms. Hannah Desrosiers at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-9327 or toll free at 1-800-451-6027 extension 3-9327.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.in.gov/idem

**Appendix A: Emissions Calculations
Entire Source Summary**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Unlimited/Uncontrolled Potential to Emit (tons/year)																	
Category	Pollutant	Emissions Generating Activity												TOTAL ⁽²⁾		Total Fugitive Emissions Paved Roads ⁽¹⁾	
		Truck Receiving Pits #1 & #2 (ES-1, ES-2)	Mill Receiving Distribution (ES-3)	Hammermills #1 & #2 (ES-4, ES-5)	Ground Grain Distribution (ES-6)	Pneumatic Truck Receiving (ES-7)	Mixed Feed System (ES-8)	Pellet Cooling #1 (ES-9)	Boiler #1 (ES-11)	Finish Feed Load Out ⁽¹⁾ (ES-13)	Grain Storage Tanks (Tanks 101 - 103) (ES-14)	Micro Ingredients Scales (ES-15)	Finished Feed Distribution (ES-16)	PSD Applicability Determination	Permit Level Determination		
Criteria	PM	12.78	22.27	262.80	13.36	13.32	0.64	2.63	0.10	31.39	9.13	0.05	0.21	418.69	368.68	4.74	
Pollutants	PM10	2.85	12.41	262.80	7.45	8.58	0.36	2.63	0.42	10.59	2.30	0.03	0.12	334.21	307.89	0.95	
	PM2.5	0.47	2.12	262.80	1.27	8.58	0.06	2.63	0.42	1.79	0.40	4.9E-03	2.0E-02	304.26	277.93	0.25	
	SO2	0	0	0	0	0	0	0	0.03	0	0	0	0	0.03	0.03	0	
	NOx	0	0	0	0	0	0	0	5.50	0	0	0	0	5.50	5.50	0	
	VOC	0	0	0	0	0	0	0	0.30	0	0	0	0	0.30	0.30	0	
	CO	0	0	0	0	0	0	0	4.62	0	0	0	0	4.62	4.62	0	
	GHGs as CO2e	0	0	0	0	0	0	0	6,638.01	0	0	0	0	6,638.01	6,638.01	0	
	Hazardous Air Pollutants	Benzene	0	0	0	0	0	0	0	1.15E-04	0	0	0	0	1.15E-04	1.15E-04	0
		Dichlorobenzene	0	0	0	0	0	0	0	6.60E-05	0	0	0	0	6.60E-05	6.60E-05	0
Formaldehyde		0	0	0	0	0	0	0	4.12E-03	0	0	0	0	4.12E-03	4.12E-03	0	
Hexane		0	0	0	0	0	0	0	0.099	0	0	0	0	0.10	0.10	0	
Toluene		0	0	0	0	0	0	0	1.87E-04	0	0	0	0	1.87E-04	1.87E-04	0	
Cadmium		0	0	0	0	0	0	0	6.05E-05	0	0	0	0	6.05E-05	6.05E-05	0	
Chromium		0	0	0	0	0	0	0	7.70E-05	0	0	0	0	7.70E-05	7.70E-05	0	
Lead		0	0	0	0	0	0	0	2.75E-05	0	0	0	0	2.75E-05	2.75E-05	0	
Manganese		0	0	0	0	0	2.57E-04	0.02	2.09E-05	0.01	0	4.26E-03	8.56E-05	0.04	0.04	0	
Nickel		0	0	0	0	0	0	0	1.15E-04	0	0	0	0	1.15E-04	1.15E-04	0	
Totals	0	0	0	0	0	2.6E-04	0.021	0.104	0.013	0	4.26E-03	8.56E-05	0.14	0.14	0		
Worse Case HAP														0.10	0.10		

Total emissions based on rated capacity at 8,760 hours/year.

- (1) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.
- (2) The cyclone system, consisting of two (2) cyclones in series, serving the Pellet Cooling System (ES-9), is considered "integral to process", therefore, the potential to emit after controls has been used in determining the permitting level (see the "Integral Part of the Process" Determination Section of the TSD for further explanation). However, this integral determination does not negate any requirement for a limit to comply with 326 IAC 2-2 (Prevention of "Significant Deterioration").

Potential To Emit of the Entire Source After Issuance of FESOP (tons/year)																
Category	Pollutant	Emissions Generating Activity												TOTAL	Total Fugitive Emissions Paved Roads ⁽⁴⁾	
		Truck Receiving Pit #1 & Pit #2 ⁽¹⁾ (ES-1, ES-2)	Mill Receiving Distribution ⁽¹⁾ (ES-3)	Hammermills #1 & #2 ⁽¹⁾ (ES-4, ES-5)	Ground Grain Distribution ⁽¹⁾ (ES-6)	Pneumatic Truck Receiving ⁽²⁾ (ES-7)	Mixed Feed System ⁽²⁾ (ES-8)	Pellet Cooling #1 ⁽³⁾ (ES-9)	Boiler #1 ⁽²⁾ (ES-11)	Finish Feed Load Out ⁽¹⁾ (ES-13)	Grain Storage Tanks ⁽²⁾ (Tanks 101 - 103) (ES-14)	Micro Ingredients Scales ⁽²⁾ (ES-15)	Finished Feed Distribution ⁽²⁾ (ES-16)			
Criteria	PM	9.10	15.86	165.98	9.52	13.32	0.64	2.63	0.10	22.36	9.13	0.05	0.21	248.91	4.74	
Pollutants	PM10	2.03	8.84	60.84	5.30	8.58	0.36	2.63	0.42	7.54	2.30	0.03	0.12	98.99	0.95	
	PM2.5	0.34	1.51	82.84	0.90	8.58	0.06	2.63	0.42	1.27	0.40	4.89E-03	0.02	98.98	0.25	
	SO2	0	0	0	0	0	0	0	0.03	0	0	0	0	0.03	0	
	NOx	0	0	0	0	0	0	0	5.50	0	0	0	0	5.50	0	
	VOC	0	0	0	0	0	0	0	0.30	0	0	0	0	0.30	0	
	CO	0	0	0	0	0	0	0	4.62	0	0	0	0	4.62	0	
	GHGs as CO2e	0	0	0	0	0	0	0	6,638.01	0	0	0	0	6,638.01	0	
	Hazardous Air Pollutants	Benzene	0	0	0	0	0	0	0	1.15E-04	0	0	0	0	1.15E-04	0
		Dichlorobenzene	0	0	0	0	0	0	0	6.60E-05	0	0	0	0	6.60E-05	0
Formaldehyde		0	0	0	0	0	0	0	4.12E-03	0	0	0	0	4.12E-03	0	
Hexane		0	0	0	0	0	0	0	0.099	0	0	0	0	0.10	0	
Toluene		0	0	0	0	0	0	0	1.87E-04	0	0	0	0	1.87E-04	0	
Cadmium		0	0	0	0	0	0	0	6.05E-05	0	0	0	0	6.05E-05	0	
Chromium		0	0	0	0	0	0	0	7.70E-05	0	0	0	0	7.70E-05	0	
Lead		0	0	0	0	0	0	0	2.75E-05	0	0	0	0	2.75E-05	0	
Manganese		0	0	0	0	0	2.57E-04	1.05E-03	2.09E-05	8.94E-03	0	4.26E-03	8.56E-05	0.01	0	
Nickel		0	0	0	0	0	0	0	1.15E-04	0	0	0	0	1.15E-04	0	
Totals	0	0	0	0	0	2.57E-04	1.05E-03	0.104	8.94E-03	0	4.26E-03	8.56E-05	0.12	0		
Worse Case HAP														0.10		

- (1) Limited PTE based on an annual production limit and lb/ton emission limits to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).
- (2) Unrestricted PTE.
- (3) Potential to emit (PTE) after consideration of integral controls.
- (4) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

**Appendix A: Unlimited Emissions Calculation:
Particulate Emissions from
Raw Material Handling, Grain Milling and Manufacture, and Grain Distribution**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrochers

Unit ID	Process		Maximum Instantaneous Process Rate (tons/hr) ¹	Projected Actual Annual Grain handled (tons/yr) ¹	Actual Annual Operating Hours (hrs/yr) ¹	Potential Annual Grain handled (tons/yr) ²	Uncontrolled Emission Factors (lb pollutant / ton grain) ³			Unlimited/Uncontrolled Potential to Emit ⁴						Control Efficiency (%) ⁵				Controlled Potential to Emit								
							PM	PM ₁₀	PM _{2.5}	tons/yr			lb/hr			Enclosure	Baghouse	Cyclone	a	tons/yr								
	PM	PM ₁₀								PM _{2.5}	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀					PM _{2.5}	PM	PM ₁₀	PM _{2.5}	PM	PM ₁₀	PM _{2.5}		
ES-1, ES-2	Truck Receiving Pits #1 & #2	Grain receiving - hopper truck	500	520,000	6240	730,000	0.035	0.0078	0.0013	12.78	2.85	0.47	17.50	3.90	0.65	10.0	99.9	NA	a	1.15E-02	2.56E-03	4.27E-04	1.57E-02	3.51E-03	5.85E-04			
ES-3	Mill Receiving Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	200	520,000	6240	730,000	0.061	0.034	0.0058	22.27	12.41	2.12	12.20	6.80	1.16	NA	99.9	NA	b	2.23E-02	1.24E-02	2.12E-03	1.22E-02	6.80E-03	1.16E-03			
ES-4, ES-5	Hammermills #1 & #2	Hammermills with baghouses	60	312,000	6240	438,000	1.20	1.20	NE	262.80	262.80	262.80	72.00	72.00	72.00	NA	99.9	NA	c	0.26	0.26	0.26	0.07	0.07	0.07			
ES-6	Ground Grain Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	200	312,000	6240	438,000	0.061	0.034	0.0058	13.36	7.45	1.27	12.20	6.80	1.16	NA	99.9	NA	b	1.34E-02	7.45E-03	1.27E-03	1.22E-02	6.80E-03	1.16E-03			
ES-7	Pneumatic Truck Receiving	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	25	26,000	6240	36,500	0.730	0.470	0.4700	13.32	8.58	8.58	18.25	11.75	11.75	NA	99.9	NA	b	1.33E-02	8.58E-03	8.58E-03	1.82E-02	1.17E-02	1.17E-02			
ES-8	Mixed Feed System	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	125	10,000	4160	21,058	0.061	0.034	0.0058	0.64	0.36	0.06	7.63	4.25	0.73	NA	99.9	NA	b	6.42E-04	3.58E-04	6.11E-05	7.62E-03	4.25E-03	7.25E-04			
ES-9	Pellet Cooling #1	Pellet cooler w/ high eff. cyclone	50	5,000	6240	7,019	15.00	7.50	NE	52.64	26.32	26.32	750.00	375.00	375.00	NA	NA	95/90	d	2.63	2.63	2.63	1.13	0.56	0.56			
ES-10	Future	NA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
ES-11	Boiler System #1 **	NA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
ES-12	Future	NA	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---			
ES-13	Finish Feed Load Out ***	Grain shipping - truck	400	520,000	6240	730,000	0.086	0.029	0.0049	31.39	10.59	1.79	34.40	11.60	1.96	10.0	NA	NA	a	28.25	9.53	1.61	30.96	10.44	1.76			
ES-14	Grain Tanks ***	Storage bin (vent)	300	520,000	6240	730,000	0.025	0.0063	0.0011	9.13	2.30	0.40	7.50	1.89	0.33	NA	NA	NA	NA	9.13	2.30	0.40	7.50	1.89	0.33			
ES-15	Micro Ingredients Scales	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	10	1,200	6240	1,685	0.061	0.034	0.0058	0.05	0.03	4.89E-03	0.61	0.34	0.06	NA	NA	NA	NA	0.05	0.03	4.89E-03	0.61	0.34	0.06			
ES-16	Finished Feed Distribution ***	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	50	5,000	6240	7,019	0.061	0.0340	0.0058	0.21	0.12	0.02	3.05	1.70	0.29	NA	NA	NA	NA	0.21	0.12	0.02	3.05	1.70	0.29			
TOTAL										418.59	333.79	303.84	935.33	496.03	465.08								40.60	14.90	4.94	43.38	15.04	3.09

NOTES:
 NA - not applicable
 1) According to WL Portland Systems, Inc., the engineering firm that contracted to design this Animal Feed Mill, the following applies:
 ■ The Maximum Instantaneous Process Rate (tons/hr), Projected Actual Annual Grain Handled (tons/yr), and Actual Annual Operating Hours (hrs/yr) - provided by WL Portland.
 > Truck Receiving Pit #1 (ES-1) has a maximum instantaneous process rate of 200 tons/hr, and Truck Receiving Pit #2 (ES-2) of 300 tons/hr, for a combined rate of 500 tons/hr.
 > Hammermills #1 & #2 each have a maximum instantaneous process rate of 30 tons/hr, for a combined rate of 60 tons/hr.
 > This facility is specifically designed to produce a maximum of 10,000 tons of finished feed per week, or 520,000 tons of finished feed per year, based on the existence of two pellet mills and two boilers. The pelleting operation is the limiting factor for this facility, and acts as an operational bottleneck. Although they are only constructing one pellet mill and one boiler at this time, the source has requested that the maximum design capacity be used to calculate PTE to maximize operational flexibility.
 > 80% of the feed formulation (6,000 tons/yr or 312,000 tons/yr) is whole grain, which is ground prior to pelleting.
 > To form a conservative estimate, it is assumed that the amount of raw materials being received in Truck Pits #1 & #2, and being handled by the Mill Receiving Distribution System, equals the amount of finished feed produced.
 ■ The maximum storage capacity of the storage tanks is 570,000 bushels. This equates to 15,960 tons.
 ■ The source can only convey as much finished feed to the loadout area as it can produce in the pelleting system.
 2) Potential Annual Grain Handled (tons/yr) = (Projected Actual tons/yr) x [(8760 potential hrs/yr) / (Actual hrs/yr)]
 3) Emission factors used in calculating PTE are as follows:
 AP-42, Fifth Edition, Chapter 9.9.1 - Grain Elevators and Processes, Table 9.9.1-1, Particulate Emission Factors for Grain Elevators: ES-1, ES-2, ES-3, ES-6, ES-8, ES-13, ES-14, ES-15
 AP-42, Fifth Edition, Chapter 9.9.1 - Grain Elevators and Processes, Table 9.9.1-2, Particulate Emission Factors for Grain Processing Facilities: ES-4, ES-5, ES-9 [PM10 emissions equal 100% of PM emissions for ES-4, ES-5 and 50% of PM emissions for ES-9]
 => Note: Controlled emission factors have been converted to uncontrolled emission factors for these units, as follows: [Controlled Emission Factor (lb pollutant/ton grain) / (1 - control efficiency/100)], where the control efficiency is assumed 99%.
 AP-42, Fifth Edition, Chapter 11.12 Concrete Batching, Table 11.12-2 - Emission Factors for Concrete Batching, Cement unloading to elevated storage silo (pneumatic) (SCC 3-05-011-07): ES-7.
 => Note: There are no emission factors for the pneumatic loading/unloading of animal feed ingredients, therefore the cement unloading emission factors have been used to form a conservative estimate. In the absence of a PM2.5 emission factor, it is assumed that PM2.5 emissions = PM10 emissions.
 4) Potential hourly emission rates are based on the maximum process rate (tons/hr). However, this hourly, instantaneous process rate cannot be maintained, due to a variety of bottlenecks. Therefore, potential annual emissions are based on a scaled rate.
 Unlimited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Annual Grain handled (tons/yr) * Unlimited Emission Factor (lb pollutant / ton of grain) * (ton/2000 lbs)]
 Unlimited/Uncontrolled Potential to Emit (lbs/hr) = [Maximum Instantaneous Process Rate (tons/hr) * Unlimited Emission Factor (lb pollutant / ton of grain)]
 Controlled Potential to Emit (tons/yr) = [Unlimited/Uncontrolled Potential to Emit (tons/yr) * (1 - control efficiency/100)] Note: the controlled emissions from the Truck Receiving also takes into account an additional 10% control because the activity occurs within an enclosure.
 Controlled Potential to Emit (lbs/hr) = [Unlimited/Uncontrolled Potential to Emit (lbs/hr) * (1 - control efficiency/100)]
 5) Control efficiencies are as follows:
 a) 10% control provided by enclosure and 99.9% control provided by baghouse - neither included in emission factor
 b) 99.9% control provided by baghouse
 c) 99.9% control provided by baghouse. Uncontrolled grain milling emission factors were back calculated assuming a control efficiency of 99% (Uncontrolled EF = Controlled EF / (1 - 0.99)). PM10 and PM2.5 emissions assumed equal to PM emissions.
 d) 95% control for PM (required for compliance with 40 CFR 63, Subpart DDDDDDD), and 90% control for PM10 provided by cyclone. Uncontrolled Pellet Cooling emission factors were back calculated assuming a control efficiency of 99% (Uncontrolled EF = Controlled EF / (1 - 0.99)) to form a conservative estimate. PM10 emissions equal 50% of PM emissions for ES-9, PM2.5 emissions assumed equal to PM10 emissions.
 ** See pages 4 and 5 of this appendix, for these calculations.
 *** The Finished Feed Distribution system is totally enclosed and feeds directly into the Finish Feed Load Out, which is contained within a four (4) sided concrete enclosure having two (2) 12' x 14' openings for truck entrance/exit. Additionally, it is reasonable that bin vent filters could be installed on each of the grain tanks. Therefore, IDEM has determined that particulate emissions from these activities could reasonably be ducted to a control device and are conservatively not fugitive in nature.
 NE - not evaluated; PM_{2.5} emission rates not calculated because emission factors are not available for all processes. Therefore, to form a conservative estimate, it is assumed that PM2.5 emissions are equal PM10 emissions.
 NA - not applicable.

**Appendix A: Unlimited Emissions Calculations
Hazardous Air Pollutant (HAP) Emissions from
Raw Material Handling, Grain Milling and Manufacture, and Grain distribution**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Unit ID	Process		Maximum Manganese in Ingredient (%)	Maximum Manganese in Feed Mix (%)	Control Efficiency (%) ³			Potential Uncontrolled Emission Rates		Potential Controlled Emission Rates ⁴	
	JFS Milling ID	AP-42 Description			Enclosure	Baghouse	Cyclone	tons/yr	lb/hr	tons/yr	lb/hr
ES-1, ES-2 ⁽¹⁾	Truck Receiving Pits #1 & #2	Grain receiving - hopper truck	0%	0%	0%	0%	0%	0	0	0	0
ES-3 ⁽¹⁾	Mill Receiving Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	0%	0%	0%	0%	0%	0	0	0	0
ES-4, ES-5 ⁽¹⁾	Hammermills #1 & #2	Hammermill with baghouse	0%	0%	0%	0%	0%	0	0	0	0
ES-6 ⁽¹⁾	Ground Grain Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	0%	0%	0%	0%	0%	0	0	0	0
ES-7 ⁽¹⁾	Pneumatic Truck Receiving	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	0%	0%	0%	0%	0%	0	0	0	0
ES-8 ⁽²⁾	Mixed Feed System	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	8.30%	0.04%	NA	99.9	b	2.57E-04	3.05E-03	2.57E-07	3.05E-06
ES-9 ⁽²⁾	Pellet Cooling #1	Pellet cooler w/ high eff. cyclone	8.30%	0.04%	95/90	NA	d	0.02	0.30	2.1E-03	0.03
ES-10	Future	NA	0%	0%	0%	0%	0%	0	0	0	0
ES-11 ⁽¹⁾	Boiler System #1	NA	0%	0%	0%	0%	0%	0	0	0	0
ES-12	Future	NA	0%	0%	0%	0%	0%	0	0	0	0
ES-13 ⁽²⁾	Finish Feed Load Out	Grain shipping - truck	8.30%	0.04%	10	99.9	a	1.26E-02	1.38E-02	1.26E-05	1.38E-05
ES-14 ⁽¹⁾	Grain Tanks	Storage bin (vent)	0%	0%	0%	0%	0%	0	0	0	0%
ES-15 ⁽²⁾	Micro Ingredients Scales	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	8.30%	8.30%	NA	NA	NA	4.26E-03	0.05	4.26E-03	0.05
ES-16 ⁽²⁾	Finished Feed Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	8.30%	0.04%	N/A	N/A	N/A	8.56E-05	1.22E-03	8.56E-05	1.22E-03
TOTAL								0.04	0.37	6.47E-03	0.08

NOTES:

NA - not applicable

Note: The Micro Ingredients Scale will handle the actual ingredient containing manganese as it is measured for addition into the feed mix. The downstream processes (i.e., Mixed Feed System, Pellet Cooling #1, Finish Feed Load Out, and Finished Feed Distribution) will contain that ingredient only within a mixture of other ingredients.

- 1) Ingredients containing manganese are not processed through the equipment.
- 2) Calculated as a percentage of the particulate emissions from page 2 of 9 of this Appendix.
- 3) Control efficiencies are as follows:
 - a) 10% control provided by enclosure and 99.9% control provided by baghouse - neither included in emission factor
 - b) 99.9% control provided by baghouse
 - c) 99.9% control provided by baghouse
 - d) 95% control for PM and 90% control for PM10 provided by cyclone
- 4) Metal HAPS, including manganese, are particulate in nature and can be controlled using a control device.

**Appendix A: Unlimited Emissions Calculations
 Criteria Pollutant and Hazardous Air Pollutant (HAP) Emissions
 from Natural Gas Combustion (only)
 MM BTU/HR <100
 for Boiler #1 (identified as ES-11)**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Maximum Heat Input Capacity
 MMBtu/hr
 12.55

Potential Throughput
 MMCF/yr
 109.96

Criteria Pollutant Emissions

Emission Factor in lb/MMCF	Pollutant						
	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
	1.9	7.6	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.10	0.42	0.42	0.03	5.50	0.30	4.62

*PM emission factor is filterable PM only. PM10 & PM2.5 emission factors are filterable and condensable fractions combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

HAPs Emissions

Emission Factor in lb/MMcf	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
	2.10E-03	1.20E-03	0.08	1.80	3.40E-03
Potential Emission in tons/yr	1.15E-04	6.60E-05	4.12E-03	0.099	1.87E-04

Emission Factor in lb/MMcf	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
	5.00E-04	1.10E-03	1.40E-03	3.80E-04	2.10E-03
Potential Emission in tons/yr	2.75E-05	6.05E-05	7.70E-05	2.09E-05	1.15E-04

NOTES

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas

Total HAPs =	0.104	tons/yr
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Worst Single HAP =	0.099	tons/yr
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METHODOLOGY

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
 Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02,
 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98).
 Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

**Appendix A: Unlimited Emissions Calculations
Greenhouse Gas Emissions
from Natural Gas Combustion (only)
MM BTU/HR <100**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Maximum Heat Input Capacity MMBtu/hr	HHV mmBtu mmscf	Potential Throughput MMCF/yr
12.55	1000	109.96

	Greenhouse Gases (GHGs)		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120,000	2.3	2.2
Potential Emission in tons/yr	6,597.86	0.126	0.121
Summed Potential Emissions in tons/yr	6,598.10		
CO2e Total in tons/yr	6,638.01		

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.

Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

**Appendix A: Emission Calculations
Fugitive Dust Emissions - Paved Roads**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Paved Roads at Industrial Site

The following calculations determine the amount of emissions created by paved roads, based on 8,760 hours of use and AP-42, Ch 13.2.1 (1/2011).

Vehicle Information (provided by source)

Type	Maximum trips per day (trip/day)	Maximum Weight Loaded (tons/trip)	Total Weight driven per day (ton/day)	Maximum one-way distance (feet/trip)	Maximum one-way distance (mi/trip)	Maximum one-way miles (miles/day)	Maximum one-way miles (miles/yr)
Truck (entering plant) (one-way trip)	134.0	40.0	5,360.0	1,600.0	0.30	40.61	14,821.2
Truck (leaving plant) (one-way trip)	134.0	15.0	2,010.0	1,600.0	0.30	40.61	14,821.2
Car (entering plant) (one-way trip)	30.0	2.5	75.0	1,400.0	0.27	7.95	2,903.4
Car (leaving plant) (one-way trip)	30.0	2.0	60.0	1,400.0	0.27	7.95	2,903.4
Totals			328.0			7,505.0	35,449.2

Average Vehicle Weight Per Trip = $\frac{22.9}{0.30}$ tons/trip
Average Miles Per Trip = 0.30 miles/trip

Unmitigated Emission Factor, Ef = $[k * (sL)^{0.91} * (W)^{1.02}]$ (Equation 1 from AP-42 13.2.1)

	PM	PM10	PM2.5	
where k =	0.011	0.0022	0.00054	lb/VMT = particle size multiplier (AP-42 Table 13.2.1-1)
W =	22.9	22.9	22.9	tons = average vehicle weight (provided by source)
sL =	1.1	1.1	1.1	g/m ² = Silt loading (sL) from AP-42, Table 13.2.1-3 (mean; corn wet mills).

Taking natural mitigation due to precipitation into consideration, Mitigated Emission Factor, Eext = $E * [1 - (p/4N)]$ (Equation 2 from AP-42 13.2.1)

Mitigated Emission Factor, Eext = $Ef * [1 - (p/4N)]$
where p = $\frac{125}{365}$ days of rain greater than or equal to 0.01 inches (see Fig. 13.2.1-2)
N = 365 days per year

	PM	PM10	PM2.5	
Unmitigated Emission Factor, Ef =	0.292	0.058	0.0143	lb/mile
Mitigated Emission Factor, Eext =	0.267	0.053	0.0131	lb/mile

Process	Unmitigated PTE of PM (tons/yr)	Unmitigated PTE of PM10 (tons/yr)	Unmitigated PTE of PM2.5 (tons/yr)	Mitigated PTE of PM (tons/yr)	Mitigated PTE of PM10 (tons/yr)	Mitigated PTE of PM2.5 (tons/yr)
Truck (entering plant) (one-way trip)	2.17	0.43	0.11	1.98	0.40	0.10
Truck (leaving plant) (one-way trip)	2.17	0.43	0.11	1.98	0.40	0.10
Car (entering plant) (one-way trip)	0.42	0.08	0.02	0.39	0.08	0.02
Car (leaving plant) (one-way trip)	0.42	0.08	0.02	0.39	0.08	0.02
Totals	5.18	1.04	0.25	4.74	0.95	0.23

Methodology

Maximum one-way distance (feet/trip) = Maximum distance per round trip (feet/round trip) / 2
 Total Weight driven per day (ton/day) = [Maximum Weight Loaded (tons/trip)] * [Maximum trips per day (trip/day)]
 Maximum one-way distance (mi/trip) = [Maximum one-way distance (feet/trip)] / [5280 ft/mile]
 Maximum one-way miles (miles/day) = [Maximum trips per year (trip/day)] * [Maximum one-way distance (mi/trip)]
 Average Vehicle Weight Per Trip (ton/trip) = SUM[Total Weight driven per day (ton/day)] / SUM[Maximum trips per day (trip/day)]
 Average Miles Per Trip (miles/trip) = SUM[Maximum one-way miles (miles/day)] / SUM[Maximum trips per year (trip/day)]
 Unmitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Unmitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
 Mitigated PTE (tons/yr) = [Maximum one-way miles (miles/yr)] * [Mitigated Emission Factor (lb/mile)] * (ton/2000 lbs)
 Controlled PTE (tons/yr) = [Mitigated PTE (tons/yr)] * [1 - Dust Control Efficiency]

Abbreviations

PM = Particulate Matter PM2.5 = Particle Matter (<2.5 um)
PM10 = Particulate Matter (<10 um) PTE = Potential to Emit

**Appendix A: Limited Emissions Calculations
Particulate Emissions from
Raw Material Handling, Grain Milling and Manufacture, and Grain distribution**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Unit ID	Process		Annual Throughput Limitations (tons/yr) ^{1,2}	Limited Emission Rates			Control Efficiency (%)	Limited/Uncontrolled Potential to Emit ⁴		
				(lb pollutant / ton grain) ³				tons/yr		
	JFS Milling ID	AP-42 Description		PM	PM ₁₀	PM _{2.5}		PM	PM ₁₀	PM _{2.5}
ES-1, ES-2	Truck Receiving Pits #1 & #2 ^{α,ε}	Grain receiving - hopper truck	520,000	0.035	0.0078	0.0013	NA	9.10	2.03	0.34
ES-3	Mill Receiving Distribution ^{α,ε}	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	520,000	0.061	0.034	0.0058	NA	15.86	8.84	1.51
ES-4, ES-5	Hammermills #1 & #2 ^{β,δ}	Hammermills with baghouse	312,000	1.064	0.390	0.531	NA	165.98	60.84	82.84
ES-6	Ground Grain Distribution ^{β,ε}	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	312,000	0.061	0.034	0.0058	NA	9.52	5.30	0.90
ES-7	Pneumatic Truck Receiving ^{χ,ε}	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	36,500	0.730	0.470	0.4700	NA	13.32	8.58	8.58
ES-8	Mixed Feed System ^{χ,ε}	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	21,058	0.061	0.034	0.0058	NA	0.64	0.36	0.06
ES-9	Pellet Cooling #1 ^{φ,δ,3}	Pellet cooler w/ high eff. cyclone	7,019	15.00	7.50	NE	95/90	2.63	2.63	2.63
ES-13	Finish Feed Load Out ^{α,ε}	Grain shipping - truck	520,000	0.086	0.029	0.0049	NA	22.36	7.54	1.27
ES-14	Grain Tanks ^{χ,ε}	Storage bin (vent)	730,000	0.025	0.0063	0.0011	NA	9.13	2.30	0.40
ES-15	Micro Ingredients Scales ^{χ,ε}	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	1,685	0.061	0.034	0.0058	NA	0.05	0.03	4.89E-03
ES-16	Finished Feed Distribution ^{χ,ε}	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	7,019	0.061	0.034	0.0058	NA	0.21	0.12	0.02
TOTAL								248.81	98.57	98.56

NOTES:

- 1) Annual Throughput Limitations (tons/yr) are as follows:
 - α JFS Milling, Inc. has accepted the facility's maximum design capacity as an annual production limitation on "Truck Receiving Pits #1 & #2", the "Mill Receiving Distribution", and the "Finished Feed Loadout", each.
 - β The Hammermills (#1 & #2) and the Ground Grain Distribution are limited to 312,000 tons/yr (60% of the feed formulation), each.
 - χ Maximum potential throughput was used to calculate emissions from these units. No limit is needed.
 - 2) Emission Limitations are as follows:
 - δ Pound per ton (lb/ton) emission limitations to comply with 326 IAC 2-2 (PSD) and 326 IAC 2-8 (FESOP).
 - ε Uncontrolled/unlimited Emission factors from AP-42, Fifth Edition, Chapter 9.9.1 - Grain Elevators and Processes, AP-42, Fifth Edition, Table 9.9.1-1, Particulate Emission Factors for Grain Elevators.
 - φ AP-42, Fifth Edition, Chapter 9.9.1 - Grain Elevators and Processes, Table 9.9.1-2, Particulate Emission Factors for Grain Processing Facilities: ES-4, ES-5, ES-9 [PM10 emissions equal 50% of PM emissions for ES-9, and PM2.5 emissions are assumed equal to PM10 emissions]
 - => Note: Controlled emission factors have been converted to uncontrolled emission factors for these units, as follows: [Controlled Emission Factor (lb pollutant/ton grain) / (1 - control efficiency/100)], where the control efficiency is assumed 99%.
 - 3) PTE after consideration of integral control device. Control efficiencies for the integral cyclone serving the Pellet cooling system are 95% control for PM (required for compliance with 40 CFR 63, Subpart DDDDDDD), and 90% control for PM10.
 - 4) Limited/Uncontrolled Potential to Emit (tons/yr) = [Maximum Annual Grain handled (tons/yr) * Unlimited Emission Factor (lb pollutant / ton of grain) * (ton/2000 lbs)]
- NA - not applicable.

**Appendix A: Limited Emissions Calculations
Hazardous Air Pollutant (HAP) Emissions from
Raw Material Handling, Grain Milling and Manufacture, and Grain distribution**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

Unit ID	Process		Maximum Manganese in Ingredient (%)	Maximum Manganese in Feed Mix (%)	Limited Emission Rates tons/yr
	JFS Milling ID	AP-42 Description			
ES-1, ES-2 ⁽¹⁾	Truck Receiving Pits #1 & #2	Grain receiving - hopper truck	0%	0%	0
ES-3 ⁽¹⁾	Mill Receiving Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	0%	0%	0
ES-4, ES-5 ⁽¹⁾	Hammermills #1 & #2	Hammermills with baghouses	0%	0%	0
ES-6 ⁽¹⁾	Ground Grain Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	0%	0%	0
ES-7 ⁽¹⁾	Pneumatic Truck Receiving	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	0%	0%	0
ES-8 ⁽²⁾	Mixed Feed System	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	8.30%	0.04%	2.57E-04
ES-9 ⁽²⁾	Pellet Cooling #1	Pellet cooler w/ high eff. cyclone	8.30%	0.04%	1.05E-03
ES-13 ⁽²⁾	Finish Feed Load Out	Grain shipping - truck	8.30%	0.04%	8.94E-03
ES-14 ⁽¹⁾	Grain Tanks	Storage bin (vent)	0%	0%	0
ES-15 ⁽²⁾	Micro Ingredients Scales	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	8.30%	8.30%	4.26E-03
ES-16 ⁽²⁾	Finished Feed Distribution	Headhouse and internal handling (legs, belts, distributor, scale, etc.)	8.30%	0.04%	8.56E-05
				TOTAL	1.46E-02

NOTES:

Note: The Micro Ingredients Scale will handle the actual ingredient containing manganese as it is measured for addition into the feed mix. The downstream processes (i.e., Mixed Feed System, Pellet Cooling #1, Finish Feed Load Out, and Finished Feed Distribution) will contain that ingredient only within a mixture of other ingredients.

- 1) Ingredients containing manganese are not processed through the equipment.
- 2) Calculated as a percentage of the particulate emissions from page 7 of 9 of this Appendix.

**Appendix A: Emissions Calculations
Particulate Emission Limitations
for Manufacturing Processes
326 IAC 6-3-2(e)(3)**

Company Name: JFS Milling, Inc.
Address City IN Zip: 5167 North State Road 67, Bruceville, IN 47516
Permit No.: F083-32071-00058
Reviewer: Hannah L. Desrosiers

The 326 IAC 6-3 allowable particulate emission rate limitations are based on the following equations:

- (a) Interpolation of the data for the process weight rate up to sixty thousand (60,000) pounds (or 30 tons) per hour shall be accomplished by use of the equation:

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

JFS Milling ID	Unit ID	Maximum Instantaneous Process Rate (tons/hr)	Allowable PM Emissions (lbs/hr)	<i>each</i>
Hammermills #1 & #2	ES-4, ES-5	30	40.04	
Pneumatic Truck Receiving	ES-7	25	35.43	
Micro Ingredients Scales	ES-15	10	19.18	

- (b) Interpolation and extrapolation of the data for the process weight rate in excess of sixty thousand (60,000) pounds (or 30 tons) per hour shall be accomplished by use of the equation:

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

JFS Milling ID	Unit ID	Maximum Instantaneous Process Rate (tons/hr)	Allowable PM Emissions (lbs/hr)
Truck Receiving Pit #1	ES-1	200	58.51
Truck Receiving Pit #2	ES-2	300	63.00
Mill Receiving Distribution	ES-3	200	58.51
Ground Grain Distribution	ES-6	200	58.51
Mixed Feed System	ES-8	125	53.55
Pellet Cooling #1	ES-9	50	44.58
Finish Feed Load Out ***	ES-13	400	66.31
Grain Tanks ***	ES-14	300	63.00
Finished Feed Distribution ***	ES-16	50	44.58

Methodology

Process weight; weight rate (P): Total weight of all materials introduced into any source operation. (326 IAC 1-2-59(a)).



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

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

TO: Brian Hawkins
JFS Milling, Inc.
PO Box 480
Huntingburg, IN 47542-0480

DATE: December 19, 2012

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

SUBJECT: Final Decision
FESOP
083-32071-00058

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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December 19, 2012

TO: Bickenell Vigo Twp Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: JFS Milling, Inc.
Permit Number: 083-32071-00058

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	CDENNY 12/19/2012 JFS Milling, Inc. 083-32071-00058 (final)		Type of Mail: CERTIFICATE OF MAILING ONLY	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204		

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		Brian Hawkins JFS Milling, Inc. PO Box 480 Huntingburg IN 47542-0480 (Source CAATS)										
2		Bickenell Vigo Twp Public Library 201 W 2nd St Bicknell IN 47512-2299 (Library)										
3		Mr. Wendell Hibdon Plumbers & Steam Fitters Union, Local 136 2300 St. Joe Industrial Park Dr Evansville IN 47720 (Affected Party)										
4		Knox County Health Department 520 S. 7th Street Vincennes IN 47591-1038 (Health Department)										
5		Knox Co Public Library 502 N 7th St Vincennes IN 47591-2101 (Library)										
6		Knox County Commissioners 111 Washington Ave Vincennes IN 47591 (Local Official)										
7		Bruceville Town Council PO Box 247 Bruceville IN 46516 (Local Official)										
8		Mr. Mark Wilson Evansville Courier & Press P.O. Box 268 Evansville IN 47702-0268 (Affected Party)										
9		Mr. John Blair 800 Adams Ave Evansville IN 47713 (Affected Party)										
10		Ashley Sapyta S & ME, Inc. 301 Zima Park Drive Spartanburg SC 29301 (Consultant)										
11		Steve Kiaser 6041 N State Road 550 Bruceville IN 47516 (Affected Party)										
12		Barney Robinson 6991 E Red Road Bruceville IN 47516 (Affected Party)										
13		Sherry Stephens 114 N Cross Street Bruceville IN 47516 (Affected Party)										
14		Charlie Bobe 1413 Kimmel Road Vincennes IN 47591 (Affected Party)										
15		Joseph Steffy 5115 N State Road Bruceville IN 47516 (Affected Party)										

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2		Agnes Kolehouse 1462 South 6th Street Vincennes IN 47591 (Affected Party)										
3		Murrell Peacock PO Box 53 Bruceville IN 47516 (Affected Party)										
4		Fred Weber PO Box 95 Bruceville IN 47516 (Affected Party)										
5		Michael P Morris 135 North 8th Street Vincennes IN 47591 (Affected Party)										
6		Larry Cardinal Volunteer Fire Department 5404 North State Road 67 Bruceville IN 47516 (Affected Party)										
7												
8												
9												
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