



# 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  
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Toll Free (800) 451-6027  
[www.idem.IN.gov](http://www.idem.IN.gov)

TO: Interested Parties / Applicant

DATE: October 29, 2009

RE: Archer Daniel Midland Company / 023-26991-00011

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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## Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Archer Daniel Midland Company  
2191 West County Road 0 N/S  
Frankfort, Indiana 46041**

(herein known as the Permittee) is hereby authorized to 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. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. 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 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: T023-26991-00011	
Issued by:  Donald F. Robin, P.E., Section Chief Permits Branch Office of Air Quality	Issuance Date: October 29, 2009 Expiration Date: October 29, 2014

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## SECTION A SOURCE SUMMARY

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

### A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(15)][326 IAC 2-7-1(22)]

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The Permittee owns and operates a stationary soybean processing and oil refining operation.

Source Address:	2191 West County Road 0 N/S, Frankfort, Indiana 46041
Mailing Address:	P.O. Box 249, Frankfort, IN 46041
General Source Phone Number:	765-654-3091
SIC Code:	2075
County Location:	Clinton
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major 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 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

- (a) One (1) rail unloading operation, identified as EU01, constructed in 1946 and modified in 2004, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01), including the following:
  - (1) Two (2) discharge drag conveyors (S-1 and S-1A);
- (b) One (1) truck unloading operation, identified as EU02, constructed in 1946, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (c) Two (2) elevator legs (S-3 and S-4), identified as EU03, constructed in 1946, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (d) One (1) drag conveyor to grain storage (S-5), identified as EU04, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (e) Concrete storage silos, identified as EU05, constructed in 1946, with a maximum throughput of 1,444,500 tons per year;
- (f) Two (2) steel storage tank vents, identified as EU06, constructed in 1965, with a maximum throughput of 120,000 tons per year and each steel storage tank vent exhausting through two (2) exhaust fans (per tank) to the atmosphere;
- (g) Two (2) conveyors from grain storage (S-6 and S-7), identified as EU07, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons

- per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (h) Two (2) column grain dryers, identified as EU08, both constructed in 1978 with a maximum throughput of 1,314,000 tons per year;
  - (i) One (1) grain cleaner (P-120), identified as EU09, constructed in June of 1990 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
  - (j) One (1) E/W bean dryer, identified as EU10, constructed in February of 1986, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
  - (k) Cracking rolls, identified as EU11, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year;
  - (l) One (1) hull separator system, identified as EU12, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
  - (m) One (1) conditioner, identified as EU13, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
  - (n) One (1) flaking operation, identified as EU14, constructed in June of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-07) and exhausting to one (1) stack (EP05);
  - (o) One (1) secondary hull screening operation, identified as EU16, constructed in August of 1994 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one baghouse (CE-05) and three (3) cyclones (CE-19, CE-19A and CE-19B) in parallel and exhausting to one (1) stack (EP03);
  - (p) Two (2) hull grinders (H-250 and H-251), identified as EU17, constructed in June of 1989 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-20) and one (1) baghouse (CE-20A) in series and exhausting to one (1) stack (EP20);
  - (q) Two (2) hull storage bins, identified as EU18, constructed in 1946, with a maximum throughput of 91,980 tons per year;
  - (r) One (1) hull conveyor, identified as EU19, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year;
  - (s) One (1) pellet mill, identified as EU20, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-08) and exhausting to one (1) stack (EP07);
  - (t) One (1) pellet cooler, identified as EU21, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-08) and exhausting to one (1) stack (EP07);

- (u) One (1) pellet storage unit, identified as EU22, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (v) One (1) dryer deck, DTDC - Deck #1, identified as EU23, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-09) and exhausting to one (1) stack (EP08A);
- (w) Two (2) DTDC dryer decks:
  - (1) DTDC - Deck #2, identified as EU24, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-10) and exhausting to one (1) stack (EP08A);
  - (2) DTDC - Deck #3, identified as EU24A, approved for construction in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-10A) and exhausting to one (1) stack (EP09A);
- (x) One (1) DTDC - cooler deck, identified as EU25, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-11) and exhausting to one (1) stack (EP10);
- (y) One (1) meal conveyor (from DTDC to meal screens) (P-152), identified as EU26, constructed in June of 1991 and approved for reconstruction in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (z) One (1) meal sifting operation, identified as EU27, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year;
- (aa) One (1) meal grinding operation, identified as EU28, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (bb) One (1) meal storage elevator leg (P-512), identified as EU29, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (cc) One (1) meal storage unit (two tanks), identified as EU30, constructed in 1958 and approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by two (2) bin vent filters (BH-30A and BH-30B), one on each tank and each filter exhausting to individual stacks (EP30A and EP30B);
- (dd) Two (2) meal surge tanks, identified as EU31, constructed in 1986 and approved for approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, a portion of emissions controlled for particulate matter by one (1) bin vent filter (BH-31) and exhausting to one (1) stack (EP31);
- (ee) One (1) hull surge tank, identified as EU32, constructed in 1986, with a maximum throughput of 91,980 tons per year, a portion of emissions controlled for particulate matter by one (1) bin vent filter (BH-31) and exhausting to one (1) stack (EP31);

- (ff) One (1) enclosed mixing conveyor, identified as EU33, constructed in 1988, with a maximum throughput of 1,143,180 tons per year, conveying to the truck and rail meal and hull pellet loadout operations;
- (gg) One (1) truck meal, hull and hull pellet loadout operation, identified as EU34, constructed in 1988, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (ML-1) and exhausting to one (1) stack (EP12);
- (hh) One (1) rail meal, hull and hull pellet loadout operation, identified as EU35, constructed in 1988, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (ML-1) and exhausting to one (1) stack (EP12);
- (ii) One (1) meal clay storage unit, identified as EU36, constructed in 1986, with a maximum throughput of 6,570 tons per year, controlled for particulate matter by one (1) baghouse (MC-1) and exhausting to one (1) stack (EP13);
- (jj) One (1) refinery clay storage unit, identified as EU37, constructed in 1992, with a maximum throughput of 4,500 tons per year, controlled for particulate matter by one (1) baghouse (RCB) and exhausting to one (1) stack (EP14);
- (kk) One (1) oil extraction process using hexane solvent, identified as EU38, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year and emissions released through a number of exit streams in the process collectively called the "hexane bubble". The process is equipped with one (1) mineral oil absorber/scrubber (CE-22), which exhausts through one (1) stack (EP25). This process is also equipped with a once-through cold water condenser located between the vent condenser and the mineral oil absorber/scrubber;
- (ll) One (1) bean cleaner (D-3), identified as EU43, constructed in 1998, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (CE-21) and exhausting to one (1) stack (EP24);
- (mm) One (1) vertical seed conditioner, also referred to as a steam-heated soybean heater, identified as EU44, approved for construction in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-44) and exhausting to one (1) stack (EP44);
- (nn) Boiler #1, identified as EU39, constructed in 1960, with a rated capacity of 62.5 MMBtu per hour and firing natural gas, vegetable oil, No. 2 distillate fuel oil, or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP15);
- (oo) Boiler #3, identified as EU41, constructed in 1992, with a rated capacity of 82.5 MMBtu per hour and firing natural gas, vegetable oil, No. 2 distillate fuel oil, or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP17);
- (pp) One (1) Refinery Boiler, identified as EU42, constructed in 2000, with a rated capacity of 13 MMBtu per hour and firing natural gas or No. 2 distillate fuel oil, exhausting to one (1) stack (EP18);
- (qq) Boiler #4, identified as EU46, approved for construction in 2008, with a rated capacity of 145 MMBtu per hour firing natural gas and 140 MMBtu firing vegetable oil, No. 2 distillate fuel oil or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP46);
- (rr) Approved in 2008 to stockpile soybean meal in railcars during plant shutdowns at a limited throughput of 100,000 tons/year utilizing existing grain receiving/unloading pits EU01 and EU02, elevator leg EU03, conveyor EU28A, storage tanks EU30, surge tanks EU31, mixing conveyor EU33 and rail and truck meal loadout EU34 and EU35;

A.3 Specifically Regulated Insignificant Activities  
[326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(15)]

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

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6: One (1) parts washer, constructed after 1990. [326 IAC 8-3-2][326 IAC 8-3-5]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment. [326 IAC 6-3-2]
- (c) The following activities with emissions equal to or less than insignificant thresholds:
  - (1) One (1) cooling tower (CT#7), identified as EU45, with a design recirculation rate of 1,500 gal/min. [326 IAC 2-2]
  - (2) One (1) silica clay storage silo, identified as EU47, constructed in 2002, with a maximum throughput of 450 tons per year, particulate emissions controlled by a baghouse (RC-2) and exhausting through one (1) stack (EP19). [326 IAC 6-3-2][326 IAC 2-2]
  - (3) Six (6) Cooling Towers (CT#1 thru CT#6), identified as EU48, constructed from 1985 through 1996, three (3) with a design recirculation rate of 2315 gal/min, one (1) with a design recirculation rate of 1925 gal/min and two (2) with a design recirculation rates 1500 gal/min. [326 IAC 2-2]
  - (4) One (1) fire pump with a 230 horsepower engine, identified as EU49, constructed in 1985. [326 IAC 2-2]

A.4 Part 70 Permit Applicability [326 IAC 2-7-2]

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

## SECTION B GENERAL CONDITIONS

### B.1 Definitions [326 IAC 2-7-1]

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

### B.2 Permit Term [326 IAC 2-7-5(2)][326 IAC 2-1.1-9.5][326 IAC 2-7-4(a)(1)(D)][IC 13-15-3-6(a)]

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- (a) This permit, T023-26991-00011, 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, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

### B.3 Term of Conditions [326 IAC 2-1.1-9.5]

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

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

### B.4 Enforceability [326 IAC 2-7-7] [IC 13-17-12]

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

### B.5 Severability [326 IAC 2-7-5(5)]

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

### B.6 Property Rights or Exclusive Privilege [326 IAC 2-7-5(6)(D)]

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

### B.7 Duty to Provide Information [326 IAC 2-7-5(6)(E)]

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- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). 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.8 Certification [326 IAC 2-7-4(f)][326 IAC 2-7-6(1)][326 IAC 2-7-5(3)(C)]**

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- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

**B.9 Annual Compliance Certification [326 IAC 2-7-6(5)]**

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- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than July 1 of each year to:

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

and

United States Environmental Protection Agency, Region V  
Air and Radiation Division, Air Enforcement Branch - Indiana (AE-17J)  
77 West Jackson Boulevard  
Chicago, Illinois 60604-3590

- (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 2-7-5(3); and
  - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAQ may require to determine the compliance status of the source.

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

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(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The PMP extension notification does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.11 Emergency Provisions [326 IAC 2-7-16]

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- (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.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describe the following:
  - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
  - (2) The permitted facility was at the time being properly operated;
  - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
  - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or  
Telephone Number: 317-233-0178 (ask for Compliance and Enforcement Branch)  
Facsimile Number: 317-233-6865

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

Indiana Department of Environmental Management  
Compliance 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 2-7-5(3)(C)(ii) and must contain the following:

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

The notification which shall be submitted by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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 2-7-4(c)(9) 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 2-7 and any other applicable rules.
- (g) 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.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

**B.12 Permit Shield [326 IAC 2-7-15][326 IAC 2-7-20][326 IAC 2-7-12]**

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that

other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced 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 Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

This permit shield does not extend to applicable requirements which are promulgated after the date of issuance of this permit unless this permit has been modified to reflect such new requirements.

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.
- (c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.
- (d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:
  - (1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;
  - (2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;
  - (3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and
  - (4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.
- (e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).
- (f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]
- (g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5][326 IAC 2-7-10.5]

- (a) All terms and conditions of permits established prior to T023-26991-00011 and issued pursuant to permitting programs approved into the state implementation plan have been either:
  - (1) incorporated as originally stated,
  - (2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

**B.14 Termination of Right to Operate [326 IAC 2-7-10][326 IAC 2-7-4(a)]**

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The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-7-3 and 326 IAC 2-7-4(a).

**B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]**

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(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported 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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]**

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(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 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 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

(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 2-7-9(a)(3)]

(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 2-7-9(b)]

- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(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 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (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 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

**B.19 Permit Revision Under Economic Incentives and Other Programs**  
[326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

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- (a) No Part 70 permit revision shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.
- (b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

**B.20 Operational Flexibility** [326 IAC 2-7-20][326 IAC 2-7-10.5]

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- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b),(c), or (e) 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 preconstruction approval required by 326 IAC 2-7-10.5 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 2-7-20(b),(c), or (e). 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 2-7-20(b)(1), (c)(1), and (e)(2).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
- (1) A brief description of the change within the source;
  - (2) The date on which the change will occur;
  - (3) Any change in emissions; and
  - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]  
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]  
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) 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 2-7-10.5]**

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

**B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]**

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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 Part 70 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 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 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 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 2-7-11]

- (a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

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

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

B.24 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), 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 2-7-5(3)][326 IAC 2-7-6][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 2-7-5(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 Opacity [326 IAC 5-1]

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

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

#### C.3 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.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

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

#### C.5 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.6 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 by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

#### C.7 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
  - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
  - (2) If there is a change in the following:
    - (A) Asbestos removal or demolition start date;
    - (B) Removal or demolition contractor; or
    - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management  
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 by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (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. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

### **Testing Requirements [326 IAC 2-7-6(1)]**

#### **C.8 Performance Testing [326 IAC 3-6]**

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- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.9 Compliance Requirements [326 IAC 2-1.1-11]**

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

### **Compliance Monitoring Requirements [326 IAC 2-7-5(1)][326 IAC 2-7-6(1)]**

#### **C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]**

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

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

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

The notification which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

**C.11 Maintenance of Continuous Emission Monitoring Equipment [326 IAC 2-7-5(3)(A)(iii)]**

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- (a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous emission monitoring systems (CEMS) and related equipment.
- (b) In the event that a breakdown of a continuous emission monitoring system occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (c) Whenever a continuous emission monitor other than an opacity monitor is malfunctioning or will be down for calibration, maintenance, or repairs for a period of four (4) hours or more, supplemental or intermittent monitoring of the parameter shall be implemented as specified in Section D.2 of this permit until such time as the primary continuous emission monitoring system is back in operation.
- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 326 IAC 2-2 (PSD).

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

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

**C.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-7-5(3)] [326 IAC 2-7-6(1)]**

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- (a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.
- (b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

**Corrective Actions and Response Steps [326 IAC 2-7-5][326 IAC 2-7-6]**

**C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]**

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

- (a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on May 17, 2002.
- (b) 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.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]**

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

C.16 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

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

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

The response action documents submitted pursuant to this condition do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### **C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]**

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- (a) Pursuant to 326 IAC 2-6-3(a)(1), the Permittee shall submit by July 1 of each year an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
  - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

Indiana Department of Environmental Management  
Technical Support and Modeling Section, Office of Air Quality  
100 North Senate Avenue  
MC 61-50 IGCN 1003  
Indianapolis, Indiana 46204-2251

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) The emission statement 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.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2]**

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- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance or ninety (90) days of initial start-up, whichever is later.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
  - (A) A description of the project.
  - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
  - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
    - (i) Baseline actual emissions;
    - (ii) Projected actual emissions;
    - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
    - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
  - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
  - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
  - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
  - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
  - (1) The name, address, and telephone number of the major stationary source.
  - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
  - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
  - (4) Any other information that the Permittee deems fit to include in this report.

Reports required in this part 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

- (h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

## **Stratospheric Ozone Protection**

### **C.21 Compliance with 40 CFR 82 and 326 IAC 22-1**

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

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

**SECTION D.1 FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:**

- (a) One (1) rail unloading operation, identified as EU01, constructed in 1946 and modified in 2004, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01), including the following:
  - (1) Two (2) discharge drag conveyors (S-1 and S-1A);
- (b) One (1) truck unloading operation, identified as EU02, constructed in 1946, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (c) Two (2) elevator legs (S-3 and S-4), identified as EU03, constructed in 1946, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (d) One (1) drag conveyor to grain storage (S-5), identified as EU04, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (e) Concrete storage silos, identified as EU05, constructed in 1946, with a maximum throughput of 1,444,500 tons per year;
- (f) Two (2) steel storage tank vents, identified as EU06, constructed in 1965, with a maximum throughput of 120,000 tons per year and each steel storage tank vent exhausting through two (2) exhaust fans (per tank) to the atmosphere;
- (g) Two (2) conveyors from grain storage (S-6 and S-7), identified as EU07, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (h) Two (2) column grain dryers, identified as EU08, both constructed in 1978 with a maximum throughput of 1,314,000 tons per year;
- (i) One (1) grain cleaner (P-120), identified as EU09, constructed in June of 1990 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (j) One (1) E/W bean dryer, identified as EU10, constructed in February of 1986, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
- (k) Cracking rolls, identified as EU11, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year;
- (l) One (1) hull separator system, identified as EU12, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
- (m) One (1) conditioner, identified as EU13, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);

- (n) One (1) flaking operation, identified as EU14, constructed in June of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-07) and exhausting to one (1) stack (EP05);
- (o) One (1) secondary hull screening operation, identified as EU16, constructed in August of 1994 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one baghouse (CE-05) and three (3) cyclones (CE-19, CE-19A and CE-19B) in parallel and exhausting to one (1) stack (EP03);
- (p) Two (2) hull grinders (H-250 and H-251), identified as EU17, constructed in June of 1989 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-20) and one (1) baghouse (CE-20A) in series and exhausting to one (1) stack (EP20);
- (q) Two (2) hull storage bins, identified as EU18, constructed in 1946, with a maximum throughput of 91,980 tons per year;
- (r) One (1) hull conveyor, identified as EU19, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year;
- (s) One (1) pellet mill, identified as EU20, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-08) and exhausting to one (1) stack (EP07);
- (t) One (1) pellet cooler, identified as EU21, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-08) and exhausting to one (1) stack (EP07);
- (u) One (1) pellet storage unit, identified as EU22, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (v) One (1) dryer deck, DTDC - Deck #1, identified as EU23, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-09) and exhausting to one (1) stack (EP08A);
- (w) Two (2) DTDC dryer decks:
  - (1) DTDC - Deck #2, identified as EU24, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-10) and exhausting to one (1) stack (EP08A);
  - (2) DTDC - Deck #3, identified as EU24A, approved for construction in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-10A) and exhausting to one (1) stack (EP09A);
- (x) One (1) DTDC - cooler deck, identified as EU25, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-11) and exhausting to one (1) stack (EP10);
- (y) One (1) meal conveyor (from DTDC to meal screens) (P-152), identified as EU26, constructed in June of 1991 and approved for reconstruction in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);

- (z) One (1) meal sifting operation, identified as EU27, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year;
- (aa) One (1) meal grinding operation, identified as EU28, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (bb) One (1) meal storage elevator leg (P-512), identified as EU29, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (cc) One (1) meal storage unit (two tanks), identified as EU30, constructed in 1958 and approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by two (2) bin vent filters (BH-30A and BH-30B), one on each tank and each filter exhausting to individual stacks (EP30A and EP30B);
- (dd) Two (2) meal surge tanks, identified as EU31, constructed in 1986 and approved for approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, a portion of emissions controlled for particulate matter by one (1) bin vent filter (BH-31) and exhausting to one (1) stack (EP31);
- (ee) One (1) hull surge tank, identified as EU32, constructed in 1986, with a maximum throughput of 91,980 tons per year, a portion of emissions controlled for particulate matter by one (1) bin vent filter (BH-31) and exhausting to one (1) stack (EP31);
- (ff) One (1) enclosed mixing conveyor, identified as EU33, constructed in 1988, with a maximum throughput of 1,143,180 tons per year, conveying to the truck and rail meal and hull pellet loadout operations;
- (gg) One (1) truck meal, hull and hull pellet loadout operation, identified as EU34, constructed in 1988, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (ML-1) and exhausting to one (1) stack (EP12);
- (hh) One (1) rail meal, hull and hull pellet loadout operation, identified as EU35, constructed in 1988, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (ML-1) and exhausting to one (1) stack (EP12);
- (ii) One (1) meal clay storage unit, identified as EU36, constructed in 1986, with a maximum throughput of 6,570 tons per year, controlled for particulate matter by one (1) baghouse (MC-1) and exhausting to one (1) stack (EP13);
- (jj) One (1) refinery clay storage unit, identified as EU37, constructed in 1992, with a maximum throughput of 4,500 tons per year, controlled for particulate matter by one (1) baghouse (RCB) and exhausting to one (1) stack (EP14);
- (kk) One (1) oil extraction process using hexane solvent, identified as EU38, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year and emissions released through a number of exit streams in the process collectively called the "hexane bubble". The process is equipped with one (1) mineral oil absorber/scrubber (CE-22), which exhausts through one (1) stack (EP25). This process is also equipped with a once-through cold water condenser located between the vent condenser and the mineral oil absorber/scrubber;
- (ll) One (1) bean cleaner (D-3), identified as EU43, constructed in 1998, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (CE-21) and exhausting to one (1) stack (EP24);

- (mm) One (1) vertical seed conditioner, also referred to as a steam-heated soybean heater, identified as EU44, approved for construction in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-44) and exhausting to one (1) stack (EP44);
- (rr) Approved in 2008 to stockpile soybean meal in railcars during plant shutdowns at a limited throughput of 100,000 tons/year utilizing existing grain receiving/unloading pits EU01 and EU02, elevator leg EU03, conveyor EU28A, storage tanks EU30, surge tanks EU31, mixing conveyor EU33 and rail and truck meal loadout EU34 and EU35;
- (The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

**Emission Limitations and Standards [326 IAC 2-7-5(1)]**

**D.1.1 Best Available Control Technology (BACT) for Volatile Organic Compounds (VOC) [326 IAC 2-2-3]**  
 Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD SSM 023-24843-00011:

- (a) VOC emissions from the solvent extraction and recovery process (EU38) main vent shall be controlled by a condenser and mineral oil absorber/scrubber system (CE-22).
- (b) The overall solvent loss ratio of the solvent extraction process shall not exceed 0.179 gallons of hexane per ton of soybeans processed. Compliance with the solvent loss ratio limit shall be demonstrated using the procedures established in 40 CFR Part 63, Subpart GGGG.
- (c) The Permittee shall optimize the design and operation of the Desolventizer-Toaster-Dryer-Cooler (DTDC) (consisting of EU23, EU24, EU24A and EU25) to mitigate VOC emissions.
- (d) Within 60 days of achieving full production permitted by PSD SSM 023-24843-00011, but no later than 180 days after startup of the modified extraction process, the Permittee shall implement a leak detection and correction program to control VOC emissions. The program is included as Attachment A to this permit.
- (e) The amount of soybeans processed by the source shall not exceed 1,314,000 tons per twelve consecutive month period with compliance determined at the end of each month.

**D.1.2 PM/PM10 Minor Emission Limitations for PSD [326 IAC 2-2]**

- (a) Pursuant to PSD SSM 023-24843-00011, the PM and PM10 emissions from the following units are limited as follows:

Unit (ID) *	PM Limit	PM10 Limit	Units for Limit
Vertical Seed Conditioner (EU44)	0.001	0.001	lb/ton beans processed
DTDC Meal Dryer Deck #1 and Deck #2 (EU23 and EU24)	0.00647	0.00647	
DTDC Meal Dryer Deck #3 (EU24A)	0.0063	0.0063	
DTDC Meal Cooler Deck (EU25)	0.0018	0.0018	
Grain Conveying (EU04)	0.061	0.034	lb/ton grain received
Bean Dryer, Cracking Rolls, Hull Separator and Conditioner (EU10/11/12/13)	0.00161	0.00161	lb/ton beans processed
Bean Dryer, Cracking Rolls, Hull Separator and Conditioner (EU10/11/12/13) (baghouse BH-06A bypassed)	0.131	0.085	

Unit (ID) *	PM Limit	PM10 Limit	Units for Limit
Conveying to Processing (EU07)	0.061	0.034	lb/ton grain received
Grain Cleaner (EU09)	0.00102	0.00102	lb/ton beans processed
Hull Screening (EU16)	0.00674	0.00674	lb/ton hulls processed
Hull Grinder (EU17)	0.00674	0.00674	
Flaking Rolls (EU14)	0.050	0.032	lb/ton beans processed
Meal Conveyor (EU26)	0.061	0.034	lb/ton meal produced
Meal Grinder and Sifter (EU27/28)	0.00347	0.00347	lb/ton beans processed
Meal Storage Conveyor (EU29)	0.061	0.034	lb/ton meal produced
Meal Surge Tanks (EU31)	0.025	0.0063	
Truck and Rail Receiving (EU01/02)	0.035	0.0078	lb/ton grain received
Elevator Leg vents (EU03)	0.061	0.034	
Grain Storage (EU05)	0.025	0.0063	lb/ton hulls processed
Hull Storage Unit (EU18)	0.025	0.0063	
Pellet Storage Unit (EU22)	0.025	0.0063	
Pellet Mill and Cooler (EU20/21)	0.030	0.030	lb/ton meal produced
Meal Storage Unit (EU30)	0.025	0.0063	
Truck Meal, Hull and Hull Pellet Loadout (EU34)	0.27	0.1755	lb/ton beans processed
Rail Meal, Hull and Hull Pellet Loadout (EU35)	0.27	0.1755	
Hull Surge Tank (EU32)	0.025	0.0063	lb/ton hulls processed
Meal Clay Storage Unit (EU36)	0.571	0.40	lb/ton clay received
Silica Clay Silo (EU47)	0.571	0.40	lb/ton clay received
Cooling Tower (EU45)	0.030	0.030	lb/hr

- (b) The amount of soybeans processed by the source shall not exceed 1,314,000 tons per twelve consecutive month period with compliance determined at the end of each month.
- (c) Units EU10, EU11, EU12 and EU13 may operate without the emissions control of baghouse BH-06A for no more than 200 hours per year.

Compliance with these limits will render the requirements of 326 IAC 2-2 not applicable with respect to PM and PM10 to the modification described in PSD SSM 023-24843-00011.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the emission units listed below shall be limited as shown in the tables below based on the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

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

or

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

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

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

- (a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the facilities listed below during normal operation shall be limited as indicated in the table below.

Emission Unit ID	Process Weight Rate (ton/hr)	Allowable Particulate Emissions (lb/hr)
Rail Unloading, EU01	400	66.3
Truck Unloading, EU02	720	73.4
Grain elevator, EU03	720	73.4
Conveyor to grain storage, EU04	1,200	80.0
Concrete silo top vents, EU05	720	73.4
Steel storage tank vents, EU06	720	73.4
Conveyor from grain storage, EU07	225	59.8
Grain Dryer, EU08	180	57.4
Grain Cleaner, EU09	180	57.4
Bean Dryer, EU10	122	53.3
Cracking Rolls, EU11	180	57.4
Hull Separator, EU12	180	57.4
Conditioner, EU13	180	57.4
Flaking, EU14	172	56.9
Expander, EU15	30	40.0
Hull Screen, EU16	14	24.0
Hull Grinder, EU17	14	24.0
Hull Storage Unit, EU18	14	24.0
Hull Conveyor, EU19	14	24.0
Pellet Mill, EU20	14	24.0
Pellet Cooler, EU21	14	24.0
Pellet Storage Unit, EU22	14	24.0
Dryer Deck #1, EU23	172	55.1
Dryer Deck #2, EU24	172	55.1
Dryer Deck #3, EU24A	172	55.1

Emission Unit ID	Process Weight Rate (ton/hr)	Allowable Particulate Emissions (lb/hr)
Cooler Deck, EU25	172	55.1
Meal Conveyor, EU26	136	54.4
Meal sifter, EU27	136	54.4
Meal grinder, EU28	136	54.4
Meal storage conveyor, EU29	136	54.4
Meal storage tank, EU30	136	54.4
Meal surge tanks, EU31	300	63.0
Hull surge tank, EU32	100	51.3
Mixing conveyor, EU33	250	61.0
Truck Meal & Hull Pellet loadout, EU34	250	61.0
Rail Meal & Hull Pellet loadout, EU35	250	61.0
Meal clay storage, EU36	25	35.4
Refinery clay storage, EU37	25	35.4
Bean cleaner, EU43	180	57.4
Vertical Seed Conditioner, EU44	180	57.4

- (1) For purposes of demonstrating compliance with the particulate emission limits for the rail unloading (EU01), the truck unloading (EU02), the grain elevator (EU03), the conveyor to grain storage (EU04), and the concrete silo top vents (EU05) all exhausting through baghouse GR-1, which exhausts through stack EP01, the allowable particulate emission rate from baghouse GR-1 shall be limited to 366.5 pounds per hour.
- (2) For purposes of demonstrating compliance with the particulate emission limits for the conveyor from grain storage (EU07), the grain cleaner (EU09), the hull screen (EU16), the hull storage unit (EU18) and the pellet storage unit (EU22) all exhausting through baghouse CE-05, which exhausts through stack EP03, the allowable particulate emission rate from baghouse CE-05 shall be limited to 159.1 pounds per hour.
- (3) For purposes of demonstrating compliance with the particulate emission limits for the bean dryer (EU10), the cracking rolls (EU11), the hull separator (EU12) and the conditioner (EU13) all exhausting through cyclone CE-06, which exhausts through stack EP04, the allowable particulate emission rate from cyclone CE-06 and baghouse BH-06A shall be limited to 225.5 pounds per hour.
- (4) For purposes of demonstrating compliance with the particulate emission limits for the flaking operation (EU14) exhausting through cyclone CE-07, which exhausts through stack EP05, the allowable particulate emission rate from cyclone CE-07 shall be limited to 56.9 pounds per hour.

- (5) For purposes of demonstrating compliance with the particulate emission limits for the pellet mill (EU20) and the pellet cooler (EU21) both exhausting through cyclone CE-08, which exhausts through stack EP07, the allowable particulate emission rate from cyclone CE-08 shall be limited to 35.8 pounds per hour.
  - (6) For purposes of demonstrating compliance with the particulate emission limits for the conveyor to meal screens (EU26), the meal sifter (EU27), the meal grinder (EU28) and the meal storage conveyor (EU29) all exhausting through baghouse BH-2A, which exhausts through stack EP11, the allowable particulate emission rate from baghouse BH-2A shall be limited to 217.6 pounds per hour.
  - (7) For purposes of demonstrating compliance with the particulate emission limits for the truck meal & hull pellet loadout (EU34), and the rail meal & hull pellet loadout (EU35) all exhausting through baghouse ML-1, which exhausts through stack EP12, the allowable particulate emission rate from baghouse ML-1 shall be limited to 122 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2, the allowable particulate emissions rate from the following processes when soybean meal is stockpiled in railcars during plant's shutdowns shall be limited as follows:

Emission Unit ID	Process Weight Rate (ton/hr)	Allowable Particulate Emissions (lb/hr)
Rail/Truck Receiving (EU01 and EU02)	400	66.3
Grain/Meal Elevator (EU03)	720	73.4
Conveyor to Meal Storage Tanks (EU28A)	136	54.4
Meal Storage Tanks (EU30)	136	54.4
Meal Surge Tanks (EU31)	300	63.0
Rail/Truck Meal Loadout (EU34 and EU35)	250	61.0

#### D.1.4 Consent Decree Requirements

Pursuant to the Consent Decree in United States v. Archer Daniels Midland Company, Civil Action No. 03-2066, that was lodged with the United States District Court for the Central District of Illinois, the following requirements apply to the Permittee:

- (a) As part of the consent decree, an once-through cold water condenser shall be installed and will be located between the vent condenser and the mineral oil absorber/scrubber. The purpose of this condenser is to condense hexane vapors and reduce the vapor loading to the mineral oil absorber/scrubber. The Consent Decree requires that ADM's Frankfort, Indiana plant install only the once-through cold-water condenser prior to the mineral oil absorber/scrubber. ADM shall conduct a design and engineering review of each affected unit to size the condenser upgrade. The design criteria for the once-through cold-water condenser that will be the basis for sizing the required condenser upgrade is a minimum of 94 ft<sup>2</sup> surface area.

By no later than the dates set forth in section 6.0 of Attachment 9 of the Consent Decree, VOC Control Technology Plan for ADM's Oilseed Plants, ADM shall upgrade its oilseed plants so that all plants have condenser systems that include, at a minimum, a dedicated "extractor condenser" for the extractor and a once-through cold water condenser following the vent condenser. This shall be done at all ADM plants no later than April 1, 2006.

- (b) By no later than December 31, 2007, ADM shall propose in writing to the U.S. EPA, the Department of Justice, and the OAQ, the Plaintiffs in the Consent Decree for this plant, final VOC Solvent Loss Ratio (SLR) limits for this facility that satisfy the requirements of Subsection 5.2 of Attachment 9 of the Consent Decree presented below.

Except for multi-seed plants, the capacity-weighted average of these final VOC SLR limits for the conventional soybean group shall not exceed the VOC SLR limit of 0.175 gal/ton for conventional soybean plants.

The capacity weighted average of the final VOC SLR limit for the conventional soybean group is to be calculated using the following equation:

$$\text{Conventional Soybean} = \frac{\sum(\text{Seed}_i * \text{SLR}_i)}{\sum(\text{Seed}_i)} \leq 0.175 \text{ gal/ton}$$

where: Seed<sub>i</sub> = Crush capacity of soybean plant i; and  
SLR<sub>i</sub> = Final SLR Limit for soybean plant i.

The capacity-weighted averages shall be based on the design capacity for each plant that has been approved by the Plaintiffs under Paragraph 68 of the Consent Decree. For purposes of the Consent Decree, design capacity is the "maximum permitted crush capacity" that a plant is allowed to process in a given time period under its operating permit; or, if no limit is included in the operating permit, the plant's maximum physical capacity. This number is expressed as "tons of crush per day."

Note the maximum crush capacity of the oil extraction process at this source is confidential trade secret information.

Compliance with these requirements satisfies the requirements of 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 (New Facilities, General Reduction Requirements).

#### D.1.5 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

The Permittee shall comply with the following:

- (a) The source soybean meal production shall be limited to a total of 1,143,180 tons per twelve (12) consecutive month period, with compliance at the end of each month.
- (b) The soybean meal stockpiled into the railcars during plant's shutdown shall be limited to 100,000 tons per twelve (12) consecutive month period, with compliance at the end of each month. The soybean meal stockpiled shall be counted toward the source total soybean meal production limit of 1,143,180 tons per twelve (12) consecutive month period.

Compliance with the above limits shall render the requirements of 326 IAC 2-2, Prevention of Significant Deterioration not applicable with respect to PM and PM10.

#### D.1.6 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

### **Compliance Determination Requirements**

#### D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

In order to demonstrate compliance with Condition D.1.2, the Permittee shall:

- (a) Perform PM and PM10 testing of the stack exhaust from all units (except for EU04, EU07, EU19, EU26, EU29, EU36, EU45 and EU47) limited by Condition D.1.2, within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for

Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), signed on May 25, 2008 or at least once every five (5) years from the date of valid compliance demonstration, whichever date is later. These tests shall be conducted utilizing methods approved by the Commissioner in accordance with Section C - Performance Testing. PM<sub>10</sub> includes filterable and condensable PM.

- (b) Perform PM and PM<sub>10</sub> testing of the stack exhaust from EU30, within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), signed on May 25, 2008 or at least once every five (5) years from the date of valid compliance demonstration, whichever date is later. The source will test the exhaust from EP30A or EP30B then multiply the results by 2. The stack not tested, will be tested during the next compliance demonstration test in five years then testing will alternate between the two stacks every five years after. This testing shall be conducted utilizing methods as approved by the Commissioner. Testing shall be conducted in accordance with Section C - Performance Testing. PM-10 includes filterable and condensable PM.

**D.1.8 VOC Compliance - Consent Decree and PSD [326 IAC 2-2]**

- (a) Compliance with Conditions D.1.1(b) and D.1.4 shall be determined in accordance with 40 CFR Part 63, Subpart GGGG, with the following exceptions:
  - (1) provisions pertaining to HAP content shall not apply;
  - (2) monitoring and recordkeeping of solvent losses at the plant shall be conducted daily;
  - (3) solvent losses and quantities of oilseed processed during startup and shutdown periods shall not be excluded in determining solvent losses; and
  - (4) records shall be kept in the form of the table included in Section 8.0 of Attachment 9 of the Consent Decree and presented here that show total solvent losses, solvent losses during malfunction periods, adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve-month rolling basis as follows:

Solvent Loss Record for ADM Oilseed Plant X

Date	Total Crush (tons)		Total Solvent Loss (gallons)		Malfunction Period Solvent Loss (gallons)		Adjusted Solvent Loss <sup>a</sup> (gallons)		SLR <sup>b</sup> (gal/ton)
	Monthly	12-Month Rolling	Monthly	12-Month Rolling	Monthly	12-Month Rolling	Monthly	12-Month Rolling	12-Month Rolling
Month, Year									

a -Adjusted Solvent Loss is equal to Total Solvent Loss minus Malfunction Period Loss.

b -Solvent Loss Ratio is equal to 12-month rolling Adjusted Solvent Loss divided by 12-Month Rolling Total Crush.

Compliance determination for each plant is based on 12-Month Rolling SLR value compared to Final VOC SLR Limit.

- (b) For plants with interim or final solvent loss limits, ADM may apply the provisions of 40 CFR Part 63, Subpart GGGG pertaining to malfunction periods only when the conditions in both paragraphs (1) and (2) below are met:
  - (1) The malfunction results in a total plant shutdown. For purposes of the Consent Decree, a "total plant shutdown" means a shutdown of the solvent extraction system.

- (2) Cumulative solvent losses during malfunction periods at a plant do not exceed 4,000 gallons in a 12-month rolling period.

At all other times, ADM must include all solvent losses when determining compliance with its interim or final VOC SLR limits at this plant.

During a malfunction period, ADM shall comply with the startup, shutdown and malfunction (SSM) plan as required under Subpart GGGG for the plant. The solvent loss corresponding to a malfunction period will be calculated as the difference in the total solvent inventories for the day before the malfunction period began and the day the plant resumes normal operation.

#### D.1.9 Particulate Control

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- (a) In order to comply with Conditions D.1.2 and D.1.3, baghouses BH-06A, CE-05, ML-1, MC-1, BH-2A, CE-20A, CE-21 and cyclones CE-06, CE-07, CE-09, CE-10, CE-10A, CE-11, CE-18, CE-19, CE-19A, CE-19B, CE-20 and CE-44 for particulate control shall be in operation and control emissions from the associated units at all times that the associated units are in operation unless specified otherwise in Condition D.1.2.
- (b) In order to comply with Condition D.1.3, baghouse GR-1 for particulate control shall be in operation and control emissions from EU01, EU02, EU03 and EU04 at all times at least one of the respective units are 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.1.10 VOC Control

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Pursuant to 326 IAC 2-2-3, and in order to comply with Conditions D.1.1(b) and D.1.4, the condenser and mineral oil absorber/scrubber system (CE-22) shall be operated at all times that the hexane solvent oil extraction process (EU38) is in operation.

#### D.1.11 Particulate Control

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The cyclone CE-08 for particulate control shall be in operation and control emissions from the pellet mill (EU20) and the pellet cooler (EU21) at all times that the pellet mill (EU20) and the pellet cooler (EU21) are in operation. This source accepted this requirement on a voluntary basis.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)][40 CFR 64]**

#### D.1.12 Visible Emissions Notations [40 CFR 64]

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- (a) Visible emission notations of the stack exhausts from baghouses GR-1, BH-06A, CE-05, BH-2A, ML-1, MC-1, RCB, CE-20A and CE-21 and the stack exhausts for cyclones CE-06, CE-07, CE-08, CE-09, CE-10 (CE-09 and CE-10) exhaust through a common stack), CE-10A, CE-11 and CE-44 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the stack exhaust from cyclone CE-06 shall be performed once per day during normal operations, while bypassing BH-06A, if the emissions from EU10, EU11, EU12 and EU13 bypassed baghouse BH-06A at any time during that day.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.

- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.1.13 Broken or Failed Bag Detection [40 CFR 64]

For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

Bag failure may be indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions, by an opacity violation, or by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows.

#### D.1.14 Cyclone Failure Detection [40 CFR 64]

In the event that cyclone failure has been observed:

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

#### D.1.15 Parametric Monitoring [40 CFR 64]

- (a) The Permittee shall record the following for the scrubber (CE-22) used in conjunction with the oil extraction process, identified as EU38, at least once per day when the oil extraction process is in operation:
  - (1) the total pressure drop across the scrubber;
  - (2) the inlet gas temperature of the scrubber;
  - (3) the outlet gas flow rate of the scrubber; and
  - (4) the mineral oil flow rate in the scrubber.
- (b) When for any one reading:
  - (1) the pressure drop across the scrubber is outside the normal range of 0.2 and 10.0 inches of water or a range established during the latest stack test;
  - (2) the inlet gas temperature is outside the normal range of 45 and 100 degrees F or a range established during the latest stack test;
  - (3) the outlet gas flow rate is outside the normal range of 50 and 250 cubic feet per minute (cfm) or a range established during the latest stack test; or
  - (4) the mineral oil flow rate is outside the normal range of 10.0 and 75.0 gallons per minute (gpm) or a range established during the latest stack test;

the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading, inlet gas temperature, outlet gas flow rate, or a mineral oil flow rate that is outside the above mentioned ranges, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

## **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

### **D.1.16 Record Keeping Requirements**

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- (a) To demonstrate and document compliance with Conditions D.1.1(b) and D.1.4, ADM shall:
- (1) maintain the records required by 40 CFR Part 63, Subpart GGGG on solvent loss and quantity of oilseed processed; and
  - (2) maintain the records required by 40 CFR Part 63, Subpart GGGG, for any malfunction period as defined in Section 8.0 of Attachment 9 of the Consent Decree.
  - (3) keep monthly records in the form of the table included in Section 8.0 of Attachment 9 of the Consent Decree and at the end of this permit that show total solvent losses, solvent losses during malfunction periods, adjusted solvent losses (i.e., total solvent losses minus malfunction losses) monthly and on a twelve-month rolling basis.
- (b) To document compliance with Condition D.1.12, the Permittee shall maintain a daily record of visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (c) To document compliance with Condition D.1.15, the Permittee shall maintain records of the scrubber operating parameters required by that condition. The Permittee shall include in its daily record when a reading is not taken and the reason for the lack of a reading (e.g. the process did not operate that day).
- (d) To document compliance with Condition D.1.1(d), the Permittee shall maintain records required by the leak detection and correction program; included as Attachment A to this permit.
- (e) To document compliance with Conditions D.1.1(e) and D.1.2(b), the Permittee shall maintain daily records of the amount of soybeans processed by the plant.
- (f) To document compliance with Condition D.1.7, the Permittee shall maintain records of the results from tests required by that condition.
- (g) To document compliance with Condition D.1.2(c), the Permittee shall maintain records of the number of hours in which the emissions from EU10, EU11, EU12 and EU13 are not controlled by baghouse BH-06A.
- (h) To document compliance with Condition D.1.5, the Permittee shall maintain records of the source total soybean meal production and the soybean meal stockpiled into the railcars.
- (i) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.1.17 Reporting Requirements

A summary of the information to document compliance with Conditions D.1.1(e), D.1.2(b) and D.1.5 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the reporting period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

- (nn) Boiler #1, identified as EU39, constructed in 1960, with a rated capacity of 62.5 MMBtu per hour and firing natural gas, vegetable oil, No. 2 distillate fuel oil, or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP15);
- (oo) Boiler #3, identified as EU41, constructed in 1992, with a rated capacity of 82.5 MMBtu per hour and firing natural gas, vegetable oil, No. 2 distillate fuel oil, or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP17);
- (pp) One (1) Refinery Boiler, identified as EU42, constructed in 2000, with a rated capacity of 13 MMBtu per hour and firing natural gas or No. 2 distillate fuel oil, exhausting to one (1) stack (EP18);
- (qq) Boiler #4, identified as EU46, approved for construction in 2008, with a rated capacity of 145 MMBtu per hour firing natural gas and 140 MMBtu firing vegetable oil, No. 2 distillate fuel oil or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP46);

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

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.2.1 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

Pursuant to PSD SSM 023-24843-00011 and 326 IAC 2-2-3 (BACT):

- (a) VOC emissions from EU46 shall be minimized using good combustion practices;
- (b) VOC emissions shall not exceed 0.0014 pounds per MMBtu when firing distillate oil; and
- (c) VOC emissions shall not exceed 0.0054 pounds per MMBtu when firing natural gas or vegetable oil.

#### D.2.2 PM/PM10 and NOx Minor Emission Limitations for PSD [326 IAC 2-2]

Pursuant to PSD SSM 023-24843-00011, emissions from EU46 (boiler #4) are limited as follows:

- (a) The PM emissions shall not exceed 0.070 pounds per MMBtu heat input and 32.7 tons per twelve consecutive month period with compliance determined at the end of each month.
- (b) The PM10 emissions shall not exceed 0.070 pounds per MMBtu heat input and 12.8 tons per twelve consecutive month period with compliance determined at the end of each month.
- (c) The NOx emissions shall not exceed 37.0 tons per twelve consecutive month period with compliance determined at the end of each month.

Compliance with these limits will render the requirements of 326 IAC 2-2 not applicable with respect to PM, PM10 and NOx to the modification described in PSD SSM 023-24843-00011.

#### D.2.3 Particulate [326 IAC 6-2-3]

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Pursuant to 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from EU39 shall be limited to 0.59 pounds per MMBtu heat input.

This limitation is based on the following equation:

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

where:

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

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.  
Note: This information is a confidential trade secret.

N = Number of stacks in fuel burning operation = 1

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet = 39 ft.

#### D.2.4 Particulate [326 IAC 6-2-4]

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Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating) the PM emissions from EU41, EU42 and EU46 shall be limited to 0.28, 0.28 and 0.24 pounds per MMBtu heat input, respectively.

These limitations are based on the following equation:

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

where: Pt = Pounds of particulate matter emitted per million Btu heat input

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

#### D.2.5 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1]

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Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations):

- (a) The SO<sub>2</sub> emissions from each EU41 and EU42 shall not exceed five tenths (0.5) pounds per million Btu heat input; or
- (b) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]

**D.2.6 Sulfur Dioxide (SO<sub>2</sub>) [326 IAC 7-1.1-1] [326 IAC 7-2-1]**

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Pursuant to 326 IAC 7-1.1 (SO<sub>2</sub> Emissions Limitations) the SO<sub>2</sub> emissions from EU39 and EU46 shall not exceed five tenths (0.5) pound per MMBtu heat input. Pursuant to 326 IAC 7-2-1, compliance shall be demonstrated on a calendar month average.

**D.2.7 Distillate Fuel Oil / Vegetable Oil Usage Limitations [326 IAC 2-2]**

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Pursuant to SSM 023-21838-00011, issued December 22, 2005 and PSD SSM 023-24843-00011:

- (a) The usage of vegetable oil in boiler #1 and boiler #3 (EU39 and EU41) shall not exceed a total of 4.10 million gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. When using blends of vegetable oil and distillate fuel oil, only the volume of fuel which is vegetable oil shall count toward the usage limit.
- (b) For boiler #1 and boiler #3 (EU39 and EU41), when burning vegetable oil or blends of vegetable oil and distillate fuel oil, PM<sub>10</sub> emissions shall not exceed 0.07 pounds per million Btu heat input for each boiler.

Compliance with the above limits will render the requirements of 326 IAC 2-2 not applicable with respect to PM<sub>10</sub> to the modification described in PSD SSM 023-24843-00011.

**D.2.8 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for EU39, EU41, EU42 and EU46.

**Compliance Determination Requirements**

**D.2.9 PM and PM<sub>10</sub> Emissions Determination [326 IAC 2-2]**

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Pursuant PSD SSM 023-24843-00011:

Compliance with Condition D.2.2(a) and (b) shall be determined through stack testing pursuant to Condition D.2.12 and by calculating the PM and PM<sub>10</sub> emissions using the following equation:

$$PM/PM_{10} = [(EF_{\#2oil} \times FU_{\#2oil} \times HC_{\#2oil}) + (EF_{veg} \times FU_{veg} \times HC_{veg}) + (EF_{gas} \times FU_{gas} \times HC_{gas})] \times 1/2000 \text{ (ton/lb)}$$

where:

PM/PM<sub>10</sub> = The PM/PM<sub>10</sub> emissions from EU46 for a calendar month.

EF<sub>#2oil</sub> = PM or PM<sub>10</sub> emission factor for distillate fuel oil combustion (lb/MMBtu). This value is equal to 0.0236 (PM) and 0.0164 (PM<sub>10</sub>) until the OAQ approves other emission factors.

FU<sub>#2oil</sub> = The amount of distillate fuel oil combusted by the boiler in a calendar month (gal/month).

HC<sub>#2oil</sub> = Heating value of distillate fuel oil (MMBtu/gal). This value is equal to 0.14 until the OAQ approves another.

EF<sub>veg</sub> = PM/PM<sub>10</sub> emission factor for vegetable oil combustion (lb/MMBtu). This value is equal to 0.07 until the OAQ approves another.

FU<sub>veg</sub> = The amount of vegetable oil combusted by the boiler in a calendar month (gal/month).

HC<sub>veg</sub> = Heating value of vegetable oil (MMBtu/gal).

$EF_{\text{gas}}$  = PM/PM10 emission factor for natural gas combustion (lb/MMBtu). This value is equal to 0.0075 until the OAQ approves another.

$FU_{\text{gas}}$  = The amount of natural gas combusted by the boiler in a calendar month (MMCF/month).

$HC_{\text{gas}}$  = Heating value of natural gas (MMBtu/MMCF). This value is equal to 1020 until the OAQ approves another.

#### D.2.10 NOx Emissions Determination [326 IAC 2-2]

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Pursuant to PSD SSM 023-24843-00011, the Permittee shall use a NOx CEMS to determine compliance with Condition D.2.2(c).

#### D.2.11 Sulfur Dioxide Emissions and Sulfur Content

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Compliance shall be determined for EU39 and EU46 utilizing one of the following options.

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

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

#### D.2.12 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

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The Permittee shall perform PM and PM10 testing on EU39, EU41, or EU46 to demonstrate compliance with Condition D.2.2 and D.2.7(b) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 25, 2008. These tests shall be repeated at least once every five (5) years from the date of valid compliance demonstration. The boiler tested shall not be a boiler tested in the previous six (6) years. This testing shall be conducted utilizing methods as approved by the Commissioner in accordance with Section C - Performance Testing. PM<sub>10</sub> includes filterable and condensable PM.

### **Compliance Monitoring Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]**

#### D.2.13 Visible Emissions Notations

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- (a) Visible emission notations of the stack exhausts from EU39, EU41, EU42 and EU46 shall be performed once per day, when combusting fuel oil and/or vegetable oil, 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 in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### D.2.14 Continuous Emissions Monitoring

- (a) Continuous emission monitoring systems (CEMS) for EU46 (boiler #4) shall be installed, calibrated, maintained, and operated for measuring NO<sub>x</sub> and O<sub>2</sub> which meet all applicable performance specifications of 326 IAC 3-5-2.
- (b) The continuous emission monitoring systems must meet the certification requirements pursuant to 326 IAC 3-5-3.
- (c) If revisions are made to the continuous monitoring standard operating procedures (SOP), the Permittee shall submit updates to the department biennially.
- (d) Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR Part 60.

#### D.2.15 NO<sub>x</sub> Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Whenever the NO<sub>x</sub> continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following method shall be used to provide information related to NO<sub>x</sub> emissions:

- (a) The Permittee shall record the natural gas flow rate at least four (4) times per hour until the primary CEM or a backup CEM is brought online and functioning properly. When for any one reading, the natural gas flow rate is outside the normal range during downtime of the NO<sub>x</sub> CEMS, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.
- (b) The instrument used for determining the natural gas flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

#### **Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

#### D.2.16 Record Keeping Requirements

- (a) To document compliance with Condition D.2.2(c), the Permittee shall maintain records of the amount of fuels combusted by EU46 (boiler #4).

- (b) To document compliance with Conditions D.2.5 and D.2.6, the Permittee shall maintain records in accordance with (1) through (7) below. Note that pursuant to 40 CFR Part 60, Subpart Dc (EU-41 and EU-42) and 40 CFR 60, Subpart Db (EU46) the fuel oil sulfur limit for EU41, EU42 and EU46 applies at all times including periods of startup, shutdown, and malfunction.

- (1) Calendar dates covered in the compliance determination period;
- (2) Actual No. 2 fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;
- (3) To certify compliance when burning natural gas only, the Permittee shall maintain records of fuel used.

If the fuel supplier certification is used to demonstrate compliance, when burning distillate fuel oil or blends of distillate fuel oil and vegetable oil and not determining compliance pursuant to 326 IAC 3-7-4, the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications;
- (5) The name of the fuel supplier;
- (6) The percentage of distillate fuel oil in the fuel; and
- (7) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

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

- (c) To document compliance with Condition D.2.9, the Permittee shall maintain monthly records of the PM and PM10 emissions from EU46.
- (d) The Permittee shall maintain records sufficient to verify compliance with the procedures specified in Conditions D.2.10 and D.2.11. Records shall be maintained for a period of five (5) years and shall be made available upon request by IDEM.
- (e) To document compliance with Condition D.2.13, the Permittee shall maintain a record of the visible emission notations required by that condition. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (f) To document compliance with Condition D.2.15, the Permittee shall maintain a record of the natural gas flow rate readings during CEMS downtime.
- (g) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

#### D.2.17 Reporting Requirements

- (a) The natural gas boiler certification shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or its equivalent, within thirty (30) days after the end of the six (6) month period being reported. The natural gas-fired boiler certification does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (b) A quarterly summary of the information to document compliance with Conditions D.2.1, D.2.2 and D.2.7 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the six (6) month period being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

## SECTION D.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]:

#### Insignificant Activities

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6: One (1) parts washer, constructed after 1990. [326 IAC 8-3-2][326 IAC 8-3-5]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment. [326 IAC 6-3-2]
- (c) The following activities with emissions equal to or less than insignificant thresholds:
  - (1) One (1) cooling tower (CT#7), identified as EU45, with a design recirculation rate of 1,500 gal/min. [326 IAC 2-2]
  - (2) One (1) silica clay storage silo, identified as EU47, constructed in 2002, with a maximum throughput of 450 tons per year, particulate emissions controlled by a baghouse (RC-2) and exhausting through one (1) stack (EP19). [326 IAC 6-3-2] [326 IAC 2-2]
  - (3) Six (6) Cooling Towers (CT#1 thru CT#6), identified as EU48, constructed from 1985 through 1996, three (3) with a design recirculation rate of 2315 gal/min, one (1) with a design recirculation rate of 1925 gal/min and two (2) with a design recirculation rates 1500 gal/min. [326 IAC 2-2]
  - (4) One (1) fire pump with a 230 horsepower engine, identified as EU49, constructed in 1985. [326 IAC 2-2]

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

### Emission Limitations and Standards [326 IAC 2-7-5(1)]

#### D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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

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

D.3.2 Volatile Organic Compounds (VOC) [326 8-3-5]

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

- (3) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**D.3.3 Particulate [326 IAC 6-3-2]**

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Pursuant to 326 IAC 6-3-2(e)(2) (Particulate Emission Limitations for Manufacturing Processes), 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. This applies to the brazing equipment, cutting torches, soldering equipment, welding equipment and the silica clay storage silo.

**D.3.4 Particulate [326 IAC 2-2]**

---

Pursuant to PSD SSM 023-24843-00011 and in order to render the requirements of 326 IAC 2-2 not applicable to the modification permitted by that approval, the PM and PM10 emissions from:

- (a) The silica clay storage silo (EU47) shall be less than 0.571 and 0.40 pounds per ton of clay received, respectively.
- (b) The cooling tower (EU45) shall be less than 0.03 pounds per hour.

**D.3.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]**

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

**Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]**

**D.3.6 Record Keeping Requirements**

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- (a) To document compliance with Condition D.3.4, the Permittee shall maintain records of the clay received by EU47.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**SECTION E.1**

**FACILITY OPERATION CONDITIONS**

**Facility Description [326 IAC 2-7-5(15)]:**

- (qq) Boiler #4, identified as EU46, approved for construction in 2008, firing natural gas, vegetable oil, No. 2 distillate fuel oil or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP46);

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

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

- (a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section E.1 except when otherwise specified in 40 CFR 60, Subpart Db.

- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

**E.1.2 New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units [40 CFR Part 60, Subpart Db] [326 IAC 12]**

The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart Db (New Source Performance Standards (NSPS) for Industrial-Commercial-Institutional Steam Generating Units) (included as Attachment B of this permit) which are incorporated by reference as 326 IAC 12:

- (1) 40 CFR 60.40b (a)
- (2) 40 CFR 60.41b
- (3) 40 CFR 60.42b (a), (e), (g) and (j)
- (4) 40 CFR 60.43b (f) and (g)
- (5) 40 CFR 60.44b (a)(1)(ii), (b), (c), (e), (f), (h) and (i)
- (6) 40 CFR 60.45b (b), (j) and (k)
- (7) 40 CFR 60.46b (a), (c), (d)(7), and (e)
- (8) 40 CFR 60.47b (f)
- (9) 40 CFR 60.48b (a) through (g), (i), (j)(2), (j)(4) and (j)(5)
- (10) 40 CFR 60.49b (b), (c), (d), (f) through (j), (o) and (r)

## SECTION E.2

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (a) One (1) rail unloading operation, identified as EU01, constructed in 1946 and modified in 2004, controlled for particulate matter by one (1) baghouse (GR-1), and exhausting to one (1) stack (EP01), including the following:
  - (1) Two (2) discharge drag conveyor (S-1 and S-1A);
- (d) One (1) drag conveyor to grain storage (S-5), identified as EU04, constructed in 1946 and approved for modification in 2008, controlled for particulate matter by one (1) baghouse (GR-1), and exhausting to one (1) stack (EP01);
- (g) Two (2) conveyor from grain storage (S-6 and S-7), identified as EU07, constructed in 1946 and approved for modification in 2008, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series, and exhausting to one (1) stack (EP03);
- (i) One (1) grain cleaner (P-120), identified as EU09, constructed in June of 1990 and approved for modification in 2008, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series, and exhausting to one (1) stack (EP03);

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

### E.2.1 General Provisions Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR Part 60, Subpart A]

- (a) The provisions of 40 CFR 60, Subpart A - General Provisions, which are incorporated by reference in 326 IAC 12-1, apply to the facilities described in this Section E.2 except when otherwise specified in 40 CFR 60, Subpart DD.
- (b) Pursuant to 40 CFR 60.19, the Permittee shall submit all required notifications and reports to:

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

### E.2.2 New Source Performance Standards (NSPS) for Grain Elevators [40 CFR Part 60, Subpart DD] [326 IAC 12]

- (a) The Permittee shall comply with the following provisions of 40 CFR Part 60, Subpart DD (New Source Performance Standards (NSPS) for Grain Elevators) (included as Attachment C of this permit) which are incorporated by reference as 326 IAC 12:
  - (1) 40 CFR 60.300
  - (2) 40 CFR 60.301
  - (3) 40 CFR 60.302 (b)(1), (b)(2), and (c)(2)
  - (4) 40 CFR 60.303
  - (5) 40 CFR 60.304
- (b) This NSPS, Subpart DD is not applicable to the affected truck unloading station and railcar unloading station when handling the stockpiled soybean meal. This rule is only applicable to these equipment when handling soybeans.

## SECTION E.3

## FACILITY OPERATION CONDITIONS

### Facility Description [326 IAC 2-7-5(15)]

- (kk) One (1) oil extraction process, identified as EU38, constructed in May of 1985 and approved for modification in 2008, using hexane solvent, with emissions released through a number of exit streams in the process collectively called the "hexane bubble". The process is equipped with one (1) mineral oil absorber/scrubber (CE-22), which exhausts through one (1) stack (EP25). This process is also equipped with a once-through cold water condenser located between the vent condenser and the mineral oil absorber/scrubber;

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

### E.3.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants [326 IAC 20-1] [40 CFR Part 63, Subpart A]

- (a) The provisions of 40 CFR Part 63, Subpart A (General Provisions), which are incorporated by reference in 326 IAC 20-1, apply to the facilities described in this Section E.3 except when otherwise specified in 40 CFR Part 63, Subpart GGGG.
- (b) Pursuant to 40 CFR 63.9, the Permittee shall submit all required notifications and reports to:

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

### E.3.2 National Emission Standards for Hazardous Air Pollutants (NESHAPs): Solvent Extraction for Vegetable Oil Production [40 CFR Part 63, Subpart GGGG] [326 IAC 20]

The Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart GGGG (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Solvent Extraction for Vegetable Oil Production (included as Attachment D of this permit) which are incorporated by reference as 326 IAC 20:

- (1) 40 CFR 63.2832 (a)
- (2) 40 CFR 63.2833
- (3) 40 CFR 63.2834 (a)
- (4) 40 CFR 63.2840 (a), (b)(1) through (b)(5), and (e) through (f)
- (5) 40 CFR 63.2850 (a), (b), (d) (e)(1)(i), (e)(1)(iii) and (e)(2)
- (6) 40 CFR 63.2851
- (7) 40 CFR 63.2852
- (8) 40 CFR 63.2853
- (9) 40 CFR 63.2854
- (10) 40 CFR 63.2855
- (11) 40 CFR 63.2860 (a), (c) and (d)
- (12) 40 CFR 63.2861
- (13) 40 CFR 63.2862
- (14) 40 CFR 63.2863
- (15) 40 CFR 63.2870
- (16) 40 CFR 63.2871
- (17) 40 CFR 63.2872
- (18) Table 1 of 63.2833
- (19) Item (a) of Table 1 of 63.2834

- (20) Item (ix) of Table 1 of 63.2840
- (21) Table 1 of 63.2850
- (22) Items (a) and (c) of Table 2 of 63.2850
- (23) Table 1 of 63.2853
- (24) Table 1 of 63.2870

## INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

### PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, Indiana 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011

**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:

Phone:

Date:

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

**PART 70 OPERATING PERMIT  
EMERGENCY OCCURRENCE REPORT**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, Indiana 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011

**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
Type of Pollutants Emitted: TSP, PM-10, SO <sub>2</sub> , VOC, NO <sub>X</sub> , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

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

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

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

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

A certification is not required for this report.

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

**PART 70 OPERATING PERMIT  
SEMI-ANNUAL NATURAL GAS FIRED BOILER CERTIFICATION**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, Indiana 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

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

**Part 70 Quarterly Report**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, Indiana 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011  
Facility: Boiler #1(EU39) and Boiler #3 (EU41)  
Parameter: PM<sub>10</sub> emissions  
Limit: The usage of vegetable oil in boiler #1 and boiler #3 shall not exceed a total of 4.10 million gallons 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
	Vegetable Oil Usage This Month (gallons)	Vegetable Oil Usage Previous 11 Months (gallons)	Vegetable Oil Usage 12 Month Total Usage (gallons)
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

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

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

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

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

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

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011  
Facility: Entire source  
Limit: The amount of soybeans processed by the source shall not exceed 1,314,000 tons twelve consecutive month period with compliance determined at the end of each month.

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

Month	Soybeans processed (tons)	Soybeans processed (tons)	Soybeans processed (tons)
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by:  
Title / Position:  
Signature:  
Date:  
Phone:

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011  
Facility: EU46  
Parameter: PM emissions  
Limit: PM emissions shall not exceed 32.7 tons per twelve consecutive month period with compliance determined at the end of each month.

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

Month	PM Emissions	PM Emissions	PM Emissions
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by:  
Title / Position:  
Signature:  
Date:  
Phone:

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011  
Facility: EU46  
Parameter: PM<sub>10</sub> emissions  
Limit: PM<sub>10</sub> emissions shall not exceed 12.8 tons per twelve consecutive month period with compliance determined at the end of each month.

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

Month	PM10 Emissions	PM10 Emissions	PM10 Emissions
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by:  
Title / Position:  
Signature:  
Date:  
Phone:

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011  
Facility: EU46  
Parameter: NOx emissions  
Limit: NOx emissions shall not exceed 37.0 tons per twelve consecutive month period with compliance determined at the end of each month.

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

Month	NOx Emissions	NOx Emissions	NOx Emissions
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

No deviation occurred in this quarter.

Deviation/s occurred in this quarter.  
Deviation has been reported on:

Submitted by:  
Title / Position:  
Signature:  
Date:  
Phone:

Attach a signed certification to complete this report.

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

**Part 70 Quarterly Report**

Source Name: Archer Daniels Midland Company  
 Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041  
 Mailing Address: P.O. Box 249, Frankfort, IN 46041  
 Part 70 Permit No.: T023-26991-00011  
 Facility: Entire Source and Railcars  
 Parameter: PM and PM<sub>10</sub> emissions  
 Limit: The source soybean meal production shall be limited to a total of 1,143,180 tons per twelve (12) consecutive month period, with compliance at the end of each month.

The soybean meal stockpiled into the railcars during plant's shutdown shall be limited to 100,000 tons per twelve (12) consecutive month period, with compliance at the end of each month. The soybean meal stockpiled shall be counted toward the source total soybean meal production limit of 1,143,180 tons per twelve (12) consecutive month period.

Quarter: \_\_\_\_\_ Year: \_\_\_\_\_

Month	1	2	Total Soybean Meal Produced (1 +2) This Month	1	2	Total Soybean Meal Produced (1 +2) Previous 11 Months	1	2	Total Soybean Meal Produced (1 +2) 12 months Total
	Soybean Meal Stockpiled (tons) This Month	Soybean Meal Produced (tons) This Month		Soybean Meal Stockpiled (tons) Previous 11 Months	Soybean Meal Produced (tons) Previous 11 Months		Soybean Meal Stockpiled (tons) 12 months Total	Soybean Meal Produced (tons) 12 months Total	
Month 1									
Month 2									
Month 3									

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

Submitted by: \_\_\_\_\_  
 Title / Position: \_\_\_\_\_  
 Signature: \_\_\_\_\_  
 Date: \_\_\_\_\_  
 Phone: \_\_\_\_\_

Attach a signed certification to complete this report.

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

**PART 70 OPERATING PERMIT  
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Archer Daniels Midland Company  
Source Address: 2191 West County Road 0 N/S, Frankfort, Indiana 46041  
Mailing Address: P.O. Box 249, Frankfort, IN 46041  
Part 70 Permit No.: T023-26991-00011

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

Page 1 of 2

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

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

Form Completed By: \_\_\_\_\_

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

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

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

Attach a signed certification to complete this report.

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

**ATTACHMENT A - Leak Detection and Correction Program**

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD SSM 023-24843-00011, within 60 days of achieving full production, but no later than 180 days after startup of the modified extraction process, the Permittee shall implement a leak detection and correction program to control VOC emissions. The program is as follows:

- (a) Extraction plant operators shall visually inspect equipment that contains hexane on a daily basis. Operators shall check for leaks on the basis of sight, sound and/or smell at pump seals, valves, process piping, and process equipment (such as condensers and heat exchangers). If a leak is found, a work order shall be written to repair the leak.
- (b) Corrective action to repair leaks shall be taken as soon as possible and usually within five days of writing the work order. Some leaks require a welding shutdown to completely repair the leak. Welding shutdowns are typically taken every two to three years. Due to the highly explosive nature of hexane, a welding shutdown requires that the entire extraction plant be shut down and that all hexane be purged from all extraction plant vessels and piping before welding can be done in that area. For larger leaks that require welding to fully repair, a two-part epoxy/hardener compound or other appropriate material shall be used to patch the leak until it can be safely repaired via welding during a welding purge.
- (c) If a pump seal is found to be leaking, the seal shall be replaced as soon as possible. All extractor, distillation, and hexane pumps shall be checked daily for visible signs of leaking.
- (d) If a valve is found to be leaking, it is typically repaired by either tightening the flange bolts or tightening the packing gland bolts. Valves shall be replaced as necessary during scheduled plant shutdowns. All valves associated with the extractor and the distillation system shall be checked daily for visible signs of leaking.
- (e) Process piping shall be checked daily for signs of leaking on the basis of sight, sound and/or smell. If a leak is detected, repair shall be made almost immediately by one of the methods described above. Two-part epoxy/hardener compound or other appropriate material shall be used to completely stop the leak until a welding shutdown is scheduled.
- (f) Condensers and heat exchangers shall be checked daily for leaks on the basis of sight, sound and/or smell. If a leak is detected, repair shall be made almost immediately by the same methods used to repair leaks in process piping.
- (g) Distillation process equipment shall be checked on a daily basis, and leaks shall be repaired immediately by the same methods used to repair leaks in process piping. Since the distillation system operates under moderate vacuum, most leaks are easily detectable from audible signs (i.e. air being drawn into the vessel).

- (h) The extractor and the DTDC both shall be checked daily for leaks on the basis of sight, sound and/or smell. Key areas to inspect for leaks are sight-glass windows, entry doors, and shaft seals on the extractor drive and the DT rotary valve. However, leaks detected in these areas cannot be repaired until a scheduled shutdown. In these cases, either the gaskets or the seals shall be replaced as necessary.
  
- (i) The following records shall be maintained for leak inspections:
  - (A) Equipment inspected;
  - (B) Date and time of inspection;
  - (C) Determination of whether a leak was detected; and
  - (D) Any appropriate comments.
  
- (j) If a leak is detected, the following records shall be maintained:
  - (A) The equipment, operator, and instrument identification number;
  - (B) Date of repair;
  - (C) Date of maintenance recheck if repaired; and
  - (D) Any appropriate comments.

**Attachment B**  
**To**  
**T023-26991-00011**

**Subpart Db—Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units**

**Source:** 72 FR 32742, June 13, 2007, unless otherwise noted.

**§ 60.40b Applicability and delegation of authority.**

(a) The affected facility to which this subpart applies is each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984, and that has a heat input capacity from fuels combusted in the steam generating unit of greater than 29 megawatts (MW) (100 million British thermal units per hour (MMBtu/hr)).

(b) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1984, but on or before June 19, 1986, is subject to the following standards:

(1) Coal-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the particulate matter (PM) and nitrogen oxides (NO<sub>x</sub>) standards under this subpart.

(2) Coal-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are subject to the PM and NO<sub>x</sub> standards under this subpart and to the sulfur dioxide (SO<sub>2</sub>) standards under subpart D (§60.43).

(3) Oil-fired affected facilities having a heat input capacity between 29 and 73 MW (100 and 250 MMBtu/hr), inclusive, are subject to the NO<sub>x</sub> standards under this subpart.

(4) Oil-fired affected facilities having a heat input capacity greater than 73 MW (250 MMBtu/hr) and meeting the applicability requirements under subpart D (Standards of performance for fossil-fuel-fired steam generators; §60.40) are also subject to the NO<sub>x</sub> standards under this subpart and the PM and SO<sub>2</sub> standards under subpart D (§60.42 and §60.43).

(c) Affected facilities that also meet the applicability requirements under subpart J (Standards of performance for petroleum refineries; §60.104) are subject to the PM and NO<sub>x</sub> standards under this subpart and the SO<sub>2</sub> standards under subpart J (§60.104).

(d) Affected facilities that also meet the applicability requirements under subpart E (Standards of performance for incinerators; §60.50) are subject to the NO<sub>x</sub> and PM standards under this subpart.

(e) Steam generating units meeting the applicability requirements under subpart Da (Standards of performance for electric utility steam generating units; §60.40Da) are not subject to this subpart.

(f) Any change to an existing steam generating unit for the sole purpose of combusting gases containing total reduced sulfur (TRS) as defined under §60.281 is not considered a modification under §60.14 and the steam generating unit is not subject to this subpart.

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

(1) Section 60.44b(f).

(2) Section 60.44b(g).

(3) Section 60.49b(a)(4).

(h) Any affected facility that meets the applicability requirements and is subject to subpart Ea, subpart Eb, or subpart AAAA of this part is not covered by this subpart.

(i) Heat recovery steam generators that are associated with combined cycle gas turbines and that meet the applicability requirements of subpart GG or KKKK of this part are not subject to this subpart. This subpart will continue to apply to all other heat recovery steam generators that are capable of combusting more than 29 MW (100 MMBtu/hr) heat input of fossil fuel. If the heat recovery steam generator is subject to this subpart, only emissions resulting from combustion of fuels in the steam generating unit are subject to this subpart. (The gas turbine emissions are subject to subpart GG or KKKK, as applicable, of this part.)

(j) Any affected facility meeting the applicability requirements under paragraph (a) of this section and commencing construction, modification, or reconstruction after June 19, 1986 is not subject to subpart D (Standards of Performance for Fossil-Fuel-Fired Steam Generators, §60.40).

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

### **§ 60.41b 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 the fuels listed in §60.42b(a), §60.43b(a), or §60.44b(a), as applicable, during a calendar year and the potential heat input to the steam generating unit had it been operated for 8,760 hours during a calendar year at the maximum steady state 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 in a calendar year.

*Byproduct/waste* means any liquid or gaseous substance produced at chemical manufacturing plants, petroleum refineries, or pulp and paper mills (except natural gas, distillate oil, or residual oil) and combusted in a steam generating unit for heat recovery or for disposal. Gaseous substances with carbon dioxide (CO<sub>2</sub>) levels greater than 50 percent or carbon monoxide levels greater than 10 percent are not byproduct/waste for the purpose of this subpart.

*Chemical manufacturing plants* mean industrial plants that are classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 28.

*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, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, coke oven gas, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

*Coal refuse* means any byproduct 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 kJ/kg (6,000 Btu/lb) on a dry basis.

*Cogeneration*, also known as combined heat and power, means a facility that simultaneously produces both electric (or mechanical) and useful thermal energy from the same primary energy source.

*Coke oven gas* means the volatile constituents generated in the gaseous exhaust during the carbonization of bituminous coal to form coke.

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

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

*Distillate oil* means fuel oils that contain 0.05 weight percent nitrogen or less and comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Dry flue gas desulfurization technology* means a SO<sub>2</sub> control system that is located downstream of the steam generating unit and 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 slurries or solutions used in dry flue gas desulfurization technology include but are not limited to lime and sodium.

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

*Emerging technology* means any SO<sub>2</sub> control system that is not defined as a conventional technology under this section, and for which the owner or operator of the facility has applied to the Administrator and received approval to operate as an emerging technology under §60.49b(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 combustion of fuel in a bed or series of beds (including but not limited to bubbling bed units and circulating bed units) of limestone aggregate (or other sorbent materials) in which these materials are forced upward by the flow of combustion air and the gaseous products of combustion.

*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.

*Full capacity* means operation of the steam generating unit at 90 percent or more of the maximum steady-state design heat input capacity.

*Gaseous fuel* means any fuel that is present as a gas at ISO conditions.

*Gross output* means the gross useful work performed by the steam generated. For units generating only electricity, the gross useful work performed is the gross electrical output from the turbine/generator set. For cogeneration units, the gross useful work performed is the gross electrical or mechanical output plus 75 percent of the useful thermal output measured relative to ISO conditions that is not used to generate additional electrical or mechanical output (i.e., steam delivered to an industrial process).

*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 gas turbines, internal combustion engines, kilns, etc.

*Heat release rate* means the steam generating unit design heat input capacity (in MW or Btu/hr) divided by the furnace volume (in cubic meters or cubic feet); the furnace volume is that volume bounded by the front furnace wall where the burner is located, the furnace side waterwall, and extending to the level just below or in front of the first row of convection pass tubes.

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

*High heat release rate* means a heat release rate greater than 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hr-ft<sup>3</sup>).

*ISO Conditions* means a temperature of 288 Kelvin, a relative humidity of 60 percent, and a pressure of 101.3 kilopascals.

*Lignite* means a type of coal classified as lignite A or lignite B by the American Society of Testing and Materials in ASTM D388 (incorporated by reference, see §60.17).

*Low heat release rate* means a heat release rate of 730,000 J/sec-m<sup>3</sup> (70,000 Btu/hr-ft<sup>3</sup>) or less.

*Mass-feed stoker steam generating unit* means a steam generating unit where solid fuel is introduced directly into a retort or is fed directly onto a grate where it is combusted.

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

*Municipal-type solid waste* means refuse, more than 50 percent of which is waste consisting of a mixture of paper, wood, yard wastes, food wastes, plastics, leather, rubber, and other combustible materials, and noncombustible materials such as glass and rock.

*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 gas, as defined by the American Society for Testing and Materials in ASTM D1835 (incorporated by reference, see §60.17).

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

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

*Petroleum refinery* means industrial plants as classified by the Department of Commerce under Standard Industrial Classification (SIC) Code 29.

*Potential sulfur dioxide emission rate* means the theoretical SO<sub>2</sub> 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.

*Pulp and paper mills* means industrial plants that are classified by the Department of Commerce under North American Industry Classification System (NAICS) Code 322 or Standard Industrial Classification (SIC) Code 26.

*Pulverized coal-fired steam generating unit* means a steam generating unit in which pulverized coal is introduced into an air stream that carries the coal to the combustion chamber of the steam generating unit where it is fired in suspension. This includes both conventional pulverized coal-fired and micropulverized coal-fired steam generating units. Residual oil means crude oil, fuel oil numbers 1 and 2 that have a nitrogen content greater than 0.05 weight percent, and all fuel oil numbers 4, 5 and 6, as defined by the American Society of Testing and Materials in ASTM D396 (incorporated by reference, see §60.17).

*Spreader stoker steam generating unit* means a steam generating unit in which solid fuel is introduced to the combustion zone by a mechanism that throws the fuel onto a grate from above. Combustion takes place both in suspension and on the grate.

*Steam generating unit* means a device that combusts any fuel or byproduct/waste and produces steam or heats water or any other heat transfer medium. This term includes any municipal-type solid waste incinerator with a heat recovery steam generating unit or any steam generating unit that combusts fuel and is part of a cogeneration system or a combined cycle system. This term does not include process heaters as they are 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.

*Very low sulfur oil* means for units constructed, reconstructed, or modified on or before February 28, 2005, an oil that contains no more than 0.5 weight percent sulfur or that, when combusted without SO<sub>2</sub> emission control, has a SO<sub>2</sub> emission rate equal to or less than 215 ng/J (0.5 lb/MMBtu) heat input. For units constructed, reconstructed, or modified after February 28, 2005, *very low sulfur oil* means an oil that contains no more than 0.3 weight percent sulfur or that, when combusted without SO<sub>2</sub> emission control, has a SO<sub>2</sub> emission rate equal to or less than 140 ng/J (0.32 lb/MMBtu) heat input.

*Wet flue gas desulfurization technology* means a SO<sub>2</sub> control system that is located downstream of the steam generating unit and removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gas with an alkaline slurry or solution and forming a liquid material. This definition applies to devices where the aqueous liquid material product of this contact is subsequently converted to other forms. Alkaline reagents used in wet flue gas desulfurization technology include, but are not limited to, lime, limestone, and sodium.

*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 SO<sub>2</sub>.

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

#### **§ 60.42b Standard for sulfur dioxide (SO<sub>2</sub>).**

(a) Except as provided in paragraphs (b), (c), (d), or (k) of this section, on and after the date on which the performance test is completed or required to be completed under §60.8, whichever 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 oil shall cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction) and the emission limit determined according to the following formula:

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

Where:

E<sub>s</sub>= SO<sub>2</sub> emission limit, in ng/J or lb/MMBtu heat input;

K<sub>a</sub>= 520 ng/J (or 1.2 lb/MMBtu);

K<sub>b</sub>= 340 ng/J (or 0.80 lb/MMBtu);

$H_a$  = Heat input from the combustion of coal, in J (MMBtu); and

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

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 the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(b) On and after the date on which the 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 refuse alone in a fluidized bed combustion steam generating unit shall cause to be discharged into the atmosphere any gases that contain  $SO_2$  in excess of 87 ng/J (0.20 lb/MMBtu) or 20 percent (0.20) of the potential  $SO_2$  emission rate (80 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input. If coal or oil is fired with coal refuse, the affected facility is subject to paragraph (a) or (d) of this section, as applicable.

(c) On and after the date on which the performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that combusts coal or oil, either alone or in combination with any other fuel, and that uses an emerging technology for the control of  $SO_2$  emissions, shall cause to be discharged into the atmosphere any gases that contain  $SO_2$  in excess of 50 percent of the potential  $SO_2$  emission rate (50 percent reduction) and that contain  $SO_2$  in excess of the emission limit determined according to the following formula:

$$E_s = \frac{(K_c H_c + K_d H_d)}{(H_c + H_d)}$$

Where:

$E_s$  =  $SO_2$  emission limit, in ng/J or lb/MM Btu heat input;

$K_c$  = 260 ng/J (or 0.60 lb/MMBtu);

$K_d$  = 170 ng/J (or 0.40 lb/MMBtu);

$H_c$  = Heat input from the combustion of coal, in J (MMBtu); and

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

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 the combustion of natural gas, wood, municipal-type solid waste, or other fuels, or from the heat input derived from exhaust gases from other sources, such as gas turbines, internal combustion engines, kilns, etc.

(d) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005 and listed in paragraphs (d)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere any gases that contain  $SO_2$  in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.5 lb/MMBtu) heat input if the affected facility combusts oil other than very low sulfur oil. Percent reduction requirements are not applicable to affected facilities under paragraphs (d)(1), (2), (3) or (4) of this section.

(1) Affected facilities that have an annual capacity factor for coal and oil of 30 percent (0.30) or less and are subject to a federally enforceable permit limiting the operation of the affected facility to an annual capacity factor for coal and oil of 30 percent (0.30) or less;

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

(3) Affected facilities combusting coal or oil, alone or in combination with any fuel, 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 and oil in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from the exhaust gases entering the duct burner; or

(4) The affected facility burns coke oven gas alone or in combination with natural gas or very low sulfur distillate oil.

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

(f) Except as provided in paragraph (j)(2) of this section, compliance with the emission limits or fuel oil sulfur limits under this section is determined on a 24-hour average basis for affected facilities that (1) have a federally enforceable permit limiting the annual capacity factor for oil to 10 percent or less, (2) combust only very low sulfur oil, and (3) do not combust any other fuel.

(g) Except as provided in paragraph (i) of this section and §60.45b(a), the SO<sub>2</sub> emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

(h) Reductions in the potential SO<sub>2</sub> emission rate through fuel pretreatment are not credited toward the percent reduction requirement under paragraph (c) of this section unless:

(1) Fuel pretreatment results in a 50 percent or greater reduction in potential SO<sub>2</sub> emissions and

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

(i) An affected facility subject to paragraph (a), (b), or (c) of this section may combust very low sulfur oil or natural gas when the SO<sub>2</sub> control system is not being operated because of malfunction or maintenance of the SO<sub>2</sub> control system.

(j) Percent reduction requirements are not applicable to affected facilities combusting only very low sulfur oil. The owner or operator of an affected facility combusting very low sulfur oil shall demonstrate that the oil meets the definition of very low sulfur oil by: (1) Following the performance testing procedures as described in §60.45b(c) or §60.45b(d), and following the monitoring procedures as described in §60.47b(a) or §60.47b(b) to determine SO<sub>2</sub> emission rate or fuel oil sulfur content; or (2) maintaining fuel records as described in §60.49b(r).

(k)(1) Except as provided in paragraphs (k)(2), (k)(3), and (k)(4) of this section, 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, natural gas, a mixture of these fuels, or a mixture of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 8 percent (0.08) of the potential SO<sub>2</sub> emission rate (92 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

(2) Units firing only very low sulfur oil and/or a mixture of gaseous fuels with a potential SO<sub>2</sub> emission rate of 140 ng/J (0.32 lb/MMBtu) heat input or less are exempt from the SO<sub>2</sub> emissions limit in paragraph 60.42b(k)(1).

(3) Units that are located in a noncontinental area and that combust coal or oil shall not discharge any gases that contain SO<sub>2</sub> in excess of 520 ng/J (1.2 lb/MMBtu) heat input if the affected facility combusts coal, or 215 ng/J (0.50 lb/MMBtu) heat input if the affected facility combusts oil.

(4) As an alternative to meeting the requirements under paragraph (k)(1) of this section, modified facilities that combust coal or a mixture of coal with other fuels shall not cause to be discharged into the atmosphere any gases that contain SO<sub>2</sub> in excess of 87 ng/J (0.20 lb/MMBtu) heat input or 10 percent (0.10) of the potential SO<sub>2</sub> emission rate (90 percent reduction) and 520 ng/J (1.2 lb/MMBtu) heat input.

**§ 60.43b Standard for particulate matter (PM).**

(a) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever 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, 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, (i) If the affected facility combusts only coal, or

(ii) If the affected facility combusts coal and 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 and other fuels and 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.

(3) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts coal or coal and other fuels and

(i) Has an annual capacity factor for coal or coal and other fuels of 30 percent (0.30) or less,

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less,

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for coal or coal and other solid fuels, and

(iv) Construction of the affected facility commenced after June 19, 1984, and before November 25, 1986.

(4) An affected facility burning coke oven gas alone or in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) for reducing PM or SO<sub>2</sub> emissions is not subject to the PM limits under §60.43b(a).

(b) On and after the date on which the performance test is completed or required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts oil (or mixtures of oil with other fuels) and uses a conventional or emerging technology to reduce SO<sub>2</sub> emissions 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.

(c) On and after the date on which the initial performance test is completed or is required to be completed under §60.8, whichever comes first, no owner or operator of an affected facility that commenced construction, reconstruction, or modification on or before February 28, 2005, and that combusts wood, or wood with other fuels, except coal, shall cause to be discharged from that affected facility any gases that contain PM in excess of the following emission limits:

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

(2) 86 ng/J (0.20 lb/MMBtu) heat input if (i) The affected facility has an annual capacity factor of 30 percent (0.30) or less for wood;

(ii) Is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for wood; and

(iii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less.

(d) 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 combusts municipal-type solid waste or mixtures of municipal-type solid waste with other fuels, 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) 43 ng/J (0.10 lb/MMBtu) heat input;

(i) If the affected facility combusts only municipal-type solid waste; or

(ii) If the affected facility combusts municipal-type solid waste and other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.

(2) 86 ng/J (0.20 lb/MMBtu) heat input if the affected facility combusts municipal-type solid waste or municipal-type solid waste and other fuels; and

(i) Has an annual capacity factor for municipal-type solid waste and other fuels of 30 percent (0.30) or less;

(ii) Has a maximum heat input capacity of 73 MW (250 MMBtu/hr) or less;

(iii) Has a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor of 30 percent (0.30) or less for municipal-type solid waste, or municipal-type solid waste and other fuels; and

(iv) Construction of the affected facility commenced after June 19, 1984, but on or before November 25, 1986.

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum heat input capacity.

(f) 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 combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere 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.

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

(h)(1) Except as provided in paragraphs (h)(2), (h)(3), (h)(4), and (h)(5) of this section, 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 commenced 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 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,

(2) As an alternative to meeting the requirements of paragraph (h)(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, 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 maximum heat input capacity of 73 MW (250 MMBtu/h) or less 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) 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 maximum heat input capacity greater than 73 MW (250 MMBtu/h) shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of 37 ng/J (0.085 lb/MMBtu) heat input.

(5) 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, 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 0.3 weight percent sulfur, coke oven gas, a mixture of these fuels, or either fuel (or a mixture of these fuels) in combination with other fuels not subject to a PM standard under §60.43b and not using a post-combustion technology (except a wet scrubber) to reduce SO<sub>2</sub> or PM emissions is not subject to the PM limits under §60.43b(h)(1).

**§ 60.44b Standard for nitrogen oxides (NOX).**

(a) Except as provided under paragraphs (k) and (l) of this section, 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 is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub>(expressed as NO<sub>2</sub>) in excess of the following emission limits:

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO <sub>2</sub> ) heat input	
	ng/J	lb/MMBtu
(1) Natural gas and distillate oil, except (4):		
(i) Low heat release rate	43	0.10
(ii) High heat release rate	86	0.20
(2) Residual oil:		
(i) Low heat release rate	130	0.30
(ii) High heat release rate	170	0.40
(3) Coal:		
(i) Mass-feed stoker	210	0.50

Fuel/steam generating unit type	Nitrogen oxide emission limits (expressed as NO <sub>2</sub> ) heat input	
	ng/J	lb/MMBtu
(ii) Spreader stoker and fluidized bed combustion	260	0.60
(iii) Pulverized coal	300	0.70
(iv) Lignite, except (v)	260	0.60
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace	340	0.80
(vi) Coal-derived synthetic fuels	210	0.50
(4) Duct burner used in a combined cycle system:		
(i) Natural gas and distillate oil	86	0.20
(ii) Residual oil	170	0.40

(b) Except as provided under paragraphs (k) and (l) of this section, 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 simultaneously combusts mixtures of coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> in excess of a limit determined by the use of the following formula:

$$E_n = \frac{(EL_g H_g) + (EL_o H_o) + (EL_c H_c)}{(H_g + H_o + H_c)}$$

Where:

E<sub>n</sub>= NO<sub>x</sub>emission limit (expressed as NO<sub>2</sub>), ng/J (lb/MMBtu);

EL<sub>g</sub>= Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H<sub>g</sub>= Heat input from combustion of natural gas or distillate oil, J (MMBtu);

EL<sub>o</sub>= Appropriate emission limit from paragraph (a)(2) for combustion of residual oil, ng/J (lb/MMBtu);

H<sub>o</sub>= Heat input from combustion of residual oil, J (MMBtu);

EL<sub>c</sub>= Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu);  
 and

H<sub>c</sub>= Heat input from combustion of coal, J (MMBtu).

(c) Except as provided under paragraph (l) of this section, 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 simultaneously combusts coal or oil, or a mixture of these fuels with natural gas, and wood, municipal-type solid waste, or any other fuel shall cause to be discharged into the atmosphere any gases that contain NO<sub>x</sub> in excess of the emission limit for the coal or oil, or mixtures of these fuels with natural gas combusted in the affected facility, as determined pursuant to paragraph (a) or

(b) of this section, unless the affected facility has an annual capacity factor for coal or oil, or mixture of these fuels with natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, or a mixture of these fuels with natural gas.

(d) 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 simultaneously combusts natural gas with wood, municipal-type solid waste, or other solid fuel, except coal, shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> in excess of 130 ng/J (0.30 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less for natural gas.

(e) Except as provided under paragraph (l) of this section, 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 simultaneously combusts coal, oil, or natural gas with byproduct/waste shall cause to be discharged into the atmosphere any gases that contain NO<sub>x</sub> in excess of the emission limit determined by the following formula unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the affected facility to an annual capacity factor of 10 percent (0.10) or less:

$$E_n = \frac{(EL_g H_g) + (EL_o H_o) + (EL_c H_c)}{(H_g + H_o + H_c)}$$

Where:

E<sub>n</sub> = NO<sub>x</sub> emission limit (expressed as NO<sub>2</sub>), ng/J (lb/MMBtu);

EL<sub>g</sub> = Appropriate emission limit from paragraph (a)(1) for combustion of natural gas or distillate oil, ng/J (lb/MMBtu);

H<sub>g</sub> = Heat input from combustion of natural gas, distillate oil and gaseous byproduct/waste, J (MMBtu);

EL<sub>o</sub> = Appropriate emission limit from paragraph (a)(2) for combustion of residual oil and/or byproduct/waste, ng/J (lb/MMBtu);

H<sub>o</sub> = Heat input from combustion of residual oil, J (MMBtu);

EL<sub>c</sub> = Appropriate emission limit from paragraph (a)(3) for combustion of coal, ng/J (lb/MMBtu);  
and

H<sub>c</sub> = Heat input from combustion of coal, J (MMBtu).

(f) Any owner or operator of an affected facility that combusts byproduct/waste with either natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility to establish a NO<sub>x</sub> emission limit that shall apply specifically to that affected facility when the byproduct/waste is combusted. The petition shall include sufficient and appropriate data, as determined by the Administrator, such as NO<sub>x</sub> emissions from the affected facility, waste composition (including nitrogen content), and combustion conditions to allow the Administrator to confirm that the affected facility is unable to comply with the emission limits in paragraph (e) of this section and to determine the appropriate emission limit for the affected facility.

(1) Any owner or operator of an affected facility petitioning for a facility-specific NO<sub>x</sub>emission limit under this section shall:

(i) Demonstrate compliance with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, by conducting a 30-day performance test as provided in §60.46b(e). During the performance test only natural gas, distillate oil, or residual oil shall be combusted in the affected facility; and

(ii) Demonstrate that the affected facility is unable to comply with the emission limits for natural gas and distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, when gaseous or liquid byproduct/waste is combusted in the affected facility under the same conditions and using the same technological system of emission reduction applied when demonstrating compliance under paragraph (f)(1)(i) of this section.

(2) The NO<sub>x</sub>emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, shall be applicable to the affected facility until and unless the petition is approved by the Administrator. If the petition is approved by the Administrator, a facility-specific NO<sub>x</sub>emission limit will be established at the NO<sub>x</sub>emission level achievable when the affected facility is combusting oil or natural gas and byproduct/waste in a manner that the Administrator determines to be consistent with minimizing NO<sub>x</sub>emissions. In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO<sub>x</sub>limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(g) Any owner or operator of an affected facility that combusts hazardous waste (as defined by 40 CFR part 261 or 40 CFR part 761) with natural gas or oil may petition the Administrator within 180 days of the initial startup of the affected facility for a waiver from compliance with the NO<sub>x</sub>emission limit that applies specifically to that affected facility. The petition must include sufficient and appropriate data, as determined by the Administrator, on NO<sub>x</sub>emissions from the affected facility, waste destruction efficiencies, waste composition (including nitrogen content), the quantity of specific wastes to be combusted and combustion conditions to allow the Administrator to determine if the affected facility is able to comply with the NO<sub>x</sub>emission limits required by this section. The owner or operator of the affected facility shall demonstrate that when hazardous waste is combusted in the affected facility, thermal destruction efficiency requirements for hazardous waste specified in an applicable federally enforceable requirement preclude compliance with the NO<sub>x</sub>emission limits of this section. The NO<sub>x</sub>emission limits for natural gas or distillate oil in paragraph (a)(1) of this section or for residual oil in paragraph (a)(2) or (l)(1) of this section, as appropriate, are applicable to the affected facility until and unless the petition is approved by the Administrator. (See 40 CFR 761.70 for regulations applicable to the incineration of materials containing polychlorinated biphenyls (PCB's).) In lieu of amending this subpart, a letter will be sent to the facility describing the facility-specific NO<sub>x</sub>limit. The facility shall use the compliance procedures detailed in the letter and make the letter available to the public. If the Administrator determines it is appropriate, the conditions and requirements of the letter can be reviewed and changed at any point.

(h) For purposes of paragraph (i) of this section, the NO<sub>x</sub>standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

(j) Compliance with the emission limits under this section is determined on a 24-hour average basis for the initial performance test and on a 3-hour average basis for subsequent performance tests for any affected facilities that:

(1) Combust, alone or in combination, only natural gas, distillate oil, or residual oil with a nitrogen content of 0.30 weight percent or less;

(2) Have a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less; and

(3) Are subject to a federally enforceable requirement limiting operation of the affected facility to the firing of natural gas, distillate oil, and/or residual oil with a nitrogen content of 0.30 weight percent or less and limiting operation of the affected facility to a combined annual capacity factor of 10 percent or less for natural gas, distillate oil, and residual oil with a nitrogen content of 0.30 weight percent or less.

(k) Affected facilities that meet the criteria described in paragraphs (j)(1), (2), and (3) of this section, and that have a heat input capacity of 73 MW (250 MMBtu/hr) or less, are not subject to the NO<sub>x</sub> emission limits under this section.

(l) 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 commenced construction or reconstruction after July 9, 1997 shall cause to be discharged into the atmosphere from that affected facility any gases that contain NO<sub>x</sub> (expressed as NO<sub>2</sub>) in excess of the following limits:

(1) If the affected facility combusts coal, oil, or natural gas, or a mixture of these fuels, or with any other fuels: A limit of 86 ng/J (0.20 lb/MMBtu) heat input unless the affected facility has an annual capacity factor for coal, oil, and natural gas of 10 percent (0.10) or less and is subject to a federally enforceable requirement that limits operation of the facility to an annual capacity factor of 10 percent (0.10) or less for coal, oil, and natural gas; or

(2) If the affected facility has a low heat release rate and combusts natural gas or distillate oil in excess of 30 percent of the heat input on a 30-day rolling average from the combustion of all fuels, a limit determined by use of the following formula:

$$E_n = \frac{(0.10 \times H_{go}) + (0.20 \times H_r)}{(H_{go} + H_r)}$$

Where:

E<sub>n</sub> = NO<sub>x</sub> emission limit, (lb/MMBtu);

H<sub>go</sub> = 30-day heat input from combustion of natural gas or distillate oil; and

H<sub>r</sub> = 30-day heat input from combustion of any other fuel.

(3) After February 27, 2006, units where more than 10 percent of total annual output is electrical or mechanical may comply with an optional limit of 270 ng/J (2.1 lb/MWh) gross energy output, based on a 30-day rolling average. Units complying with this output-based limit must demonstrate compliance according to the procedures of §60.48Da(i) of subpart Da of this part, and must monitor emissions according to §60.49Da(c), (k), through (n) of subpart Da of this part.

#### **§ 60.45b Compliance and performance test methods and procedures for sulfur dioxide.**

(a) The SO<sub>2</sub> emission standards under §60.42b apply at all times. Facilities burning coke oven gas alone or in combination with any other gaseous fuels or distillate oil and complying with the fuel based limit under §60.42b(d) or §60.42b(k)(2) are allowed to exceed the limit 30 operating days per calendar year for by-product plant maintenance.

(b) In conducting the performance tests required under §60.8, the owner or operator shall use the methods and procedures in appendix A (including fuel certification and sampling) of this part or the methods and procedures as specified in this section, except as provided in §60.8(b). 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.

(c) The owner or operator of an affected facility shall conduct performance tests to determine compliance with the percent of potential SO<sub>2</sub>emission rate (% P<sub>s</sub>) and the SO<sub>2</sub>emission rate (E<sub>s</sub>) pursuant to §60.42b following the procedures listed below, except as provided under paragraph (d) and (k) of this section.

(1) The initial performance test shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the SO<sub>2</sub>standards 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 initial startup of the facility.

(2) If only coal, only oil, or a mixture of coal and oil is combusted, the following procedures are used:

(i) The procedures in Method 19 of appendix A of this part are used to determine the hourly SO<sub>2</sub>emission rate (E<sub>ho</sub>) and the 30-day average emission rate (E<sub>ao</sub>). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS) of §60.47b (a) or (b).

(ii) The percent of potential SO<sub>2</sub>emission rate (%P<sub>s</sub>) emitted to the atmosphere is computed using the following formula:

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

Where:

%P<sub>s</sub>= Potential SO<sub>2</sub>emission rate, percent;

%R<sub>g</sub>= SO<sub>2</sub>removal efficiency of the control device as determined by Method 19 of appendix A of this part, in percent; and

%R<sub>f</sub>= SO<sub>2</sub>removal efficiency of fuel pretreatment as determined by Method 19 of appendix A of this part, in percent.

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

(i) An adjusted hourly SO<sub>2</sub>emission rate (E<sub>ho</sub><sup>o</sup>) is used in Equation 19–19 of Method 19 of appendix A of this part to compute an adjusted 30-day average emission rate (E<sub>ao</sub><sup>o</sup>). The E<sub>ho</sub><sup>o</sup> is computed using the following formula:

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

Where:

E<sub>ho</sub><sup>o</sup> = Adjusted hourly SO<sub>2</sub>emission rate, ng/J (lb/MMBtu);

E<sub>ho</sub>= Hourly SO<sub>2</sub>emission rate, ng/J (lb/MMBtu);

E<sub>w</sub>= SO<sub>2</sub>concentration in fuels other than coal and oil combusted in the affected facility, as determined by the fuel sampling and analysis procedures in Method 19 of appendix A of this part, ng/J (lb/MMBtu). The value E<sub>w</sub>for each fuel lot is used for each hourly average during the time that the lot is being combusted; and

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

(ii) To compute the percent of potential SO<sub>2</sub> emission rate (%P<sub>s</sub>), an adjusted %R<sub>g</sub> (%R<sub>g</sub><sup>o</sup>) is computed from the adjusted E<sub>ao</sub><sup>o</sup> from paragraph (b)(3)(i) of this section and an adjusted average SO<sub>2</sub> inlet rate (E<sub>ai</sub><sup>o</sup>) using the following formula:

$$\%R_g^o = 100 \left( 1.0 - \frac{E_{ao}^o}{E_{ai}^o} \right)$$

To compute E<sub>ai</sub><sup>o</sup>, an adjusted hourly SO<sub>2</sub> inlet rate (E<sub>hi</sub><sup>o</sup>) is used. The E<sub>hi</sub><sup>o</sup> is computed using the following formula:

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

Where:

E<sub>hi</sub><sup>o</sup> = Adjusted hourly SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu); and

E<sub>hi</sub> = Hourly SO<sub>2</sub> inlet rate, ng/J (lb/MMBtu).

(4) The owner or operator of an affected facility subject to paragraph (b)(3) of this section does not have to measure parameters E<sub>w</sub> or X<sub>k</sub> if the owner or operator elects to assume that X<sub>k</sub> = 1.0. Owners or operators of affected facilities who assume X<sub>k</sub> = 1.0 shall:

(i) Determine %P<sub>s</sub> following the procedures in paragraph (c)(2) of this section; and

(ii) Sulfur dioxide emissions (E<sub>s</sub>) are considered to be in compliance with SO<sub>2</sub> emission limits under §60.42b.

(5) The owner or operator of an affected facility that qualifies under the provisions of §60.42b(d) does not have to measure parameters E<sub>w</sub> or X<sub>k</sub> under paragraph (b)(3) of this section if the owner or operator of the affected facility elects to measure SO<sub>2</sub> emission rates of the coal or oil following the fuel sampling and analysis procedures under Method 19 of appendix A of this part.

(d) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility that combusts only very low sulfur oil, has an annual capacity factor for oil of 10 percent (0.10) or less, and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for oil of 10 percent (0.10) or less shall:

(1) Conduct the initial performance test over 24 consecutive steam generating unit operating hours at full load;

(2) Determine compliance with the standards after the initial performance test based on the arithmetic average of the hourly emissions data during each steam generating unit operating day if a CEMS is used, or based on a daily average if Method 6B of appendix A of this part or fuel sampling and analysis procedures under Method 19 of appendix A of this part are used.

(e) The owner or operator of an affected facility subject to §60.42b(d)(1) shall demonstrate the maximum design capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. This demonstration will be made during the initial performance test and a subsequent demonstration may be requested at any other time. If the 24-hour average firing rate for the affected facility is less than the maximum design capacity provided by the manufacturer of the affected facility, the 24-hour average firing

rate shall be used to determine the capacity utilization rate for the affected facility, otherwise the maximum design capacity provided by the manufacturer is used.

(f) For the initial performance test required under §60.8, compliance with the SO<sub>2</sub> emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO<sub>2</sub> for the first 30 consecutive steam generating unit operating days, except as provided under paragraph (d) of this section. The initial performance test is the only test for which at least 30 days prior notice is required unless otherwise specified by the Administrator. The initial performance test is to be scheduled so that the first steam generating unit operating day of the 30 successive steam generating unit operating days is completed within 30 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of the facility. The boiler load during the 30-day period does not have to be the maximum design load, but must be representative of future operating conditions and include at least one 24-hour period at full load.

(g) After the initial performance test required under §60.8, compliance with the SO<sub>2</sub> emission limits and percent reduction requirements under §60.42b is based on the average emission rates and the average percent reduction for SO<sub>2</sub> for 30 successive steam generating unit operating days, except as provided under paragraph (d). A separate performance test is completed at the end of each steam generating unit operating day after the initial performance test, and a new 30-day average emission rate and percent reduction for SO<sub>2</sub> are calculated to show compliance with the standard.

(h) Except as provided under paragraph (i) of this section, the owner or operator of an affected facility shall use all valid SO<sub>2</sub> emissions data in calculating %P<sub>s</sub> and E<sub>h</sub> under paragraph (c), of this section whether or not the minimum emissions data requirements under §60.46b are achieved. All valid emissions data, including valid SO<sub>2</sub> emission data collected during periods of startup, shutdown and malfunction, shall be used in calculating %P<sub>s</sub> and E<sub>h</sub> pursuant to paragraph (c) of this section.

(i) During periods of malfunction or maintenance of the SO<sub>2</sub> control systems when oil is combusted as provided under §60.42b(i), emission data are not used to calculate %P<sub>s</sub> or E<sub>s</sub> under §60.42b(a), (b) or (c), however, the emissions data are used to determine compliance with the emission limit under §60.42b(i).

(j) The owner or operator of an affected facility that combusts very low sulfur oil is not subject to the compliance and performance testing requirements of this section if the owner or operator obtains fuel receipts as described in §60.49b(r).

(k) The owner or operator of an affected facility seeking to demonstrate compliance under §§60.42b(d)(4), 60.42b(j), and 60.42b(k)(2) shall follow the applicable procedures under §60.49b(r).

#### **§ 60.46b Compliance and performance test methods and procedures for particulate matter and nitrogen oxides.**

(a) The PM emission standards and opacity limits under §60.43b apply at all times except during periods of startup, shutdown, or malfunction. The NO<sub>x</sub> emission standards under §60.44b apply at all times.

(b) Compliance with the PM emission standards under §60.43b shall be determined through performance testing as described in paragraph (d) of this section, except as provided in paragraph (i) of this section.

(c) Compliance with the NO<sub>x</sub> emission standards under §60.44b shall be determined through performance testing under paragraph (e) or (f), or under paragraphs (g) and (h) of this section, as applicable.

(d) To determine compliance with the PM emission limits and opacity limits under §60.43b, the owner or operator of an affected facility shall conduct an initial performance test as required under §60.8, and shall conduct subsequent performance tests as requested by the Administrator, using the following procedures and reference methods:

(1) Method 3B of appendix A of this part is used for gas analysis when applying Method 5 or 17 of appendix A of this part.

(2) 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 shall be used at affected facilities without wet flue gas desulfurization (FGD) systems; and

(ii) Method 17 of appendix A of this part may be used at facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 °C (32 °F). The procedures of sections 2.1 and 2.3 of Method 5B of appendix A of this part may be used in Method 17 of appendix A of this part only if it is used after a wet FGD system. Do not use Method 17 of appendix A of this part after wet FGD systems if the effluent is saturated or laden with water droplets.

(iii) Method 5B of appendix A of this part is to be used only after wet FGD systems.

(3) Method 1 of appendix A of this part is used to select the sampling site and the number of traverse sampling points. The sampling time for each run is at least 120 minutes and the minimum sampling volume is 1.7 dscm (60 dscf) except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.

(4) For Method 5 of appendix A of this part, the temperature of the sample gas in the probe and filter holder is monitored and is maintained at  $160 \pm 14$  °C ( $320 \pm 25$  °F).

(5) For determination of PM emissions, the oxygen (O<sub>2</sub>) or CO<sub>2</sub> sample is 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.

(6) For each run using Method 5, 5B, or 17 of appendix A of this part, the emission rate expressed in ng/J heat input is determined using:

(i) The O<sub>2</sub> or CO<sub>2</sub> 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.

(7) Method 9 of appendix A of this part is used for determining the opacity of stack emissions.

(e) To determine compliance with the emission limits for NO<sub>x</sub> required under §60.44b, the owner or operator of an affected facility shall conduct the performance test as required under §60.8 using the continuous system for monitoring NO<sub>x</sub> under §60.48(b).

(1) For the initial compliance test, NO<sub>x</sub> from the steam generating unit are monitored for 30 successive steam generating unit operating days and the 30-day average emission rate is used to determine compliance with the NO<sub>x</sub> emission standards under §60.44b. The 30-day average emission rate is calculated as the average of all hourly emissions data recorded by the monitoring system during the 30-day test period.

(2) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility which combusts coal or which combusts residual oil having a nitrogen content greater than 0.30 weight percent shall determine compliance with the NO<sub>x</sub> emission standards under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub> emission data for the preceding 30 steam generating unit operating days.

(3) Following the date on which the initial performance test is completed or is required to be completed under §60.8, whichever date comes first, the owner or operator of an affected facility that has a heat input capacity greater than 73 MW (250 MMBtu/hr) and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall determine compliance with the NO<sub>x</sub> standards

under §60.44b on a continuous basis through the use of a 30-day rolling average emission rate. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub>emission data for the preceding 30 steam generating unit operating days.

(4) Following the date on which the initial 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 has a heat input capacity of 73 MW (250 MMBtu/hr) or less and that combusts natural gas, distillate oil, or residual oil having a nitrogen content of 0.30 weight percent or less shall upon request determine compliance with the NO<sub>x</sub>standards under §60.44b through the use of a 30-day performance test. During periods when performance tests are not requested, NO<sub>x</sub>emissions data collected pursuant to §60.48b(g)(1) or §60.48b(g)(2) are used to calculate a 30-day rolling average emission rate on a daily basis and used to prepare excess emission reports, but will not be used to determine compliance with the NO<sub>x</sub>emission standards. A new 30-day rolling average emission rate is calculated each steam generating unit operating day as the average of all of the hourly NO<sub>x</sub>emission data for the preceding 30 steam generating unit operating days.

(5) If the owner or operator of an affected facility that combusts residual oil does not sample and analyze the residual oil for nitrogen content, as specified in §60.49b(e), the requirements of §60.48b(g)(1) apply and the provisions of §60.48b(g)(2) are inapplicable.

(f) To determine compliance with the emissions limits for NO<sub>x</sub>required by §60.44b(a)(4) or §60.44b(l) for duct burners used in combined cycle systems, either of the procedures described in paragraph (f)(1) or (2) of this section may be used:

(1) The owner or operator of an affected facility shall conduct the performance test required under §60.8 as follows:

(i) The emissions rate (E) of NO<sub>x</sub>shall be computed using Equation 1 in this section:

$$E = E_{sg} + \left( \frac{H_g}{H_b} \right) (E_g - E_g) \quad (\text{Eq.1})$$

Where:

E = Emissions rate of NO<sub>x</sub>from the duct burner, ng/J (lb/MMBtu) heat input;

E<sub>sg</sub>= Combined effluent emissions rate, in ng/J (lb/MMBtu) heat input using appropriate F factor as described in Method 19 of appendix A of this part;

H<sub>g</sub>= Heat input rate to the combustion turbine, in J/hr (MMBtu/hr);

H<sub>b</sub>= Heat input rate to the duct burner, in J/hr (MMBtu/hr); and

E<sub>g</sub>= Emissions rate from the combustion turbine, in ng/J (lb/MMBtu) heat input calculated using appropriate F factor as described in Method 19 of appendix A of this part.

(ii) Method 7E of appendix A of this part shall be used to determine the NO<sub>x</sub>concentrations. Method 3A or 3B of appendix A of this part shall be used to determine O<sub>2</sub>concentration.

(iii) The owner or operator shall identify and demonstrate to the Administrator's satisfaction suitable methods to determine the average hourly heat input rate to the combustion turbine and the average hourly heat input rate to the affected duct burner.

(iv) Compliance with the emissions limits under §60.44b(a)(4) or §60.44b(l) is determined by the three-run average (nominal 1-hour runs) for the initial and subsequent performance tests; or

(2) The owner or operator of an affected facility may elect to determine compliance on a 30-day rolling average basis by using the CEMS specified under §60.48b for measuring NO<sub>x</sub> and O<sub>2</sub> and meet the requirements of §60.48b. The sampling site shall be located at the outlet from the steam generating unit. The NO<sub>x</sub> emissions rate at the outlet from the steam generating unit shall constitute the NO<sub>x</sub> emissions rate from the duct burner of the combined cycle system.

(g) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall demonstrate the maximum heat input capacity of the steam generating unit by operating the facility at maximum capacity for 24 hours. The owner or operator of an affected facility shall determine the maximum heat input capacity using the heat loss method described in sections 5 and 7.3 of the ASME *Power Test Codes* 4.1 (incorporated by reference, see §60.17). This demonstration of maximum heat input capacity shall be made during the initial performance test for affected facilities that meet the criteria of §60.44b(j). It shall be made within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial start-up of each facility, for affected facilities meeting the criteria of §60.44b(k). Subsequent demonstrations may be required by the Administrator at any other time. If this demonstration indicates that the maximum heat input capacity of the affected facility is less than that stated by the manufacturer of the affected facility, the maximum heat input capacity determined during this demonstration shall be used to determine the capacity utilization rate for the affected facility. Otherwise, the maximum heat input capacity provided by the manufacturer is used.

(h) The owner or operator of an affected facility described in §60.44b(j) that has a heat input capacity greater than 73 MW (250 MMBtu/hr) shall:

(1) Conduct an initial performance test as required under §60.8 over a minimum of 24 consecutive steam generating unit operating hours at maximum heat input capacity to demonstrate compliance with the NO<sub>x</sub> emission standards under §60.44b using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods; and

(2) Conduct subsequent performance tests once per calendar year or every 400 hours of operation (whichever comes first) to demonstrate compliance with the NO<sub>x</sub> emission standards under §60.44b over a minimum of 3 consecutive steam generating unit operating hours at maximum heat input capacity using Method 7, 7A, 7E of appendix A of this part, or other approved reference methods.

(i) The owner or operator of an affected facility seeking to demonstrate compliance under paragraph §60.43b(h)(5) shall follow the applicable procedures under §60.49b(r).

(j) In place of PM testing with EPA Reference Method 5, 5B, or 17 of appendix A 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 EPA Method 5, 5B, or 17 of appendix A of this part shall comply with the requirements specified in paragraphs (j)(1) through (j)(13) of this section.

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

(2) Notify the Administrator one 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 the 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 (j) 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 paragraphs (j)(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 (j)(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 (j)(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 O<sub>2</sub>(or CO<sub>2</sub>) data shall be collected concurrently (or within a 30-to 60-minute period) by both the continuous emission monitors and the test methods specified in paragraphs (j)(7)(i) of this section.

(i) For PM, EPA Reference Method 5, 5B, or 17 of appendix A of this part shall be used.

(ii) For O<sub>2</sub>(or CO<sub>2</sub>), EPA reference Method 3, 3A, or 3B of appendix A 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 per 30-day rolling average.

#### **§ 60.47b Emission monitoring for sulfur dioxide.**

(a) Except as provided in paragraphs (b), (f), and (h) of this section, the owner or operator of an affected facility subject to the SO<sub>2</sub>standards under §60.42b shall install, calibrate, maintain, and operate CEMS for measuring SO<sub>2</sub>concentrations and either O<sub>2</sub>or CO<sub>2</sub>concentrations and shall record the output of the systems. For units complying with the percent reduction standard, the SO<sub>2</sub>and either O<sub>2</sub>or CO<sub>2</sub>concentrations shall both be monitored at the inlet and outlet of the SO<sub>2</sub>control device. If the owner or operator has installed and certified SO<sub>2</sub>and O<sub>2</sub>or CO<sub>2</sub>CEMS according to the requirements of §75.20(c)(1) of this chapter and appendix A to part 75 of this chapter, and is continuing to meet the ongoing quality assurance requirements of §75.21 of this chapter and appendix B to part 75 of this chapter, those CEMS may be used to meet the requirements of this section, provided that:

(1) When relative accuracy testing is conducted, SO<sub>2</sub>concentration data and CO<sub>2</sub>(or O<sub>2</sub>) data are collected simultaneously; and

(2) In addition to meeting the applicable SO<sub>2</sub> and CO<sub>2</sub> (or O<sub>2</sub>) relative accuracy specifications in Figure 2 of appendix B to part 75 of this chapter, the relative accuracy (RA) standard in section 13.2 of Performance Specification 2 in appendix B to this part is met when the RA is calculated on a lb/MMBtu basis; and

(3) The reporting requirements of §60.49b are met. SO<sub>2</sub> and CO<sub>2</sub> (or O<sub>2</sub>) data used to meet the requirements of §60.49b shall not include substitute data values derived from the missing data procedures in subpart D of part 75 of this chapter, nor shall the SO<sub>2</sub> data have been bias adjusted according to the procedures of part 75 of this chapter.

(b) As an alternative to operating CEMS as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO<sub>2</sub> emissions and percent reduction by:

(1) Collecting coal or oil samples in an as-fired condition at the inlet to the steam generating unit and analyzing them for sulfur and heat content according to 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 SO<sub>2</sub> input rate, or

(2) Measuring SO<sub>2</sub> according to Method 6B of appendix A of this part at the inlet or outlet to the SO<sub>2</sub> 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 SO<sub>2</sub> and CO<sub>2</sub> measurement train operated at the candidate location and a second similar train operated according to the procedures in section 3.2 and the applicable procedures in section 7 of Performance Specification 2. Method 6B of appendix A of this part, Method 6A of appendix A of this part, or a combination of Methods 6 and 3 or 3B 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.

(3) A daily SO<sub>2</sub> emission rate, E<sub>D</sub>, shall be determined using the procedure described in Method 6A of appendix A of this part, section 7.6.2 (Equation 6A-8) and stated in ng/J (lb/MMBtu) heat input.

(4) The mean 30-day emission rate is calculated using the daily measured values in ng/J (lb/MMBtu) for 30 successive steam generating unit operating days using equation 19-20 of Method 19 of appendix A of this part.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler 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 or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average SO<sub>2</sub> emission rates measured by the CEMS required by paragraph (a) of this section and required under §60.13(h) is expressed in ng/J or lb/MMBtu heat input and is used to calculate the average emission rates under §60.42(b). Each 1-hour average SO<sub>2</sub> emission rate must be based on 30 or more minutes of steam generating unit operation. The hourly averages shall be calculated according to §60.13(h)(2). Hourly SO<sub>2</sub> emission rates are not calculated if the affected facility is operated less than 30 minutes in a given clock hour and are not counted toward determination of a steam generating unit operating day.

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

(1) Except as provided for in paragraph (e)(4) of this section, 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) Except as provided for in paragraph (e)(4) of this section, 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 combusting coal or oil, alone or in combination with other fuels, the span value of the SO<sub>2</sub>CEMS at the inlet to the SO<sub>2</sub>control device is 125 percent of the maximum estimated hourly potential SO<sub>2</sub>emissions of the fuel combusted, and the span value of the CEMS at the outlet to the SO<sub>2</sub>control device is 50 percent of the maximum estimated hourly potential SO<sub>2</sub>emissions of the fuel combusted. Alternatively, SO<sub>2</sub>span values determined according to section 2.1.1 in appendix A to part 75 of this chapter may be used.

(4) As an alternative to meeting the requirements of requirements of paragraphs (e)(1) and (e)(2) of this section, the owner or operator may elect to implement the following alternative data accuracy assessment procedures:

(i) For all required CO<sub>2</sub>and O<sub>2</sub>monitors and for SO<sub>2</sub>and NO<sub>x</sub>monitors with span values less than 100 ppm, the daily calibration error test and calibration adjustment procedures described in sections 2.1.1 and 2.1.3 of appendix B to part 75 of this chapter may be followed instead of the CD assessment procedures in Procedure 1, section 4.1 of appendix F to this part. If this option is selected, the data validation and out-of-control provisions in sections 2.1.4 and 2.1.5 of appendix B to part 75 of this chapter shall be followed instead of the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part. For the purposes of data validation under this subpart, the excessive CD and out-of-control criteria in Procedure 1, section 4.3 of appendix F to this part shall apply to SO<sub>2</sub>and NO<sub>x</sub>span values less than 100 ppm;

(ii) For all required CO<sub>2</sub>and O<sub>2</sub>monitors and for SO<sub>2</sub>and NO<sub>x</sub>monitors with span values greater than 30 ppm, quarterly linearity checks may be performed in accordance with section 2.2.1 of appendix B to part 75 of this chapter, instead of performing the cylinder gas audits (CGAs) described in Procedure 1, section 5.1.2 of appendix F to this part. If this option is selected: The frequency of the linearity checks shall be as specified in section 2.2.1 of appendix B to part 75 of this chapter; the applicable linearity specifications in section 3.2 of appendix A to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.2.3 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.2.4 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the cylinder gas audits described in Procedure 1, section 5.1.2 of appendix F to this part shall be performed for SO<sub>2</sub>and NO<sub>x</sub>span values less than or equal to 30 ppm; and

(iii) For SO<sub>2</sub>, CO<sub>2</sub>, and O<sub>2</sub>monitoring systems and for NO<sub>x</sub>emission rate monitoring systems, RATAs may be performed in accordance with section 2.3 of appendix B to part 75 of this chapter instead of following the procedures described in Procedure 1, section 5.1.1 of appendix F to this part. If this option is selected: The frequency of each RATA shall be as specified in section 2.3.1 of appendix B to part 75 of this chapter; the applicable relative accuracy specifications shown in Figure 2 in appendix B to part 75 of this chapter shall be met; the data validation and out-of-control criteria in section 2.3.2 of appendix B to part 75 of this chapter shall be followed instead of the excessive audit inaccuracy and out-of-control criteria in Procedure 1, section 5.2 of appendix F to this part; and the grace period provisions in section 2.3.3 of appendix B to part 75 of this chapter shall apply. For the purposes of data validation under this subpart, the relative accuracy specification in section 13.2 of Performance Specification 2 in appendix B to this part shall be met on a lb/MMBtu basis for SO<sub>2</sub>(regardless of the SO<sub>2</sub>emission level during the RATA), and for NO<sub>x</sub>when the average NO<sub>x</sub>emission rate measured by the reference method during the RATA is less than 0.100 lb/MMBtu.

(f) The owner or operator of an affected facility that combusts very low sulfur oil or is demonstrating compliance under §60.45b(k) is not subject to the emission monitoring requirements under paragraph (a) of this section if the owner or operator maintains fuel records as described in §60.49b(r).

#### **§ 60.48b Emission monitoring for particulate matter and nitrogen oxides.**

(a) Except as provided in paragraph (j) of this section, the owner or operator of an affected facility subject to the opacity standard under §60.43b shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility subject to a NO<sub>x</sub>standard under §60.44b shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate CEMS for measuring NO<sub>x</sub> and O<sub>2</sub> (or CO<sub>2</sub>) emissions discharged to the atmosphere, and shall record the output of the system; or

(2) If the owner or operator has installed a NO<sub>x</sub> emission rate CEMS to meet the requirements of part 75 of this chapter and is continuing to meet the ongoing requirements of part 75 of this chapter, that CEMS may be used to meet the requirements of this section, except that the owner or operator shall also meet the requirements of §60.49b. Data reported to meet the requirements of §60.49b shall not include data substituted using the missing data procedures in subpart D of part 75 of this chapter, nor shall the data have been bias adjusted according to the procedures of part 75 of this chapter.

(c) The CEMS required under paragraph (b) of this section 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.

(d) The 1-hour average NO<sub>x</sub> emission rates measured by the continuous NO<sub>x</sub> monitor required by paragraph (b) of this section and required under §60.13(h) shall be expressed in ng/J or lb/MMBtu heat input and shall be used to calculate the average emission rates under §60.44b. The 1-hour averages shall be calculated using the data points required under §60.13(h)(2).

(e) The procedures under §60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(1) For affected facilities combusting coal, wood or municipal-type solid waste, the span value for a continuous monitoring system for measuring opacity shall be between 60 and 80 percent.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for NO<sub>x</sub> is determined using one of the following procedures:

(i) Except as provided under paragraph (e)(2)(ii) of this section, NO<sub>x</sub> span values shall be determined as follows:

<b>Fuel</b>	<b>Span values for NO<sub>x</sub> (ppm)</b>
Natural gas	500.
Oil	500.
Coal	1,000.
Mixtures	$500(x + y) + 1,000z.$

Where:

x = Fraction of total heat input derived from natural gas;

y = Fraction of total heat input derived from oil; and

z = Fraction of total heat input derived from coal.

(ii) As an alternative to meeting the requirements of paragraph (e)(2)(i) of this section, the owner or operator of an affected facility may elect to use the NO<sub>x</sub> span values determined according to section 2.1.2 in appendix A to part 75 of this chapter.

(3) All span values computed under paragraph (e)(2)(i) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm. Span values computed under paragraph (e)(2)(ii) of this section shall be rounded off according to section 2.1.2 in appendix A to part 75 of this chapter.

(f) When NO<sub>x</sub> emission data are not obtained because of CEMS breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7 of appendix A of this part, Method 7A of appendix A of this part, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

(g) The owner or operator of an affected facility that has a heat input capacity of 73 MW (250 MMBtu/hr) or less, and that has an annual capacity factor for residual oil having a nitrogen content of 0.30 weight percent or less, natural gas, distillate oil, or any mixture of these fuels, greater than 10 percent (0.10) shall:

(1) Comply with the provisions of paragraphs (b), (c), (d), (e)(2), (e)(3), and (f) of this section; or

(2) Monitor steam generating unit operating conditions and predict NO<sub>x</sub> emission rates as specified in a plan submitted pursuant to §60.49b(c).

(h) The owner or operator of a duct burner, as described in §60.41b, that is subject to the NO<sub>x</sub> standards of §60.44b(a)(4) or §60.44b(l) is not required to install or operate a continuous emissions monitoring system to measure NO<sub>x</sub> emissions.

(i) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) is not required to install or operate a CEMS for measuring NO<sub>x</sub> emissions.

(j) The owner or operator of an affected facility that meets the conditions in either paragraph (j)(1), (2), (3), (4), or (5) of this section is not required to install or operate a COMS for measuring opacity if:

(1) The affected facility uses a PM CEMS to monitor PM emissions; or

(2) The affected facility burns only liquid (excluding residual oil) or gaseous fuels with potential SO<sub>2</sub> emissions rates of 26 ng/J (0.060 lb/MMBtu) or less and does not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions. The owner or operator must maintain fuel records of the sulfur content of the fuels burned, as described under §60.49b(r); or

(3) The affected facility burns coke oven gas alone or in combination with fuels meeting the criteria in paragraph (j)(2) of this section and does not use a post-combustion technology to reduce SO<sub>2</sub> or PM emissions; or

(4) The affected facility does not use post-combustion technology (except a wet scrubber) for reducing PM, SO<sub>2</sub>, or carbon monoxide (CO) emissions, burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur, and is operated such that emissions of CO to the atmosphere from the affected facility are maintained at levels less than or equal to 0.15 lb/MMBtu on a steam generating unit operating day average basis. Owners and operators of affected facilities electing to comply with this paragraph must demonstrate compliance according to the procedures specified in paragraphs (j)(4)(i) through (iv) of this section.

(i) You must monitor CO emissions using a CEMS according to the procedures specified in paragraphs (j)(4)(i)(A) through (D) of this section.

(A) 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.

(B) 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).

(C) 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. At least two data points per hour must be used to calculate each 1-hour average.

(D) 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.

(ii) 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.

(iii) 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.

(iv) You must record the CO measurements and calculations performed according to paragraph (j)(4) 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.

(5) The affected facility burns only gaseous fuels or fuel oils that contain less than or equal to 0.30 weight percent sulfur and operates according to a written site-specific monitoring plan approved by the appropriate delegated 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.

(k) Owners or operators complying with the PM emission limit by using a PM CEMS monitor instead of monitoring opacity must calibrate, maintain, and operate a CEMS, and record the output of the system, for PM emissions discharged to the atmosphere as specified in §60.46b(j). The CEMS specified in paragraph §60.46b(j) 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.

#### **§ 60.49b Reporting and recordkeeping requirements.**

(a) The owner or operator of each affected facility shall submit notification of the date of initial startup, as provided by §60.7. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of the 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 §§60.42b(d)(1), 60.43b(a)(2), (a)(3)(iii), (c)(2)(ii), (d)(2)(iii), 60.44b(c), (d), (e), (i), (j), (k), 60.45b(d), (g), 60.46b(h), or 60.48b(i);

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

(4) Notification that an emerging technology will be used for controlling emissions of SO<sub>2</sub>. The Administrator will examine the description of the emerging technology 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 §60.42b(a) unless and until this determination is made by the Administrator.

(b) The owner or operator of each affected facility subject to the SO<sub>2</sub>, PM, and/or NO<sub>x</sub> emission limits under §§60.42b, 60.43b, and 60.44b shall submit to the Administrator the performance test data from the initial performance test and the performance evaluation of the CEMS using the applicable performance specifications in appendix B of this part. The owner or operator of each affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator the maximum heat input capacity data from the demonstration of the maximum heat input capacity of the affected facility.

(c) The owner or operator of each affected facility subject to the NO<sub>x</sub> standard of §60.44b who seeks to demonstrate compliance with those standards through the monitoring of steam generating unit operating conditions under the provisions of §60.48b(g)(2) shall submit to the Administrator for approval a plan that identifies the operating conditions to be monitored under §60.48b(g)(2) and the records to be maintained under §60.49b(j). This plan shall be submitted to the Administrator for approval within 360 days of the initial startup of the affected facility. If the plan is approved, the owner or operator shall maintain records of predicted nitrogen oxide emission rates and the monitored operating conditions, including steam generating unit load, identified in the plan. The plan shall:

(1) Identify the specific operating conditions to be monitored and the relationship between these operating conditions and NO<sub>x</sub> emission rates ( *i.e.* , ng/J or lbs/MMBtu heat input). Steam generating unit operating conditions include, but are not limited to, the degree of staged combustion ( *i.e.* , the ratio of primary air to secondary and/or tertiary air) and the level of excess air ( *i.e.* , flue gas O<sub>2</sub> level);

(2) Include the data and information that the owner or operator used to identify the relationship between NO<sub>x</sub> emission rates and these operating conditions; and

(3) Identify how these operating conditions, including steam generating unit load, will be monitored under §60.48b(g) on an hourly basis by the owner or operator during the period of operation of the affected facility; the quality assurance procedures or practices that will be employed to ensure that the data generated by monitoring these operating conditions will be representative and accurate; and the type and format of the records of these operating conditions, including steam generating unit load, that will be maintained by the owner or operator under §60.49b(j).

(d) The owner or operator of an affected facility shall record and maintain records of the amounts of each fuel combusted during each day and calculate the annual capacity factor individually for coal, distillate oil, residual oil, natural gas, wood, and municipal-type solid waste for the reporting period. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.

(e) For an affected facility that combusts residual oil and meets the criteria under §§60.46b(e)(4), 60.44b(j), or (k), the owner or operator shall maintain records of the nitrogen content of the residual oil combusted in the affected facility and calculate the average fuel nitrogen content for the reporting period. The nitrogen content shall be determined using ASTM Method D4629 (incorporated by reference, see §60.17), or fuel suppliers. If residual oil blends are being combusted, fuel nitrogen specifications may be prorated based on the ratio of residual oils of different nitrogen content in the fuel blend.

(f) For facilities subject to the opacity standard under §60.43b, the owner or operator shall maintain records of opacity.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the NO<sub>x</sub> standards under §60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The average hourly NO<sub>x</sub> emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/MMBtu heat input) measured or predicted;

(3) The 30-day average NO<sub>x</sub> emission rates (ng/J or lb/MMBtu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days;

(4) Identification of the steam generating unit operating days when the calculated 30-day average NO<sub>x</sub> emission rates are in excess of the NO<sub>x</sub> emissions standards under §60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken;

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken;

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data;

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any excess emissions that occurred during the reporting period.

(1) Any affected facility subject to the opacity standards under §60.43b(e) or to the operating parameter monitoring requirements under §60.13(i)(1).

(2) Any affected facility that is subject to the NO<sub>x</sub> standard of §60.44b, and that:

(i) Combusts natural gas, distillate oil, or residual oil with a nitrogen content of 0.3 weight percent or less; or

(ii) Has a heat input capacity of 73 MW (250 MMBtu/hr) or less and is required to monitor NO<sub>x</sub> emissions on a continuous basis under §60.48b(g)(1) or steam generating unit operating conditions under §60.48b(g)(2).

(3) For the purpose of §60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under §60.43b(f).

(4) For purposes of §60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average NO<sub>x</sub> emission rate, as determined under §60.46b(e), that exceeds the applicable emission limits in §60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for NO<sub>x</sub> under §60.48(b) shall submit reports containing the information recorded under paragraph (g) of this section.

(j) The owner or operator of any affected facility subject to the SO<sub>2</sub> standards under §60.42b shall submit reports.

(k) For each affected facility subject to the compliance and performance testing requirements of §60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates covered in the reporting period;

(2) Each 30-day average SO<sub>2</sub>emission rate (ng/J or lb/MMBtu heat input) measured during the reporting period, ending with the last 30-day period; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

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

(4) Identification of the steam generating unit operating days that coal or oil was combusted and for which SO<sub>2</sub>or diluent (O<sub>2</sub>or CO<sub>2</sub>) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken;

(5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action 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 "F" factor used for calculations, method of determination, and type of fuel combusted;

(7) Identification of times when hourly averages have been obtained based on manual sampling methods;

(8) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3;

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1 of this part; and

(11) The annual capacity factor of each fired as provided under paragraph (d) of this section.

(l) For each affected facility subject to the compliance and performance testing requirements of §60.45b(d) and the reporting requirements of paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates when the facility was in operation during the reporting period;

(2) The 24-hour average SO<sub>2</sub>emission rate measured for each steam generating unit operating day during the reporting period that coal or oil was combusted, ending in the last 24-hour period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken;

(3) Identification of the steam generating unit operating days that coal or oil was combusted for which SO<sub>2</sub>or diluent (O<sub>2</sub>or CO<sub>2</sub>) 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 description of corrective action taken;

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

(5) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted;

(6) Identification of times when hourly averages have been obtained based on manual sampling methods;

(7) Identification of the times when the pollutant concentration exceeded full span of the CEMS;

(8) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3; and

(9) Results of daily CEMS drift tests and quarterly accuracy assessments as required under Procedure 1 of appendix F 1 of this part. If the owner or operator elects to implement the alternative data assessment procedures described in §§60.47b(e)(4)(i) through (e)(4)(iii), each data assessment report shall include a summary of the results of all of the RATAs, linearity checks, CGAs, and calibration error or drift assessments required by §§60.47b(e)(4)(i) through (e)(4)(iii).

(m) For each affected facility subject to the SO<sub>2</sub> standards under §60.42(b) for which the minimum amount of data required under §60.47b(f) were not obtained during the reporting period, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

(1) The number of hourly averages available for outlet emission rates and inlet emission rates;

(2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19 of appendix A of this part, section 7;

(3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19 of appendix A of this part, section 7; and

(4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19 of appendix A of this part, section 7.

(n) If a percent removal efficiency by fuel pretreatment ( *i.e.* , %R<sub>f</sub>) is used to determine the overall percent reduction ( *i.e.* , %R<sub>o</sub>) under §60.45b, the owner or operator of the affected facility shall submit a signed statement with the report.

(1) Indicating what removal efficiency by fuel pretreatment ( *i.e.* , %R<sub>f</sub>) was credited during the reporting period;

(2) Listing the quantity, heat content, and date each pre-treated fuel shipment was received during the reporting period, the name and location of the fuel pretreatment facility; and the total quantity and total heat content of all fuels received at the affected facility during the reporting period;

(3) Documenting the transport of the fuel from the fuel pretreatment facility to the steam generating unit; and

(4) Including a signed statement from the owner or operator of the fuel pretreatment facility certifying that the percent removal efficiency achieved by fuel pretreatment was determined in accordance with the provisions of Method 19 of appendix A of this part and listing the heat content and sulfur content of each fuel before and after fuel pretreatment.

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 2 years following the date of such record.

(p) The owner or operator of an affected facility described in §60.44b(j) or (k) shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date;

(2) The number of hours of operation; and

(3) A record of the hourly steam load.

(q) The owner or operator of an affected facility described in §60.44b(j) or §60.44b(k) shall submit to the Administrator a report containing:

- (1) The annual capacity factor over the previous 12 months;
  - (2) The average fuel nitrogen content during the reporting period, if residual oil was fired; and
  - (3) If the affected facility meets the criteria described in §60.44b(j), the results of any NO<sub>x</sub>emission tests required during the reporting period, the hours of operation during the reporting period, and the hours of operation since the last NO<sub>x</sub>emission test.
- (r) The owner or operator of an affected facility who elects to use the fuel based compliance alternatives in §60.42b or §60.43b shall either:
- (1) The owner or operator of an affected facility who elects to demonstrate that the affected facility combusts only very low sulfur oil under §60.42b(j)(2) or §60.42b(k)(2) shall obtain and maintain at the affected facility fuel receipts from the fuel supplier that certify that the oil meets the definition of distillate oil as defined in §60.41b and the applicable sulfur limit. For the purposes of this section, the distillate oil need not meet the fuel nitrogen content specification in the definition of distillate oil. Reports shall be submitted to the Administrator certifying that only very low sulfur oil meeting this definition and/or pipeline quality natural gas was combusted in the affected facility during the reporting period; or
  - (2) The owner or operator of an affected facility who elects to demonstrate compliance based on fuel analysis in §60.42b or §60.43b shall develop and submit a site-specific fuel analysis plan to the Administrator for review and approval no later than 60 days before the date you intend to demonstrate compliance. Each fuel analysis plan shall include a minimum initial requirement of weekly testing and each analysis report shall contain, at a minimum, the following information:
    - (i) The potential sulfur emissions rate of the representative fuel mixture in ng/J heat input;
    - (ii) The method used to determine the potential sulfur emissions rate of each constituent of the mixture. For distillate oil and natural gas a fuel receipt or tariff sheet is acceptable;
    - (iii) The ratio of different fuels in the mixture; and
    - (iv) The owner or operator can petition the Administrator to approve monthly or quarterly sampling in place of weekly sampling.
- (s) Facility specific NO<sub>x</sub>standard for Cytec Industries Fortier Plant's C.AOG incinerator located in Westwego, Louisiana:
- (1) *Definitions* .

*Oxidation zone* is defined as the portion of the C.AOG incinerator that extends from the inlet of the oxidizing zone combustion air to the outlet gas stack.

*Reducing zone* is defined as the portion of the C.AOG incinerator that extends from the burner section to the inlet of the oxidizing zone combustion air.

*Total inlet air* is defined as the total amount of air introduced into the C.AOG incinerator for combustion of natural gas and chemical by-product waste and is equal to the sum of the air flow into the reducing zone and the air flow into the oxidation zone.
  - (2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO<sub>x</sub>emission limit for fossil fuel in §60.44b(a) applies.
  - (ii) When natural gas and chemical by-product waste are simultaneously combusted, the NO<sub>x</sub>emission limit is 289 ng/J (0.67 lb/MMBtu) and a maximum of 81 percent of the total inlet air provided for combustion shall be provided to the reducing zone of the C.AOG incinerator.

(3) *Emission monitoring* . (i) The percent of total inlet air provided to the reducing zone shall be determined at least every 15 minutes by measuring the air flow of all the air entering the reducing zone and the air flow of all the air entering the oxidation zone, and compliance with the percentage of total inlet air that is provided to the reducing zone shall be determined on a 3-hour average basis.

(ii) The NO<sub>x</sub>emission limit shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub>in §60.46b(i).

(iii) The monitoring of the NO<sub>x</sub>emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements* . (i) The owner or operator of the C.AOG incinerator shall submit a report on any excursions from the limits required by paragraph (a)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the C.AOG incinerator shall keep records of the monitoring required by paragraph (a)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the C.AOG incinerator shall perform all the applicable reporting and recordkeeping requirements of this section.

(t) Facility-specific NO<sub>x</sub>standard for Rohm and Haas Kentucky Incorporated's Boiler No. 100 located in Louisville, Kentucky:

(1) *Definitions* .

*Air ratio control damper* is defined as the part of the low NO<sub>x</sub>burner that is adjusted to control the split of total combustion air delivered to the reducing and oxidation portions of the combustion flame.

*Flue gas recirculation line* is defined as the part of Boiler No. 100 that recirculates a portion of the boiler flue gas back into the combustion air.

(2) *Standard for nitrogen oxides* . (i) When fossil fuel alone is combusted, the NO<sub>x</sub>emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO<sub>x</sub>emission limit is 473 ng/J (1.1 lb/MMBtu), and the air ratio control damper tee handle shall be at a minimum of 5 inches (12.7 centimeters) out of the boiler, and the flue gas recirculation line shall be operated at a minimum of 10 percent open as indicated by its valve opening position indicator.

(3) *Emission monitoring for nitrogen oxides* . (i) The air ratio control damper tee handle setting and the flue gas recirculation line valve opening position indicator setting shall be recorded during each 8-hour operating shift.

(ii) The NO<sub>x</sub>emission limit shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub>in §60.46b.

(iii) The monitoring of the NO<sub>x</sub>emission limit shall be performed in accordance with §60.48b.

(4) *Reporting and recordkeeping requirements* . (i) The owner or operator of Boiler No. 100 shall submit a report on any excursions from the limits required by paragraph (b)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of Boiler No. 100 shall keep records of the monitoring required by paragraph (b)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of Boiler No. 100 shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(u) *Site-specific standard for Merck & Co., Inc.'s Stonewall Plant in Elkton, Virginia*. (1) This paragraph (u) applies only to the pharmaceutical manufacturing facility, commonly referred to as the Stonewall Plant, located at Route 340 South, in Elkton, Virginia ("site") and only to the natural gas-fired boilers installed as part of the powerhouse conversion required pursuant to 40 CFR 52.2454(g). The requirements of this paragraph shall apply, and the requirements of §§60.40b through 60.49b(t) shall not apply, to the natural gas-fired boilers installed pursuant to 40 CFR 52.2454(g).

(i) The site shall equip the natural gas-fired boilers with low NO<sub>x</sub> technology.

(ii) The site shall install, calibrate, maintain, and operate a continuous monitoring and recording system for measuring NO<sub>x</sub> emissions discharged to the atmosphere and opacity using a continuous emissions monitoring system or a predictive emissions monitoring system.

(iii) Within 180 days of the completion of the powerhouse conversion, as required by 40 CFR 52.2454, the site shall perform a performance test to quantify criteria pollutant emissions.

(2) [Reserved]

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required under this subpart is each 6 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.

(x) Facility-specific NO<sub>x</sub> standard for Weyerhaeuser Company's No. 2 Power Boiler located in New Bern, North Carolina:

(1) *Standard for nitrogen oxides*. (i) When fossil fuel alone is combusted, the NO<sub>x</sub> emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical by-product waste are simultaneously combusted, the NO<sub>x</sub> emission limit is 215 ng/J (0.5 lb/MMBtu).

(2) *Emission monitoring for nitrogen oxides*. (i) The NO<sub>x</sub> emissions shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub> in §60.46b.

(ii) The monitoring of the NO<sub>x</sub> emissions shall be performed in accordance with §60.48b.

(3) *Reporting and recordkeeping requirements*. (i) The owner or operator of the No. 2 Power Boiler shall submit a report on any excursions from the limits required by paragraph (x)(2) of this section to the Administrator with the quarterly report required by §60.49b(i).

(ii) The owner or operator of the No. 2 Power Boiler shall keep records of the monitoring required by paragraph (x)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the No. 2 Power Boiler shall perform all the applicable reporting and recordkeeping requirements of §60.49b.

(y) Facility-specific NO<sub>x</sub> standard for INEOS USA's AOGI located in Lima, Ohio:

(1) *Standard for NO<sub>x</sub>*. (i) When fossil fuel alone is combusted, the NO<sub>x</sub> emission limit for fossil fuel in §60.44b(a) applies.

(ii) When fossil fuel and chemical byproduct/waste are simultaneously combusted, the NO<sub>x</sub> emission limit is 645 ng/J (1.5 lb/MMBtu).

(2) *Emission monitoring for NO<sub>x</sub>*. (i) The NO<sub>x</sub> emissions shall be determined by the compliance and performance test methods and procedures for NO<sub>x</sub> in §60.46b.

(ii) The monitoring of the NO<sub>x</sub> emissions shall be performed in accordance with §60.48b.

(3) *Reporting and recordkeeping requirements*. (i) The owner or operator of the AOGI shall submit a report on any excursions from the limits required by paragraph (y)(2) of this section to the Administrator with the quarterly report required by paragraph (i) of this section.

(ii) The owner or operator of the AOGI shall keep records of the monitoring required by paragraph (y)(3) of this section for a period of 2 years following the date of such record.

(iii) The owner or operator of the AOGI shall perform all the applicable reporting and recordkeeping requirements of this section.

**Attachment C**  
**To**  
**T023-26991-00011**

**Subpart DD—Standards of Performance for Grain Elevators**

**Source:** 43 FR 34347, Aug. 3, 1978, unless otherwise noted.

**§ 60.300 Applicability and designation of affected facility.**

(a) The provisions of this subpart apply to each affected facility at any grain terminal elevator or any grain storage elevator, except as provided under §60.304(b). The affected facilities are each truck unloading station, truck loading station, barge and ship unloading station, barge and ship loading station, railcar loading station, railcar unloading station, grain dryer, and all grain handling operations.

(b) Any facility under paragraph (a) of this section which commences construction, modification, or reconstruction after August 3, 1978, is subject to the requirements of this part.

[43 FR 34347, Aug. 3, 1978, as amended at 52 FR 42434, Nov. 5, 1988]

**§ 60.301 Definitions.**

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

(a) *Grain* means corn, wheat, sorghum, rice, rye, oats, barley, and soybeans.

(b) *Grain elevator* means any plant or installation at which grain is unloaded, handled, cleaned, dried, stored, or loaded.

(c) *Grain terminal elevator* means any grain elevator which has a permanent storage capacity of more than 88,100 m<sup>3</sup> (ca. 2.5 million U.S. bushels), except those located at animal food manufacturers, pet food manufacturers, cereal manufacturers, breweries, and livestock feedlots.

(d) *Permanent storage capacity* means grain storage capacity which is inside a building, bin, or silo.

(e) *Railcar* means railroad hopper car or boxcar.

(f) *Grain storage elevator* means any grain elevator located at any wheat flour mill, wet corn mill, dry corn mill (human consumption), rice mill, or soybean oil extraction plant which has a permanent grain storage capacity of 35,200 m<sup>3</sup> (ca. 1 million bushels).

(g) *Process emission* means the particulate matter which is collected by a capture system.

(h) *Fugitive emission* means the particulate matter which is not collected by a capture system and is released directly into the atmosphere from an affected facility at a grain elevator.

(i) *Capture system* means the equipment such as sheds, hoods, ducts, fans, dampers, etc. used to collect particulate matter generated by an affected facility at a grain elevator.

(j) *Grain unloading station* means that portion of a grain elevator where the grain is transferred from a truck, railcar, barge, or ship to a receiving hopper.

(k) *Grain loading station* means that portion of a grain elevator where the grain is transferred from the elevator to a truck, railcar, barge, or ship.

(l) *Grain handling operations* include bucket elevators or legs (excluding legs used to unload barges or ships), scale hoppers and surge bins (garners), turn heads, scalpers, cleaners, trippers, and the headhouse and other such structures.

(m) *Column dryer* means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in one or more continuous packed columns between two perforated metal sheets.

(n) *Rack dryer* means any equipment used to reduce the moisture content of grain in which the grain flows from the top to the bottom in a cascading flow around rows of baffles (racks).

(o) *Unloading leg* means a device which includes a bucket-type elevator which is used to remove grain from a barge or ship.

[43 FR 34347, Aug. 3, 1978, as amended at 65 FR 61759, Oct. 17, 2000]

### **§ 60.302 Standard for particulate matter.**

(a) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any gases which exhibit greater than 0 percent opacity from any:

(1) Column dryer with column plate perforation exceeding 2.4 mm diameter (ca. 0.094 inch).

(2) Rack dryer in which exhaust gases pass through a screen filter coarser than 50 mesh.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any affected facility except a grain dryer any process emission which:

(1) Contains particulate matter in excess of 0.023 g/dscm (ca. 0.01 gr/dscf).

(2) Exhibits greater than 0 percent opacity.

(c) On and after the 60th day of achieving the maximum production rate at which the affected facility will be operated, but no later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere any fugitive emission from:

(1) Any individual truck unloading station, railcar unloading station, or railcar loading station, which exhibits greater than 5 percent opacity.

(2) Any grain handling operation which exhibits greater than 0 percent opacity.

(3) Any truck loading station which exhibits greater than 10 percent opacity.

(4) Any barge or ship loading station which exhibits greater than 20 percent opacity.

(d) The owner or operator of any barge or ship unloading station shall operate as follows:

(1) The unloading leg shall be enclosed from the top (including the receiving hopper) to the center line of the bottom pulley and ventilation to a control device shall be maintained on both sides of the leg and the grain receiving hopper.

(2) The total rate of air ventilated shall be at least 32.1 actual cubic meters per cubic meter of grain handling capacity (ca. 40 ft<sup>3</sup>/bu).

(3) Rather than meet the requirements of paragraphs (d)(1) and (2) of this section the owner or operator may use other methods of emission control if it is demonstrated to the Administrator's satisfaction that they would reduce emissions of particulate matter to the same level or less.

### **§ 60.303 Test methods and procedures.**

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (c) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.302 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration and the volumetric flow rate of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 1.70 dscm (60 dscf). The probe and filter holder shall be operated without heaters.

(2) Method 2 shall be used to determine the ventilation volumetric flow rate.

(3) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For Method 5, Method 17 may be used.

[54 FR 6674, Feb. 14, 1989]

### **§ 60.304 Modifications.**

(a) The factor 6.5 shall be used in place of "annual asset guidelines repair allowance percentage," to determine whether a capital expenditure as defined by §60.2 has been made to an existing facility.

(b) The following physical changes or changes in the method of operation shall not by themselves be considered a modification of any existing facility:

(1) The addition of gravity loadout spouts to existing grain storage or grain transfer bins.

(2) The installation of automatic grain weighing scales.

(3) Replacement of motor and drive units driving existing grain handling equipment.

(4) The installation of permanent storage capacity with no increase in hourly grain handling capacity.

**Attachment D  
To  
T023-26991-00011**

**Subpart GGGG—National Emission Standards for Hazardous Air Pollutants: Solvent Extraction for Vegetable Oil Production**

**Source:** 66 FR 19011, Apr. 12, 2001, unless otherwise noted.

**What This Subpart Covers**

**§ 63.2830 What is the purpose of this subpart?**

This subpart establishes national emission standards for hazardous air pollutants (NESHAP) for emissions during vegetable oil production. This subpart limits hazardous air pollutant (HAP) emissions from specified vegetable oil production processes. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission standards.

**§ 63.2831 Where can I find definitions of key words used in this subpart?**

You can find definitions of key words used in this subpart in §63.2872.

**§ 63.2832 Am I subject to this subpart?**

(a) You are an affected source subject to this subpart if you meet all of the criteria listed in paragraphs (a)(1) and (2) of this section:

(1) You own or operate a vegetable oil production process that is a major source of HAP emissions or is collocated within a plant site with other sources that are individually or collectively a major source of HAP emissions.

(i) A *vegetable oil production process* is defined in §63.2872. In general, it is the collection of continuous process equipment and activities that produce crude vegetable oil and meal products by removing oil from oilseeds listed in Table 1 to §63.2840 through direct contact with an organic solvent, such as a hexane isomer blend.

(ii) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year.

(2) Your vegetable oil production process processes any combination of eight types of oilseeds listed in paragraphs (a)(2)(i) through (viii) of this section:

(i) Corn germ;

(ii) Cottonseed;

(iii) Flax;

(iv) Peanut;

(v) Rapeseed (for example, canola);

(vi) Safflower;

(vii) Soybean; and

(viii) Sunflower.

(b) You are not subject to this subpart if your vegetable oil production process meets any of the criteria listed in paragraphs (b)(1) through (4) of this section:

- (1) It uses only mechanical extraction techniques that use no organic solvent to remove oil from a listed oilseed.
- (2) It uses only batch solvent extraction and batch desolventizing equipment.
- (3) It processes only agricultural products that are not listed oilseeds as defined in §63.2872.
- (4) It functions only as a research and development facility and is not a major source.

(c) As listed in §63.1(c)(5) of the General Provisions, if your HAP emissions increase such that you become a major source, then you are subject to all of the requirements of this subpart.

**§ 63.2833 Is my source categorized as existing or new?**

(a) This subpart applies to each existing and new affected source. You must categorize your vegetable oil production process as either an existing or a new source in accordance with the criteria in Table 1 of this section, as follows:

**Table 1 to §63.2833—Categorizing Your Source as Existing or New**

<b>If your affected source...</b>	<b>And if...</b>	<b>Then your affected source...</b>
(1) was constructed or began construction before May 26, 2000	reconstruction has not occurred	is an existing source.
(2) began reconstruction, as defined in §63.2, on or after May 26, 2000	(i) reconstruction was part of a scheduled plan to comply with the existing source requirements of this subpart; and (ii) reconstruction was completed no later than 3 years after the effective date of this subpart	remains an existing source.
(3) began a significant modification, as defined in §63.2872, at any time on an existing source	the modification does not constitute reconstruction	remains an existing source.
(4) began a significant modification, as defined in §63.2872, at any time on a new source	the modification does not constitute reconstruction	remains a new source.
(5) began reconstruction on or after May 26, 2000	reconstruction was completed later than 3 years after the effective date of this subpart	is a new source
(6) began construction on or after May 26, 2000		is a new source.

(b) *Reconstruction of a source.* Any affected source is reconstructed if components are replaced so that the criteria in the definition of *reconstruction* in §63.2 are satisfied. In general, a vegetable oil production process is reconstructed if the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost for constructing a new vegetable oil production process, and it is technically and economically feasible for the reconstructed source to meet the relevant new source requirements of this subpart. The effect of reconstruction on the categorization of your existing and new affected source is described in paragraphs (b)(1) and (2) of this section:

(1) After reconstruction of an existing source, the affected source is recategorized as a new source and becomes subject to the new source requirements of this subpart.

(2) After reconstruction of a new source, the affected source remains categorized as a new source and remains subject to the new source requirements of this subpart.

(c) *Significant modification of a source.* A significant modification to an affected source is a term specific to this subpart and is defined in §63.2872.

(1) In general, a significant modification to your source consists of adding new equipment or the modification of existing equipment within the affected source that significantly affects solvent losses from the affected source. Examples include adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers. All other significant modifications must meet the criteria listed in paragraphs (c)(1)(i) and (ii) of this section:

(i) The fixed capital cost of the modification represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process.

(ii) It does not constitute reconstruction as defined in §63.2.

(2) A significant modification has no effect on the categorization of your source as existing and new. An existing source remains categorized as an existing source and subject to the existing source requirements of this subpart. A new source remains categorized as a new source and subject to the new source requirements of this subpart.

(d) Changes in the type of oilseed processed by your affected source does not affect the categorization of your source as new or existing. Recategorizing an affected source from existing to new occurs only when you add or modify process equipment within the source which meets the definition of *reconstruction*.

**§ 63.2834 When do I have to comply with the standards in this subpart?**

You must comply with this subpart in accordance with one of the schedules in Table 1 of this section, as follows:

**Table 1 of §63.2834—Compliance Dates for Existing and New Sources**

<b>If your affected source is categorized as...</b>	<b>And if...</b>	<b>Then your compliance date is...</b>
(a) an existing source		3 years after the effective date of this subpart.
(b) a new source	you startup your affected source before the effective date of this subpart	the effective date of this subpart.
(c) a new source	you startup your affected source on or after the effective date of this subpart	your startup date.

## Standards

### § 63.2840 What emission requirements must I meet?

For each facility meeting the applicability criteria in §63.2832, you must comply with either the requirements specified in paragraphs (a) through (d), or the requirements in paragraph (e) of this section.

(a)(1) The emission requirements limit the number of gallons of HAP lost per ton of listed oilseeds processed. For each operating month, you must calculate a compliance ratio which compares your actual HAP loss to your allowable HAP loss for the previous 12 operating months as shown in Equation 1 of this section. An operating month, as defined in §63.2872, is any calendar month in which a source processes a listed oilseed, excluding any entire calendar month in which the source operated under an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2). Equation 1 of this section follows:

$$\text{Compliance Ratio} = \frac{\text{Actual Hap Loss}}{\text{Allowable Hap Loss}} \quad (\text{Eq. 1})$$

(2) Equation 1 of this section can also be expressed as a function of total solvent loss as shown in Equation 2 of this section. Equation 2 of this section follows:

$$\text{Compliance Ratio} = \frac{f * \text{Actual Solvent Loss}}{0.64 * \sum_{i=1}^n ((\text{Oilseed})_i * (\text{SLF})_i)} \quad (\text{Eq. 2})$$

Where:

f = The weighted average volume fraction of HAP in solvent received during the previous 12 operating months, as determined in §63.2854, dimensionless.

0.64 = The average volume fraction of HAP in solvent in the baseline performance data, dimensionless.

Actual Solvent Loss = Gallons of actual solvent loss during previous 12 operating months, as determined in §63.2853.

Oilseed = Tons of each oilseed type "i" processed during the previous 12 operating months, as shown in §63.2855.

SLF = The corresponding solvent loss factor (gal/ton) for oilseed "i" listed in Table 1 of this section, as follows:

**Table 1 of §63.2840—Oilseed Solvent Loss Factors for Determining Allowable HAP Loss**

Type of oilseed process	A source that...	Oilseed solvent loss factor (gal/ton)	
		Existing sources	New sources
(i) Corn Germ, Wet Milling	processes corn germ that has been separated from other corn components using a “wet” process of centrifuging a slurry steeped in a dilute sulfurous acid solution	0.4	0.3
(ii) Corn Germ, Dry Milling	processes corn germ that has been separated from the other corn components using a “dry” process of mechanical chafing and air sifting	0.7	0.7
(iii) Cottonseed, Large	processes 120,000 tons or more of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period	0.5	0.4
(iv) Cottonseed, Small	processes less than 120,000 tons of a combination of cottonseed and other listed oilseeds during all normal operating periods in a 12 operating month period	0.7	0.4
(v) Flax	processes flax	0.6	0.6
(vi) Peanuts	processes peanuts	1.2	0.7
(vii) Rapeseed	processes rapeseed	0.7	0.3
(viii) Safflower	processes safflower	0.7	0.7
(ix) Soybean, Conventional	uses a conventional style desolventizer to produce crude soybean oil products and soybean animal feed products	0.2	0.2
(x) Soybean, Specialty	uses a special style desolventizer to produce soybean meal products for human and animal consumption	1.7	1.5
(xi) Soybean, Combination Plant with Low Specialty Production	processes soybeans in both specialty and conventional desolventizers and the quantity of soybeans processed in specialty desolventizers during normal operating periods is less than 3.3 percent of total soybeans processed during all normal operating periods in a 12 operating month period. The corresponding solvent loss factor is an overall value and applies to the total quantity of soybeans processed.	0.25	0.25
(xii) Sunflower	processes sunflower	0.4	0.3

(b) When your source has processed listed oilseed for 12 operating months, calculate the compliance ratio by the end of each calendar month following an operating month using Equation 2 of this section. When calculating your compliance ratio, consider the conditions and exclusions in paragraphs (b)(1) through (6) of this section:

(1) If your source processes any quantity of listed oilseeds in a calendar month and the source is not operating under an initial startup period or malfunction period subject to §63.2850, then you must categorize the month as an operating month, as defined in §63.2872.

(2) The 12-month compliance ratio may include operating months occurring prior to a source shutdown and operating months that follow after the source resumes operation.

(3) If your source shuts down and processes no listed oilseed for an entire calendar month, then you must categorize the month as a nonoperating month, as defined in §63.2872. Exclude any nonoperating months from the compliance ratio determination.

(4) If your source is subject to an initial startup period as defined in §63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the initial startup period.

(5) If your source is subject to a malfunction period as defined in §63.2872, exclude from the compliance ratio determination any solvent and oilseed information recorded for the malfunction period.

(6) For sources processing cottonseed or specialty soybean, the solvent loss factor you use to determine the compliance ratio may change each operating month depending on the tons of oilseed processed during all normal operating periods in a 12 operating month period.

(c) If the compliance ratio is less than or equal to 1.00, your source was in compliance with the HAP emission requirements for the previous operating month.

(d) To determine the compliance ratio in Equation 2 of this section, you must select the appropriate oilseed solvent loss factor from Table 1 of this section. First, determine whether your source is new or existing using Table 1 of §63.2833. Then, under the appropriate existing or new source column, select the oilseed solvent loss factor that corresponds to each type oilseed or process operation for each operating month.

(e) *Low-HAP solvent option.* For all vegetable oil production processes subject to this subpart, you must exclusively use solvent where the volume fraction of each HAP comprises 1 percent or less by volume of the solvent (low-HAP solvent) in each delivery, and you must meet the requirements in paragraphs (e)(1) through (5) of this section. Your vegetable oil production process is not subject to the requirements in §§63.2850 through 63.2870 unless specifically referenced in paragraphs (e)(1) through (5) of this section.

(1) You shall determine the HAP content of your solvent in accordance with the specifications in §63.2854(b)(1).

(2) You shall maintain documentation of the HAP content determination for each delivery of the solvent at the facility at all times.

(3) You must submit an initial notification for existing sources in accordance with §63.2860(a).

(4) You must submit an initial notification for new and reconstructed sources in accordance with §63.2860(b).

(5) You must submit an annual compliance certification in accordance with §63.2861(a). The certification should only include the information required under §63.2861(a)(1) and (2), and a certification indicating whether the source complied with all of the requirements in paragraph (e) of this section.

(f) You may change compliance options for your source if you submit a notice to the Administrator at least 60 days prior to changing compliance options. If your source changes from the low-HAP solvent option to the compliance ratio determination option, you must determine the compliance ratio for the most recent 12 operating months beginning with the first month after changing compliance options.

[66 FR 19011, Apr. 12, 2001, as amended at 69 FR 53341, Sept. 1, 2004]

## Compliance Requirements

### § 63.2850 How do I comply with the hazardous air pollutant emission standards?

(a) *General requirements.* The requirements in paragraphs (a)(1)(i) through (iv) of this section apply to all affected sources:

(1) Submit the necessary notifications in accordance with §63.2860, which include:

(i) Initial notifications for existing sources.

(ii) Initial notifications for new and reconstructed sources.

(iii) Initial notifications for significant modifications to existing or new sources.

(iv) Notification of compliance status.

(2) Develop and implement a plan for demonstrating compliance in accordance with §63.2851.

(3) Develop a written startup, shutdown and malfunction (SSM) plan in accordance with the provisions in §63.2852.

(4) Maintain all the necessary records you have used to demonstrate compliance with this subpart in accordance with §63.2862.

(5) Submit the reports in paragraphs (a)(5)(i) through (iii) of this section:

(i) Annual compliance certifications in accordance with §63.2861(a).

(ii) Periodic SSM reports in accordance with §63.2861(c).

(iii) Immediate SSM reports in accordance with §63.2861(d).

(6) Submit all notifications and reports and maintain all records required by the General Provisions for performance testing if you add a control device that destroys solvent.

(b) *Existing sources under normal operation.* You must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for existing sources under normal operation in Table 2 of this section.

(c) *New sources.* Your new source, including a source that is categorized as new due to reconstruction, must meet the requirements associated with one of two compliance options. Within 15 days of the startup date, you must choose to comply with one of the options listed in paragraph (c)(1) or (2) of this section:

(1) *Normal operation.* Upon startup of your new source, you must meet all of the requirements listed in §63.2850(a) and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for new sources under normal operation in Table 2 of this section.

(2) *Initial startup period.* For up to 6 calendar months after the startup date of your new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for new sources operating under an initial startup period in Table 2 of this section. After a maximum of 6 calendar months, your new source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(d) *Existing or new sources that have been significantly modified.* Your existing or new source that has been significantly modified must meet the requirements associated with one of two compliance options. Within 15 days of the modified source startup date, you must choose to comply with one of the options listed in paragraph (d)(1) or (2) of this section:

(1) *Normal operation.* Upon startup of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources under normal operation, and the schedules for demonstrating compliance for an existing or new source that has been significantly modified in Table 2 of this section.

(2) *Initial startup period.* For up to 3 calendar months after the startup date of your significantly modified existing or new source, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating under an initial startup period, and the schedules for demonstrating compliance for a significantly modified existing or new source operating under an initial startup period in Table 2 of this section. After a maximum of 3 calendar months, your new or existing source must meet all of the requirements listed in Table 1 of this section for sources under normal operation.

(e) *Existing or new sources experiencing a malfunction.* A *malfunction* is defined in §63.2. In general, it means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment or process equipment to function in a usual manner. If your existing or new source experiences an unscheduled shutdown as a result of a malfunction, continues to operate during a malfunction (including the period reasonably necessary to correct the malfunction), or starts up after a shutdown resulting from a malfunction, then you must meet the requirements associated with one of two compliance options. Routine or scheduled process startups and shutdowns resulting from, but not limited to, market demands, maintenance activities, and switching types of oilseed processed, are not startups or shutdowns resulting from a malfunction and, therefore, do not qualify for this provision. Within 15 days of the beginning date of the malfunction, you must choose to comply with one of the options listed in paragraphs (e)(1) through (2) of this section:

(1) *Normal operation.* Your source must meet all of the requirements listed in paragraph (a) of this section and one of the options listed in paragraphs (e)(1)(i) through (iii) of this section:

(i) Existing source normal operation requirements in paragraph (b) of this section.

(ii) New source normal operation requirements in paragraph (c)(1) of this section.

(iii) Normal operation requirements for sources that have been significantly modified in paragraph (d)(1) of this section.

(2) *Malfunction period.* Throughout the malfunction period, you must meet all of the requirements listed in paragraph (a) of this section and Table 1 of this section for sources operating during a malfunction period. At the end of the malfunction period, your source must then meet all of the requirements listed in Table 1 of this section for sources under normal operation. Table 1 of this section follows:

**Table 1 of §63.2850—Requirements for Compliance with HAP Emission Standards**

<b>Are you required to . . .</b>	<b>For periods of normal operation?</b>	<b>For initial startup periods subject to §63.2850(c)(2) or (d)(2)?</b>	<b>For malfunction periods subject to §63.2850(e)(2)?</b>
(a) Operate and maintain your source in accordance with general duty provisions of §63.6(e)?	Yes. Additionally, the HAP emission limits will apply.	Yes, you are required to minimize emissions to the extent practicable throughout the initial startup period. Such measures should be described in the SSM plan.	Yes, you are required to minimize emissions to the extent practicable throughout the initial startup period. Such measures should be described in the SSM plan.
(b) Determine and record the extraction solvent loss in gallons from your source?	Yes, as described in §63.2853	Yes, as described in §63.2862(e)	Yes, as described in §63.2862(e).
(c) Record the volume fraction of HAP present at greater than 1 percent by volume and gallons of extraction solvent in shipment received?	Yes	Yes	Yes.
(d) Determine and record the tons of each oilseed type processed by your source?	Yes, as described in §63.2855	No	No.
(e) Determine the weighted average volume fraction of HAP in extraction solvent received as described in §63.2854 by the end of the following calendar month?	Yes	No. Except for solvent received by a new or reconstructed source commencing operation under an initial startup period, the HAP volume fraction in any solvent received during an initial startup period is included in the weighted average HAP determination for the next operating month	No, the HAP volume fraction in any solvent received during a malfunction period is included in the weighted average HAP determination for the next operating month.
(f) Determine and record the actual solvent loss, weighted average volume fraction HAP, oilseed processed and compliance ratio for each 12 operating month period as described in §63.2840 by the end of the following calendar month?	Yes,	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(g) Submit a Notification of Compliance Status or Annual Compliance Certification as appropriate?	Yes, as described in §§63.2860(d) and 63.2861(a)	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual	No. However, you may be required to submit an annual compliance certification for previous operating months, if the deadline for the annual

<b>Are you required to . . .</b>	<b>For periods of normal operation?</b>	<b>For initial startup periods subject to §63.2850(c)(2) or (d)(2)?</b>	<b>For malfunction periods subject to §63.2850(e)(2)?</b>
		compliance certification happens to occur during the initial startup period	compliance certification happens to occur during the malfunction period.
(h) Submit a Deviation Notification Report by the end of the calendar month following the month in which you determined that the compliance ratio exceeds 1.00 as described in §63.2861(b)?	Yes	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for an initial startup period	No, these requirements are not applicable because your source is not required to determine the compliance ratio with data recorded for a malfunction period.
(i) Submit a Periodic SSM Report as described in §63.2861(c)?	No, a SSM activity is not categorized as normal operation	Yes	Yes.
(j) Submit an Immediate SSM Report as described in §63.2861(d)?	No, a SSM activity is not categorized as normal operation	Yes, only if your source does not follow the SSM plan	Yes, only if your source does not follow the SSM plan.

**Table 2 of §63.2850—Schedules for Demonstrating Compliance Under Various Source Operating Modes**

<b>If your source is . . .</b>	<b>and is operating under. . .</b>	<b>then your recordkeeping schedule. . .</b>	<b>You must determine your first compliance ratio by the end of the calendar month following. . .</b>	<b>Base your first compliance ratio on information recorded. . .</b>
(a) Existing	Normal operation	Begins on the compliance date	The first 12 operating months after the compliance date	During the first 12 operating months after the compliance date.
(b) New	(1) Normal operation	Begins on the startup date of your new source	The first 12 operating months after the startup date of the new source	During the first 12 operating months after the startup date of the new source.
	(2) An initial startup period	Begins on the startup date of your new source	The first 12 operating months after termination of the initial startup period, which can last for up to 6 months	During the first 12 operating months after the initial startup period, which can last for up to 6 months.
(c) Existing or new that has been significantly modified	(1) Normal operation	Resumes on the startup date of the modified source	The first operating month after the startup date of the modified source	During the previous 11 operating months prior to the significant modification and the first operating month following the initial startup date of the source.
	(2) An initial startup period	Resumes on the startup date of the modified source	The first operating month after termination of the initial startup period, which can last up to 3 months	During the 11 operating months before the significant modification and the first operating month after the initial startup period.

[66 FR 19011, Apr. 12, 2001, as amended at 71 FR 20463, Apr. 20, 2006]

**§ 63.2851 What is a plan for demonstrating compliance?**

(a) You must develop and implement a written plan for demonstrating compliance that provides the detailed procedures you will follow to monitor and record data necessary for demonstrating compliance with this subpart. Procedures followed for quantifying solvent loss from the source and amount of oilseed processed vary from source to source because of site-specific factors such as equipment design characteristics and operating conditions. Typical procedures include one or more accurate measurement methods such as weigh scales, volumetric displacement, and material mass balances. Because the industry does not have a uniform set of procedures, you must develop and implement your own site-specific plan for demonstrating compliance before the compliance date for your source. You must also incorporate the plan for demonstrating compliance by reference in the source's title V permit and keep the plan on-site and readily available as long as the source is operational. If you make any changes to the plan for demonstrating compliance, then you must keep all previous versions of the plan and make them readily available for inspection for at least 5 years after each revision. The plan for demonstrating compliance must include the items in paragraphs (a)(1) through (7) of this section:

- (1) The name and address of the owner or operator.

- (2) The physical address of the vegetable oil production process.
  - (3) A detailed description of all methods of measurement your source will use to determine your solvent losses, HAP content of solvent, and the tons of each type of oilseed processed.
  - (4) When each measurement will be made.
  - (5) Examples of each calculation you will use to determine your compliance status. Include examples of how you will convert data measured with one parameter to other terms for use in compliance determination.
  - (6) Example logs of how data will be recorded.
  - (7) A plan to ensure that the data continue to meet compliance demonstration needs.
- (b) The responsible agency of these NESHAP may require you to revise your plan for demonstrating compliance. The responsible agency may require reasonable revisions if the procedures lack detail, are inconsistent or do not accurately determine solvent loss, HAP content of the solvent, or the tons of oilseed processed.

#### **§ 63.2852 What is a startup, shutdown, and malfunction plan?**

You must develop a written SSM plan in accordance with §63.6(e)(3). You must complete the SSM plan before the compliance date for your source. You must also keep the SSM plan on-site and readily available as long as the source is operational. The SSM plan provides detailed procedures for operating and maintaining your source to minimize emissions during a qualifying SSM event for which the source chooses the §63.2850(e)(2) malfunction period, or the §63.2850(c)(2) or (d)(2) initial startup period. The SSM plan must specify a program of corrective action for malfunctioning process and air pollution control equipment and reflect the best practices now in use by the industry to minimize emissions. Some or all of the procedures may come from plans you developed for other purposes such as a Standard Operating Procedure manual or an Occupational Safety and Health Administration Process Safety Management plan. To qualify as a SSM plan, other such plans must meet all the applicable requirements of these NESHAP.

[66 FR 19011, Apr. 12, 2001, as amended at 67 FR 16321, Apr. 5, 2002; 71 FR 20463, Apr. 20, 2006]

#### **§ 63.2853 How do I determine the actual solvent loss?**

By the end of each calendar month following an operating month, you must determine the total solvent loss in gallons for the previous operating month. The total solvent loss for an operating month includes all solvent losses that occur during normal operating periods within the operating month. If you have determined solvent losses for 12 or more operating months, then you must also determine the 12 operating months rolling sum of actual solvent loss in gallons by summing the monthly actual solvent loss for the previous 12 operating months. The 12 operating months rolling sum of solvent loss is the "actual solvent loss," which is used to calculate your compliance ratio as described in §63.2840.

(a) To determine the actual solvent loss from your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (7) of this section:

(1) *The dates that define each operating status period during a calendar month.* The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If the source maintains the same operating status during an entire calendar month, these dates are the beginning and ending dates of the calendar month. If, prior to the effective date of this rule, your source determines the solvent loss on an *accounting month*, as defined in §63.2872, rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP.

(2) *Source operating status.* You must categorize the operating status of your source for each recorded time interval in accordance with criteria in Table 1 of this section, as follows:

**Table 1 of §63.2853—Categorizing Your Source Operating Status**

If during a recorded time interval . . .	then your source operating status is . . .
(i) Your source processes any amount of listed oilseed and source is not operating under an initial startup operating period or a malfunction period subject to §63.2850(c)(2), (d)(2), or (e)(2)	A normal operating period.
(ii) Your source processes no agricultural product and your source is not operating under an initial startup period or malfunction period subject to §63.2850(c)(2), (d)(2), or (e)(2)	A nonoperating period.
(iii) You choose to operate your source under an initial startup period subject to §63.2850(c)(2) or (d)(2)	An initial startup period.
(iv) You choose to operate your source under a malfunction period subject to §63.2850(e)(2)	A malfunction period.
(v) Your source processes agricultural products not defined as listed oilseed	An exempt period.

(3) *Measuring the beginning and ending solvent inventory.* You are required to measure and record the solvent inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in §63.2851, to determine the extraction solvent inventory, and maintain readily available records of the actual solvent loss inventory, as described in §63.2862(c)(1). In general, you must measure and record the solvent inventory only when the source is actively processing any type of agricultural product. When the source is not active, some or all of the solvent working capacity is transferred to solvent storage tanks which can artificially inflate the solvent inventory.

(4) *Gallons of extraction solvent received.* Record the total gallons of extraction solvent received in each shipment. For most processes, the gallons of solvent received represents purchases of delivered solvent added to the solvent storage inventory. However, if your process refines additional vegetable oil from off-site sources, recovers solvent from the off-site oil, and adds it to the on-site solvent inventory, then you must determine the quantity of recovered solvent and include it in the gallons of extraction solvent received.

(5) *Solvent inventory adjustments.* In some situations, solvent losses determined directly from the measured solvent inventory and quantity of solvent received is not an accurate estimate of the “actual solvent loss” for use in determining compliance ratios. In such cases, you may adjust the total solvent loss for each normal operating period as long as you provide a reasonable justification for the adjustment. Situations that may require adjustments of the total solvent loss include, but are not limited to, situations in paragraphs (a)(5)(i) and (ii) of this section:

(i) *Solvent destroyed in a control device.* You may use a control device to reduce solvent emissions to meet the emission standard. The use of a control device does not alter the emission limit for the source. If you use a control device that reduces solvent emissions through destruction of the solvent instead of recovery, then determine the gallons of solvent that enter the control device and are destroyed there during each normal operating period. All solvent destroyed in a control device during a normal operating period can be subtracted from the total solvent loss. Examples of destructive emission control devices include catalytic incinerators, boilers, or flares. Identify and describe, in your plan for demonstrating compliance, each type of reasonable and sound measurement method that you use to quantify the gallons of solvent entering and exiting the control device and to determine the destruction efficiency of the control device. You may use design evaluations to document the gallons of solvent destroyed or removed by the control device instead of performance testing under §63.7. The design evaluations must be based on the procedures and options

described in §63.985(b)(1)(i)(A) through (C) or §63.11, as appropriate. All data, assumptions, and procedures used in such evaluations must be documented and available for inspection. If you use performance testing to determine solvent flow rate to the control device or destruction efficiency of the device, follow the procedures as outlined in §63.997(e)(1) and (2). Instead of periodic performance testing to demonstrate continued good operation of the control device, you may develop a monitoring plan, following the procedures outlined in §63.988(c) and using operational parametric measurement devices such as fan parameters, percent measurements of lower explosive limits, and combustion temperature.

(ii) Changes in solvent working capacity. In records you keep on-site, document any process modifications resulting in changes to the solvent working capacity in your vegetable oil production process. *Solvent working capacity* is defined in §63.2872. In general, solvent working capacity is the volume of solvent normally retained in solvent recovery equipment such as the extractor, desolventizer-toaster, solvent storage, working tanks, mineral oil absorber, condensers, and oil/solvent distillation system. If the change occurs during a normal operating period, you must determine the difference in working solvent volume and make a one-time documented adjustment to the solvent inventory.

(b) Use Equation 1 of this section to determine the actual solvent loss occurring from your affected source for all normal operating periods recorded within a calendar month. Equation 1 of this section follows:

Monthly Actual

$$\text{Solvent (gal)} = \sum_{i=1}^n (\text{SOLV}_B - \text{SOLV}_E + \text{SOLV}_R \pm \text{SOLV}_A)_i \quad (\text{Eq. 1})$$

Where:

SOLV<sub>B</sub>= Gallons of solvent in the inventory at the beginning of normal operating period “i” as determined in paragraph (a)(3) of this section.

SOLV<sub>E</sub>= Gallons of solvent in the inventory at the end of normal operating period “i” as determined in paragraph (a)(3) of this section.

SOLV<sub>R</sub>= Gallons of solvent received between the beginning and ending inventory dates of normal operating period “i” as determined in paragraph (a)(4) of this section.

SOLV<sub>A</sub>= Gallons of solvent added or removed from the extraction solvent inventory during normal operating period “i” as determined in paragraph (a)(5) of this section.

n = Number of normal operating periods in a calendar month.

(c) The actual solvent loss is the total solvent losses during normal operating periods for the previous 12 operating months. You determine your actual solvent loss by summing the monthly actual solvent losses for the previous 12 operating months. You must record the actual solvent loss by the end of each calendar month following an operating month. Use the actual solvent loss in Equation 2 of §63.2840 to determine the compliance ratio. Actual solvent loss does not include losses that occur during operating status periods listed in paragraphs (c)(1) through (4) of this section. If any one of these four operating status periods span an entire month, then the month is treated as nonoperating and there is no compliance ratio determination.

(1) Nonoperating periods as described in paragraph (a)(2)(ii) of this section.

(2) Initial startup periods as described in §63.2850(c)(2) or (d)(2).

(3) Malfunction periods as described in §63.2850(e)(2).

(4) Exempt operation periods as described in paragraph (a)(2)(v) of this section.

**§ 63.2854 How do I determine the weighted average volume fraction of HAP in the actual solvent loss?**

(a) This section describes the information and procedures you must use to determine the weighted average volume fraction of HAP in extraction solvent received for use in your vegetable oil production process. By the end of each calendar month following an operating month, determine the weighted average volume fraction of HAP in extraction solvent received since the end of the previous operating month. If you have determined the monthly weighted average volume fraction of HAP in solvent received for 12 or more operating months, then also determine an overall weighted average volume fraction of HAP in solvent received for the previous 12 operating months. Use the volume fraction of HAP determined as a 12 operating months weighted average in Equation 2 of §63.2840 to determine the compliance ratio.

(b) To determine the volume fraction of HAP in the extraction solvent determined as a 12 operating months weighted average, you must comply with paragraphs (b)(1) through (3) of this section:

(1) Record the volume fraction of each HAP comprising more than 1 percent by volume of the solvent in each delivery of solvent, including solvent recovered from off-site oil. To determine the HAP content of the material in each delivery of solvent, the reference method is EPA Method 311 of appendix A of this part. You may use EPA Method 311, an approved alternative method, or any other reasonable means for determining the HAP content. Other reasonable means of determining HAP content include, but are not limited to, a material safety data sheet or a manufacturer's certificate of analysis. A certificate of analysis is a legal and binding document provided by a solvent manufacturer. The purpose of a certificate of analysis is to list the test methods and analytical results that determine chemical properties of the solvent and the volume percentage of all HAP components present in the solvent at quantities greater than 1 percent by volume. You are not required to test the materials that you use, but the Administrator may require a test using EPA Method 311 (or an approved alternative method) to confirm the reported HAP content. However, if the results of an analysis by EPA Method 311 are different from the HAP content determined by another means, the EPA Method 311 results will govern compliance determinations.

(2) Determine the weighted average volume fraction of HAP in the extraction solvent each operating month. The weighted average volume fraction of HAP for an operating month includes all solvent received since the end of the last operating month, regardless of the operating status at the time of the delivery. Determine the monthly weighted average volume fraction of HAP by summing the products of the HAP volume fraction of each delivery and the volume of each delivery and dividing the sum by the total volume of all deliveries as expressed in Equation 1 of this section. Record the result by the end of each calendar month following an operating month. Equation 1 of this section follows:

$$\begin{array}{l} \text{Monthly Weighted} \\ \text{Average HAP Content} \\ \text{of Extraction Solvent} \\ \text{(volume fraction)} \end{array} = \frac{\sum_{i=1}^n (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{Eq. 1})$$

Where:

Received<sub>i</sub>= Gallons of extraction solvent received in delivery "i."

Content<sub>i</sub>= The volume fraction of HAP in extraction solvent delivery "i."

Total Received = Total gallons of extraction solvent received since the end of the previous operating month.

n = Number of extraction solvent deliveries since the end of the previous operating month.

(3) Determine the volume fraction of HAP in your extraction solvent as a 12 operating months weighted average. When your source has processed oilseed for 12 operating months, sum the products of the monthly weighted average HAP volume fraction and corresponding volume of solvent received, and divide the sum by the total volume of solvent received for the 12 operating months, as expressed by Equation 2 of this section. Record the result by the end of each calendar month following an operating month and use it in Equation 2 of §63.2840 to determine the compliance ratio. Equation 2 of this section follows:

$$\begin{array}{l} \text{12-Month Weighted} \\ \text{Average of HAP Content} \\ \text{in Solvent Received} \\ \text{(volume fraction)} \end{array} = \frac{\sum_{i=1}^{12} (\text{Received}_i * \text{Content}_i)}{\text{Total Received}} \quad (\text{Eq. 2})$$

Where:

Received<sub>i</sub>= Gallons of extraction solvent received in operating month “i” as determined in accordance with §63.2853(a)(4).

Content<sub>i</sub>= Average volume fraction of HAP in extraction solvent received in operating month “i” as determined in accordance with paragraph (b)(1) of this section.

Total Received = Total gallons of extraction solvent received during the previous 12 operating months.

### § 63.2855 How do I determine the quantity of oilseed processed?

All oilseed measurements must be determined on an *as received* basis, as defined in §63.2872. The *as received* basis refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing. By the end of each calendar month following an operating month, you must determine the tons as received of each listed oilseed processed for the operating month. The total oilseed processed for an operating month includes the total of each oilseed processed during all normal operating periods that occur within the operating month. If you have determined the tons of oilseed processed for 12 or more operating months, then you must also determine the 12 operating months rolling sum of each type oilseed processed by summing the tons of each type of oilseed processed for the previous 12 operating months. The 12 operating months rolling sum of each type of oilseed processed is used to calculate the compliance ratio as described in §63.2840.

(a) To determine the tons as received of each type of oilseed processed at your source, follow the procedures in your plan for demonstrating compliance to determine the items in paragraphs (a)(1) through (5) of this section:

(1) *The dates that define each operating status period.* The dates that define each operating status period include the beginning date of each calendar month and the date of any change in the source operating status. If, prior to the effective date of this rule, your source determines the oilseed inventory on an accounting month rather than a calendar month basis, and you have 12 complete accounting months of approximately equal duration in a calendar year, you may substitute the accounting month time interval for the calendar month time interval. If you choose to use an accounting month rather than a calendar month, you must document this measurement frequency selection in your plan for demonstrating compliance, and you must remain on this schedule unless you request and receive written approval from the agency responsible for these NESHAP. The dates on each oilseed inventory log must be consistent with the dates recorded for the solvent inventory.

(2) *Source operating status.* You must categorize the source operation for each recorded time interval. The source operating status for each time interval recorded on the oilseed inventory for each type of oilseed must be consistent with the operating status recorded on the solvent inventory logs as described in §63.2853(a)(2).

(3) *Measuring the beginning and ending inventory for each oilseed.* You are required to measure and record the oilseed inventory on the beginning and ending dates of each normal operating period that occurs during an operating month. An operating month is any calendar month with at least one normal operating period. You must consistently follow the procedures described in your plan for demonstrating compliance, as specified in §63.2851, to determine the oilseed inventory on an as received basis and maintain readily available records of the oilseed inventory as described by §63.2862(c)(3).

(4) *Tons of each oilseed received.* Record the type of oilseed and tons of each shipment of oilseed received and added to your on-site storage.

(5) *Oilseed inventory adjustments.* In some situations, determining the quantity of oilseed processed directly from the measured oilseed inventory and quantity of oilseed received is not an accurate estimate of the tons of oilseed processed for use in determining compliance ratios. For example, spoiled and molded oilseed removed from storage but not processed by your source will result in an overestimate of the quantity of oilseed processed. In such cases, you must adjust the oilseed inventory and provide a justification for the adjustment. Situations that may require oilseed inventory adjustments include, but are not limited to, the situations listed in paragraphs (a)(5)(i) through (v) of this section:

(i) Oilseed that mold or otherwise become unsuitable for processing.

(ii) Oilseed you sell before it enters the processing operation.

(iii) Oilseed destroyed by an event such as a process malfunction, fire, or natural disaster.

(iv) Oilseed processed through operations prior to solvent extraction such as screening, dehulling, cracking, drying, and conditioning; but that are not routed to the solvent extractor for further processing.

(v) Periodic physical measurements of inventory. For example, some sources periodically empty oilseed storage silos to physically measure the current oilseed inventory. This periodic measurement procedure typically results in a small inventory correction. The correction factor, usually less than 1 percent, may be used to make an adjustment to the source's oilseed inventory that was estimated previously with indirect measurement techniques. To make this adjustment, your plan for demonstrating compliance must provide for such an adjustment.

(b) Use Equation 1 of this section to determine the quantity of each oilseed type processed at your affected source during normal operating periods recorded within a calendar month. Equation 1 of this section follows:

$$\begin{array}{l} \text{Monthly Quantity} \\ \text{of Each Oilseed} \\ \text{Processed (tons)} \end{array} = \sum_{n=1}^n (SEED_B - SEED_E + SEED_R \pm SEED_A) \quad (Eq. 1)$$

Where:

$SEED_B$  = Tons of oilseed in the inventory at the beginning of normal operating period "i" as determined in accordance with paragraph (a)(3) of this section.

$SEED_E$  = Tons of oilseed in the inventory at the end of normal operating period "i" as determined in accordance with paragraph (a)(3) of this section.

$SEED_R$  = Tons of oilseed received during normal operating period "i" as determined in accordance with paragraph (a)(4) of this section.

$SEED_A$  = Tons of oilseed added or removed from the oilseed inventory during normal operating period "i" as determined in accordance with paragraph (a)(5) of this section.

n = Number of normal operating periods in the calendar month during which this type oilseed was processed.

(c) The quantity of each oilseed processed is the total tons of each type of listed oilseed processed during normal operating periods in the previous 12 operating months. You determine the tons of each oilseed processed by summing the monthly quantity of each oilseed processed for the previous 12 operating months. You must record the 12 operating months quantity of each type of oilseed processed by the end of each calendar month following an operating month. Use the 12 operating months quantity of each type of oilseed processed to determine the compliance ratio as described in §63.2840. The quantity of oilseed processed does not include oilseed processed during the operating status periods in paragraphs (c)(1) through (4) of this section:

(1) Nonoperating periods as described in §63.2853 (a)(2)(ii).

(2) Initial startup periods as described in §63.2850(c)(2) or (d)(2).

(3) Malfunction periods as described in §63.2850(e)(2).

(4) Exempt operation periods as described in §63.2853 (a)(2)(v).

(5) If any one of these four operating status periods span an entire calendar month, then the calendar month is treated as a nonoperating month and there is no compliance ratio determination.

## **Notifications, Reports, and Records**

### **§ 63.2860 What notifications must I submit and when?**

You must submit the one-time notifications listed in paragraphs (a) through (d) of this section to the responsible agency:

(a) *Initial notification for existing sources.* For an existing source, submit an initial notification to the agency responsible for these NESHAP no later than 120 days after the effective date of this subpart. In the notification, include the items in paragraphs (a)(1) through (5) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Identification of the relevant standard, such as the vegetable oil production NESHAP, and compliance date.

(4) A brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(5) A statement designating the source as a major source of HAP or a demonstration that the source meets the definition of an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(b) *Initial notifications for new and reconstructed sources.* New or reconstructed sources must submit a series of notifications before, during, and after source construction per the schedule listed in §63.9. The information requirements for the notifications are the same as those listed in the General Provisions with the exceptions listed in paragraphs (b)(1) and (2) of this section:

(1) The application for approval of construction does not require the specific HAP emission data required in §63.5(d)(1)(ii)(H) and (iii), (d)(2) and (d)(3)(ii). The application for approval of construction would include,

instead, a brief description of the source including the types of listed oilseeds processed, nominal operating capacity, and type of desolventizer(s) used.

(2) The notification of actual startup date must also include whether you have elected to operate under an initial startup period subject to §63.2850(c)(2) and provide an estimate and justification for the anticipated duration of the initial startup period.

(c) *Significant modification notifications.* Any existing or new source that plans to undergo a significant modification as defined in §63.2872 must submit two reports as described in paragraphs (c)(1) and (2) of this section:

(1) Initial notification. You must submit an initial notification to the agency responsible for these NESHAP 30 days prior to initial startup of the significantly modified source. The initial notification must demonstrate that the proposed changes qualify as a significant modification. The initial notification must include the items in paragraphs (c)(1)(i) and (ii) of this section:

(i) The expected startup date of the modified source.

(ii) A description of the significant modification including a list of the equipment that will be replaced or modified. If the significant modification involves changes other than adding or replacing extractors, desolventizer-toasters (conventional and specialty), and meal dryer-coolers, then you must also include the fixed capital cost of the new components, expressed as a percentage of the fixed capital cost to build a comparable new vegetable oil production process; supporting documentation for the cost estimate; and documentation that the proposed changes will significantly affect solvent losses.

(2) Notification of actual startup. You must submit a notification of actual startup date within 15 days after initial startup of the modified source. The notification must include the items in paragraphs (c)(2)(i) through (iv) of this section:

(i) The initial startup date of the modified source.

(ii) An indication whether you have elected to operate under an initial startup period subject to §63.2850(d)(2).

(iii) The anticipated duration of any initial startup period.

(iv) A justification for the anticipated duration of any initial startup period.

(d) *Notification of compliance status.* As an existing, new, or reconstructed source, you must submit a notification of compliance status report to the responsible agency no later than 60 days after determining your initial 12 operating months compliance ratio. If you are an existing source, you generally must submit this notification no later than 50 calendar months after the effective date of these NESHAP (36 calendar months for compliance, 12 operating months to record data, and 2 calendar months to complete the report). If you are a new or reconstructed source, the notification of compliance status is generally due no later than 20 calendar months after initial startup (6 calendar months for the initial startup period, 12 operating months to record data, and 2 calendar months to complete the report). The notification of compliance status must contain the items in paragraphs (d)(1) through (6) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the previous 12 operating months.

(4) Each HAP identified under §63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 operating months period used for the initial compliance determination.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification indicating whether the source complied with all of the requirements of this subpart throughout the 12 operating months used for the initial source compliance determination. This certification must include a certification of the items in paragraphs (d)(6)(i) through (iii) of this section:

(i) The plan for demonstrating compliance (as described in §63.2851) and SSM plan (as described in §63.2852) are complete and available on-site for inspection.

(ii) You are following the procedures described in the plan for demonstrating compliance.

(iii) The compliance ratio is less than or equal to 1.00.

### **§ 63.2861 What reports must I submit and when?**

After the initial notifications, you must submit the reports in paragraphs (a) through (d) of this section to the agency responsible for these NESHAP at the appropriate time intervals:

(a) *Annual compliance certifications.* The first annual compliance certification is due 12 calendar months after you submit the notification of compliance status. Each subsequent annual compliance certification is due 12 calendar months after the previous annual compliance certification. The annual compliance certification provides the compliance status for each operating month during the 12 calendar months period ending 60 days prior to the date on which the report is due. Include the information in paragraphs (a)(1) through (6) of this section in the annual certification:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 calendar months period covered by the report.

(4) Each HAP identified under §63.2854(a) as being present in concentrations greater than 1 percent by volume in each delivery of solvent received during the 12 calendar months period covered by the report.

(5) A statement designating the source as a major source of HAP or a demonstration that the source qualifies as an area source. An area source is a source that is not a major source and is not collocated within a plant site with other sources that are individually or collectively a major source.

(6) A compliance certification to indicate whether the source was in compliance for each compliance determination made during the 12 calendar months period covered by the report. For each such compliance determination, you must include a certification of the items in paragraphs (a)(6)(i) through (ii) of this section:

(i) You are following the procedures described in the plan for demonstrating compliance.

(ii) The compliance ratio is less than or equal to 1.00.

(b) *Deviation notification report.* Submit a deviation report for each compliance determination you make in which the compliance ratio exceeds 1.00 as determined under §63.2840(c). Submit the deviation report by the end of the month following the calendar month in which you determined the deviation. The deviation notification report must include the items in paragraphs (b)(1) through (4) of this section:

(1) The name and address of the owner or operator.

(2) The physical address of the vegetable oil production process.

(3) Each listed oilseed type processed during the 12 operating months period for which you determined the deviation.

(4) The compliance ratio comprising the deviation. You may reduce the frequency of submittal of the deviation notification report if the agency responsible for these NESHAP does not object as provided in §63.10(e)(3)(iii).

(c) *Periodic startup, shutdown, and malfunction report.* If you choose to operate your source under an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2), you must submit a periodic SSM report by the end of the calendar month following each month in which the initial startup period or malfunction period occurred. The periodic SSM report must include the items in paragraphs (c)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying that the report accurately states that all actions taken during the initial startup or malfunction period were consistent with the SSM plan.

(2) A description of events occurring during the time period, the date and duration of the events, and reason the time interval qualifies as an initial startup period or malfunction period.

(3) An estimate of the solvent loss during the initial startup or malfunction period with supporting documentation.

(d) *Immediate SSM reports.* If you handle a SSM during an initial startup period subject to §63.2850(c)(2) or (d)(2) or a malfunction period subject to §63.2850(e)(2) differently from procedures in the SSM plan and the relevant emission requirements in §63.2840 are exceeded, then you must submit an immediate SSM report. Immediate SSM reports consist of a telephone call or facsimile transmission to the responsible agency within 2 working days after starting actions inconsistent with the SSM plan, followed by a letter within 7 working days after the end of the event. The letter must include the items in paragraphs (d)(1) through (3) of this section:

(1) The name, title, and signature of a source's responsible official who is certifying the accuracy of the report, an explanation of the event, and the reasons for not following the SSM plan.

(2) A description and date of the SSM event, its duration, and reason it qualifies as a SSM.

(3) An estimate of the solvent loss for the duration of the SSM event with supporting documentation.

[66 FR 19011, Apr. 12, 2001, as amended at 67 FR 16321, Apr. 5, 2002]

### **§ 63.2862 What records must I keep?**

(a) You must satisfy the recordkeeping requirements of this section by the compliance date for your source specified in Table 1 of §63.2834.

(b) Prepare a plan for demonstrating compliance (as described in §63.2851) and a SSM plan (as described in §63.2852). In these two plans, describe the procedures you will follow in obtaining and recording data, and determining compliance under normal operations or a SSM subject to the §63.2850(c)(2) or (d)(2) initial startup period or the §63.2850(e)(2) malfunction period. Complete both plans before the compliance date for your source and keep them on-site and readily available as long as the source is operational.

(c) If your source processes any listed oilseed, record the items in paragraphs (c)(1) through (5) of this section:

(1) For the solvent inventory, record the information in paragraphs (c)(1)(i) through (vii) of this section in accordance with your plan for demonstrating compliance:

- (i) Dates that define each operating status period during a calendar month.
  - (ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval.
  - (iii) Record the gallons of extraction solvent in the inventory on the beginning and ending dates of each normal operating period.
  - (iv) The gallons of all extraction solvent received, purchased, and recovered during each calendar month.
  - (v) All extraction solvent inventory adjustments, additions or subtractions. You must document the reason for the adjustment and justify the quantity of the adjustment.
  - (vi) The total solvent loss for each calendar month, regardless of the source operating status.
  - (vii) The actual solvent loss in gallons for each operating month.
- (2) For the weighted average volume fraction of HAP in the extraction solvent, you must record the items in paragraphs (c)(2)(i) through (iii) of this section:
- (i) The gallons of extraction solvent received in each delivery.
  - (ii) The volume fraction of each HAP exceeding 1 percent by volume in each delivery of extraction solvent.
  - (iii) The weighted average volume fraction of HAP in extraction solvent received since the end of the last operating month as determined in accordance with §63.2854(b)(2).
- (3) For each type of listed oilseed processed, record the items in paragraphs (c)(3)(i) through (vi) of this section, in accordance with your plan for demonstrating compliance:
- (i) The dates that define each operating status period. These dates must be the same as the dates entered for the extraction solvent inventory.
  - (ii) The operating status of your source such as normal operation, nonoperating, initial startup period, malfunction period, or exempt operation for each recorded time interval. On the log for each type of listed oilseed that is not being processed during a normal operating period, you must record which type of listed oilseed is being processed in addition to the source operating status.
  - (iii) The oilseed inventory for the type of listed oilseed being processed on the beginning and ending dates of each normal operating period.
  - (iv) The tons of each type of listed oilseed received at the affected source each normal operating period.
  - (v) All listed oilseed inventory adjustments, additions or subtractions for normal operating periods. You must document the reason for the adjustment and justify the quantity of the adjustment.
  - (vi) The tons of each type of listed oilseed processed during each operating month.
- (d) After your source has processed listed oilseed for 12 operating months, and you are not operating during an initial startup period as described in §63.2850(c)(2) or (d)(2), or a malfunction period as described in §63.2850(e)(2), record the items in paragraphs (d)(1) through (5) of this section by the end of the calendar month following each operating month:
- (1) The 12 operating months rolling sum of the actual solvent loss in gallons as described in §63.2853(c).

(2) The weighted average volume fraction of HAP in extraction solvent received for the previous 12 operating months as described in §63.2854(b)(3).

(3) The 12 operating months rolling sum of each type of listed oilseed processed at the affected source in tons as described in §63.2855(c).

(4) A determination of the compliance ratio. Using the values from §§63.2853, 63.2854, 63.2855, and Table 1 of §63.2840, calculate the compliance ratio using Equation 2 of §63.2840.

(5) A statement of whether the source is in compliance with all of the requirements of this subpart. This includes a determination of whether you have met all of the applicable requirements in §63.2850.

(e) For each SSM event subject to an initial startup period as described in §63.2850(c)(2) or (d)(2), or a malfunction period as described in §63.2850(e)(2), record the items in paragraphs (e)(1) through (3) of this section by the end of the calendar month following each month in which the initial startup period or malfunction period occurred:

(1) A description and date of the SSM event, its duration, and reason it qualifies as an initial startup or malfunction.

(2) An estimate of the solvent loss in gallons for the duration of the initial startup or malfunction period with supporting documentation.

(3) A checklist or other mechanism to indicate whether the SSM plan was followed during the initial startup or malfunction period.

### **§ 63.2863 In what form and how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for review in accordance with §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on-site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, in accordance with §3.10(b)(1). You can keep the records off-site for the remaining 3 years.

### **Other Requirements and Information**

### **§ 63.2870 What parts of the General Provisions apply to me?**

Table 1 of this section shows which parts of the General Provisions in §§63.1 through 63.15 apply to you. Table 1 of §63.2870 follows:

**Table 1 of §63.2870—Applicability of 40 CFR Part 63, Subpart A, to 40 CFR, Part 63, Subpart GGGG**

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Brief description of requirement</b>	<b>Applies to subpart</b>	<b>Explanation</b>
§63.1	Applicability	Initial applicability determination; applicability after standard established; permit requirements; extensions; notifications	Yes	
§63.2	Definitions	Definitions for part 63 standards	Yes	Except as specifically provided in this subpart.
§63.3	Units and abbreviations	Units and abbreviations for part 63 standards	Yes	
§63.4	Prohibited activities and circumvention	Prohibited activities; compliance date; circumvention; severability	Yes	
§63.5	Construction/reconstruction	Applicability; applications; approvals	Yes	Except for subsections of §63.5 as listed below.
§63.5(c)	[Reserved]			
§63.5(d)(1)(ii)(H)	Application for approval	Type and quantity of HAP, operating parameters	No	All sources emit HAP. Subpart GGGG does not require control from specific emission points.
§63.5(d)(1)(ii)(I)	[Reserved]			
§63.5(d)(1)(iii), (d)(2), (d)(3)(ii)		Application for approval	No	The requirements of the application for approval for new, reconstructed and significantly modified sources are described in §63.2860(b) and (c) of subpart GGGG. General provision requirements for identification of HAP emission points or estimates of actual emissions are not required. Descriptions of control and methods, and the estimated and actual control efficiency of such do not apply. Requirements for

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
				describing control equipment and the estimated and actual control efficiency of such equipment apply only to control equipment to which the subpart GGGG requirements for quantifying.
§63.6	Applicability of General Provisions	Applicability	Yes	Except for subsections of §63.6 as listed below.
§63.6(b)(1)–(3)	Compliance dates, new and reconstructed sources		No	Section 63.2834 of subpart GGGG specifies the compliance dates for new and reconstructed sources.
§63.6(b)(6)	[Reserved]			
§63.6(c)(3)–(4)	[Reserved]			
§63.6(d)	[Reserved]			
§63.6(e)(1) through (e)(3)(ii) and §63.6(e)(3)(v) through (vii)	Operation and maintenance requirements		Yes	Minimize emissions to the extent practical.
§63.6(e)(3)(iii)	Operation and maintenance requirements		No	Minimize emissions to the extent practical
§63.6(e)(3)(iv)	Operation and maintenance requirements		No	Report SSM and in accordance with §63.2861(c) and (d).
§63.6(e)(3)(viii)	Operation and maintenance requirements		Yes	Except, report each revision to your SSM plan in accordance with §63.2861(c) rather than §63.10(d)(5) as required under §63.6(e)(3) (viii).
§63.6(e)(3)(ix)	Title V permit		Yes	
§63.6(f)–(g)	Compliance with nonopacity emission standards except during SSM	Comply with emission standards at all times except during SSM	No	Subpart GGGG does not have nonopacity requirements.
§63.6(h)	Opacity/Visible emission (VE) standards		No	Subpart GGGG has no opacity or VE standards.
§63.6(i)	Compliance extension	Procedures and criteria for	Yes	

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
		responsible agency to grant compliance extension		
§63.6(j)	Presidential compliance exemption	President may exempt source category from requirement to comply with subpart	Yes	
§63.7	Performance testing requirements	Schedule, conditions, notifications and procedures	Yes	Subpart GGGG requires performance testing only if the source applies additional control that destroys solvent. Section 63.2850(a)(6) requires sources to follow the performance testing guidelines of the General Provisions if a control is added.
§63.8	Monitoring requirements		No	Subpart GGGG does not require monitoring other than as specified therein.
§63.9	Notification requirements	Applicability and state delegation	Yes	Except for subsections of §63.9 as listed below.
§63.9(b)(2)	Notification requirements	Initial notification requirements for existing sources	No	Section 63.2860(a) of subpart GGGG specifies the requirements of the initial notification for existing sources.
§63.9(b)(3)–(5)	Notification requirements	Notification requirement for certain new/reconstructed sources	Yes	Except the information requirements differ as described in §63.2860(b) of subpart GGGG.
§63.9(e)	Notification of performance test	Notify responsible agency 60 days ahead	Yes	Applies only if performance testing is performed.
§63.9(f)	Notification of VE/opacity observations	Notify responsible agency 30 days ahead	No	Subpart GGGG has no opacity or VE standards.
§63.9(g)	Additional notifications when using a continuous monitoring system (CMS)	Notification of performance evaluation; Notification using COMS data; notification that exceeded criterion	No	Subpart GGGG has no CMS requirements.

<b>General provisions citation</b>	<b>Subject of citation</b>	<b>Brief description of requirement</b>	<b>Applies to subpart</b>	<b>Explanation</b>
		for relative accuracy		
§63.9(h)	Notification of compliance status	Contents	No	Section 63.2860(d) of subpart GGGG specifies requirements for the notification of compliance status.
§63.10	Recordkeeping/reporting	Schedule for reporting, record storage	Yes	Except for subsections of §63.10 as listed below.
§63.10(b)(2)(i)	Recordkeeping	Record SSM event	Yes	Applicable to periods when sources must implement their SSM plan as specified in subpart GGGG.
§63.10(b)(2)(ii)–(iii)	Recordkeeping	Malfunction of air pollution equipment	No	Applies only if air pollution control equipment has been added to the process and is necessary for the source to meet the emission limit.
§63.10(b)(2)(vi)	Recordkeeping	CMS recordkeeping	No	Subpart GGGG has no CMS requirements.
§63.10(b)(2)(viii)–(ix)	Recordkeeping	Conditions of performance test	Yes	Applies only if performance tests are performed. Subpart GGGG does not have any CMS opacity or VE observation requirements.
§63.10(b)(2)(x)–(xii)	Recordkeeping	CMS, performance testing, and opacity and VE observations recordkeeping	No	Subpart GGGG does not require CMS.
§63.10(c)	Recordkeeping	Additional CMS recordkeeping	No	Subpart GGGG does not require CMS.
§63.10(d)(2)	Reporting	Reporting performance test results	Yes	Applies only if performance testing is performed.
§63.10(d)(3)	Reporting	Reporting opacity or VE observations	No	Subpart GGGG has no opacity or VE standards.
§63.10(d)(4)	Reporting	Progress reports	Yes	Applies only if a condition of compliance extension exists.
§63.10(d)(5)	Reporting	SSM reporting	No	Section 63.2861(c) and

General provisions citation	Subject of citation	Brief description of requirement	Applies to subpart	Explanation
				(d) specify SSM reporting requirements.
§63.10(e)	Reporting	Additional CMS reports	No	Subpart GGGG does not require CMS.
§63.11	Control device requirements	Requirements for flares	Yes	Applies only if your source uses a flare to control solvent emissions. Subpart GGGG does not require flares.
§63.12	State authority and delegations	State authority to enforce standards	Yes	
§63.13	State/regional addresses	Addresses where reports, notifications, and requests are sent	Yes	
§63.14	Incorporation by reference	Test methods incorporated by reference	Yes	
§63.15	Availability of information and confidentiality	Public and confidential information	Yes	

[66 FR 19011, Apr. 12, 2001, as amended at 67 FR 16321, Apr. 5, 2002; 71 FR 20463, Apr. 20, 2006]

**§ 63.2871 Who implements and enforces this subpart?**

(a) This subpart can be implemented by us, the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency, as well as the U.S. EPA, has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if 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 section 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are as follows:

- (1) Approval of alternative nonopacity emissions standards under §63.6(g).
- (2) Approval of alternative opacity standards under §63.6(h)(9).
- (3) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f) and as defined in §63.90.
- (4) Approval of major alternatives to monitoring under §63.8(f) and as defined in §63.90.
- (5) Approval of major alternatives to recordkeeping and reporting under §63.10(f) and as defined in §63.90.

## § 63.2872 What definitions apply to this subpart?

Terms used in this subpart are defined in the sources listed:

- (a) The Clean Air Act, section 112(a).
- (b) In 40 CFR 63.2, the NESHAP General Provisions.
- (c) In this section as follows:

*Accounting month* means a time interval defined by a business firm during which corporate economic and financial factors are determined on a consistent and regular basis. An accounting month will consist of approximately 4 to 5 calendar weeks and each accounting month will be of approximate equal duration. An accounting month may not correspond exactly to a calendar month, but 12 accounting months will correspond exactly to a calendar year.

*Actual solvent loss* means the gallons of solvent lost from a source during 12 operating months as determined in accordance with §63.2853.

*Agricultural product* means any commercially grown plant or plant product.

*Allowable HAP loss* means the gallons of HAP that would have been lost from a source if the source was operating at the solvent loss factor for each listed oilseed type. The allowable HAP loss in gallons is determined by multiplying the tons of each oilseed type processed during the previous 12 operating months, as determined in accordance with §63.2855, by the corresponding oilseed solvent loss factor (gal/ton) listed in Table 1 of §63.2840, and by the dimensionless constant 0.64, and summing the result for all oilseed types processed.

*Area source* means any source that does not meet the major source definition.

*As received* is the basis upon which all oilseed measurements must be determined and refers to the oilseed chemical and physical characteristics as initially received by the source and prior to any oilseed handling and processing.

*Batch operation* means any process that operates in a manner where the addition of raw material and withdrawal of product do not occur simultaneously. Typically, raw material is added to a process, operational steps occur, and a product is removed from the process. More raw material is then added to the process and the cycle repeats.

*Calendar month* means 1 month as specified in a calendar.

*Compliance date* means the date on which monthly compliance recordkeeping begins. For existing sources, recordkeeping typically begins 3 years after the effective date of the subpart. For new and reconstructed sources, recordkeeping typically begins upon initial startup, except as noted in §63.2834.

*Compliance ratio* means a ratio of the actual HAP loss in gallons from the previous 12 operating months to an allowable HAP loss in gallons, which is determined by using oilseed solvent loss factors in Table 1 of §63.2840, the weighted average volume fraction of HAP in solvent received for the previous 12 operating months, and the tons of each type of listed oilseed processed in the previous 12 operating months. Months during which no listed oilseed is processed, or months during which the §63.2850(c)(2) or (d)(2) initial startup period or the §63.2850(e)(2) malfunction period applies, are excluded from this calculation. Equation 2 of §63.2840 is used to calculate this value. If the value is less than or equal to 1.00, the source is in compliance. If the value is greater than 1.00, the source is deviating from compliance.

*Continuous operation* means any process that adds raw material and withdraws product simultaneously. Mass, temperature, concentration and other properties typically approach steady-state conditions.

*Conventional desolventizer* means a desolventizer toaster that operates with indirect and direct-contact steam to remove solvent from the extracted meal. Oilseeds processed in a conventional desolventizer produce crude vegetable oil and crude meal products, such as animal feed.

*Corn germ dry milling* means a source that processes corn germ that has been separated from the other corn components using a "dry" process of mechanical chafing and air sifting.

*Corn germ wet milling* means a source that processes corn germ that has been separated from other corn components using a "wet" process of centrifuging a slurry steeped in a dilute sulfurous acid solution.

*Exempt period* means a period of time during which a source processes agricultural products not defined as listed oilseed.

*Extraction solvent* means an organic chemical medium used to remove oil from an oilseed. Typically, the extraction solvent is a commercial grade of hexane isomers which have an approximate HAP content of 64 percent by volume.

*Hazardous air pollutant (HAP)* means any substance or mixture of substances listed as a hazardous air pollutant under section 112(b) of the Clean Air Act, as of April 12, 2001.

*Initial startup date* means the first calendar day that a new, reconstructed or significantly modified source processes any listed oilseed.

*Initial startup period* means a period of time from the initial startup date of a new, reconstructed or significantly modified source, for which you choose to operate the source under an initial startup period subject to §63.2850(c)(2) or (d)(2). During an initial startup period, a source complies with the standards by minimizing HAP emissions to the extent practical. The initial startup period following initial startup of a new or reconstructed source may not exceed 6 calendar months. The initial startup period following a significant modification may not exceed 3 calendar months. Solvent and oilseed inventory information recorded during the initial startup period is excluded from use in any compliance ratio determinations.

*Large cottonseed plant* means a vegetable oil production process that processes 120,000 tons or more of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

*Malfunction period* means a period of time between the beginning and end of a process malfunction and the time reasonably necessary for a source to correct the malfunction for which you choose to operate the source under a malfunction period subject to §63.2850(e)(2). This period may include the duration of an unscheduled process shutdown, continued operation during a malfunction, or the subsequent process startup after a shutdown resulting from a malfunction. During a malfunction period, a source complies with the standards by minimizing HAP emissions to the extent practical. Therefore, solvent and oilseed inventory information recorded during a malfunction period is excluded from use in any compliance ratio determinations.

*Mechanical extraction* means removing vegetable oil from oilseeds using only mechanical devices such as presses or screws that physically force the oil from the oilseed. Mechanical extraction techniques use no organic solvents to remove oil from an oilseed.

*Nonoperating period* means any period of time in which a source processes no agricultural product. This operating status does not apply during any period in which the source operates under an initial startup period as described in §63.2850(c)(2) or (d)(2), or a malfunction period, as described in §63.2850(e)(2).

*Normal operating period* means any period of time in which a source processes a listed oilseed that is not categorized as an initial startup period as described in §63.2850(c)(2) or (d)(2), or a malfunction period, as described in §63.2850(e)(2). At the beginning and ending dates of a normal operating period, solvent and oilseed inventory information is recorded and included in the compliance ratio determination.

*Oilseed or listed oilseed* means the following agricultural products: corn germ, cottonseed, flax, peanut, rapeseed (for example, canola), safflower, soybean, and sunflower.

*Oilseed solvent loss factor* means a ratio expressed as gallons of solvent loss per ton of oilseed processed. The solvent loss factors are presented in Table 1 of §63.2840 and are used to determine the allowable HAP loss.

*Operating month* means any calendar or accounting month in which a source processes any quantity of listed oilseed, excluding any entire calendar or accounting month in which the source operated under an initial startup period as described in §63.2850(c)(2) or (d)(2), or a malfunction period as described in §63.2850(e)(2). An operating month may include time intervals characterized by several types of operating status. However, an operating month must have at least one normal operating period.

*Significant modification* means the addition of new equipment or the modification of existing equipment that:

- (1) Significantly affects solvent losses from your vegetable oil production process;
- (2) The fixed capital cost of the new components represents a significant percentage of the fixed capital cost of building a comparable new vegetable oil production process;
- (3) The fixed capital cost of the new equipment does not constitute reconstruction as defined in §63.2; and
- (4) Examples of significant modifications include replacement of or major changes to solvent recovery equipment such as extractors, desolventizer-toasters/dryer-coolers, flash desolventizers, and distillation equipment associated with the mineral oil system, and equipment affecting desolventizing efficiency and steady-state operation of your vegetable oil production process such as flaking mills, oilseed heating and conditioning equipment, and cracking mills.

*Small cottonseed plant* means a vegetable oil production process that processes less than 120,000 tons of cottonseed and other listed oilseed during all normal operating periods in a 12 operating months period used to determine compliance.

*Solvent extraction* means removing vegetable oil from listed oilseed using an organic solvent in a direct-contact system.

*Solvent working capacity* means the volume of extraction solvent normally retained in solvent recovery equipment. Examples include components such as the solvent extractor, desolventizer-toaster, solvent storage and working tanks, mineral oil absorption system, condensers, and oil/solvent distillation system.

*Specialty desolventizer* means a desolventizer that removes excess solvent from soybean meal using vacuum conditions, energy from superheated solvent vapors, or reduced operating conditions (e.g., temperature) as compared to the typical operation of a conventional desolventizer. Soybeans processed in a specialty desolventizer result in high-protein vegetable meal products for human and animal consumption, such as calf milk replacement products and meat extender products.

*Vegetable oil production process* means the equipment comprising a continuous process for producing crude vegetable oil and meal products, including specialty soybean products, in which oil is removed from listed oilseeds through direct contact with an organic solvent. Process equipment typically includes the following components: oilseed preparation operations (including conditioning, drying, dehulling, and cracking), solvent extractors, desolventizer-toasters, meal dryers, meal coolers, meal conveyor systems, oil distillation units, solvent evaporators and condensers, solvent recovery system (also referred to as a mineral oil absorption system), vessels storing solvent-laden materials, and crude meal packaging and storage vessels. A vegetable oil production process does not include vegetable oil refining operations (including operations such as bleaching, hydrogenation, and deodorizing) and operations that engage in additional chemical treatment of crude soybean meals produced in specialty desolventizer units (including operations such as soybean isolate production).

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

Addendum to the  
Technical Support Document for a Part 70 Operating Permit Renewal

<b>Source Description and Location</b>
--

Source Name:	Archer Daniel Midland Company
Source Location:	2191 West County Road 0 N/S, Frankfort, Indiana 46041
County:	Clinton
SIC Code:	2075
Operating Permit No.:	T023-6006-00011
Operating Permit Issuance Date:	July 13, 2004
Operating Permit Renewal No.:	023-26991-00011
Permit Reviewer:	Jean Boling

On September 4, 2009, the Office of Air Quality (OAQ) had a notice published in The Times in Frankfort, Indiana, stating that Archer Daniel Midland Company had applied to renew its Part 70 Operating Permit to continue to operate its soybean processing and oil refining operation. The notice also stated that OAQ proposed to issue a permit for this renewal 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.

Upon further review, OAQ has decided to make the following revisions to the permit (deleted language appears as ~~struck through~~ and new language appears in **bold**).

On October 5, 2009, Archer Daniel Midland Company submitted comments on the proposed Part 70 permit renewal. The summary of the comments is as follows:

Comment 1: Condition D.1.2, PM/PM10 Minor Emission Limitations for PSD, lists Hull Conveyor, EU19, in the table. The Hull Conveyor is a totally enclosed conveyor and does not have emissions or emission points, therefore Archer Daniel Midland Company requests that OAQ remove the Hull Conveyor (EU19) from the table.

Response 1: IDEM, OAQ has revised condition D.1.2, PM/PM10 Minor Emission Limitations to remove the Hull Conveyor (EU19) from the table.

**D.1.2 PM/PM10 Minor Emission Limitations for PSD [326 IAC 2-2]**

(a) Pursuant to PSD SSM 023-24843-00011, the PM and PM10 emissions from the following units are limited as follows:

Unit (ID) *	PM Limit	PM10 Limit	Units for Limit
***			
Hull Screening (EU16)	0.00674	0.00674	lb/ton hulls processed
Hull Grinder (EU17)	0.00674	0.00674	
<del>Hull Conveyor (EU19)</del>	<del>0.064</del>	<del>0.034</del>	
***			

Comment 2: Condition D.1.2, PM/PM10 Minor Emission Limitations for PSD, lists the PM/PM10 Limits for Truck Meal, Hull and Hull Pellet Loadout, EU34, as 0.061/0.034 lb/ton meal produced. The correct emission limits for this emission unit is 0.27/0.1755 lb/ton beans processed. Archer Daniel Midland Company requests that OAQ change the PM/PM10 Limits for Truck Meal, Hull and Hull Pellet Loadout (EU34) to 0.27/0.1755 lb/ton beans processed.

Response 2: IDEM, OAQ has revised condition D.1.2, PM/PM10 Minor Emission Limitations to change the PM/PM10 Limits for Truck Meal, Hull and Hull Pellet Loadout (EU34) to 0.27/0.1755 lb/ton beans processed. The potential to emit PM/PM10 remains below the significant level for PSD SSM 023-2843-00011.

D.1.2 PM/PM10 Minor Emission Limitations for PSD [326 IAC 2-2]

- (a) Pursuant to PSD SSM 023-24843-00011, the PM and PM10 emissions from the following units are limited as follows:

Unit (ID) *	PM Limit	PM10 Limit	Units for Limit
***			
Meal Storage Unit (EU30)	0.025	0.0063	lb/ton meal produced
Truck Meal, Hull and Hull Pellet Loadout (EU34)	<del>0.061</del> <b>0.27</b>	<del>0.034</del> <b>0.1755</b>	
***			

No change will be made to the original TSD. The OAQ prefers that the TSD reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.



Archer Daniels Midland Company  
2191 West County Road 0 N/S, Frankfort, IN 46041

Emission Point (stack) ID(s)	Emission Unit ID(s)	Control Device ID(s)	Process/Unit Name	Baseline Actual Throughput (tpy)	Baseline "Could Have Accommodated" Throughput (tpy)	Projected Actual / Potential Throughput (tpy)	Emission Factors		Emission Factor Basis / Source	Controls	Control Efficiency (%)		Capture Efficiency (%)	Baseline Actual (BA) Emissions (tpy)		Baseline "Could Have Accommodated" (CHA) Emissions (tpy)		Projected Actual (PA) Emissions (tpy)		PA-BA Increase		PA-CHA Increase		Notes	Comments						
							PM	PM10			Units	PM		PM10	PM	PM10	PM	PM10	PM	PM10	PM	PM10	PM			PM10	PM	PM10			
Fugitive	EU35 & EU36	Fugitive	Rail Meal and Hull Pellet Loadout	792,898	876,000	1,314,000	0.270	0.1755	lb/ton of beans processed	PM - AP-42; Table 9.11.1-1; Meal loadout; 11/05; PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Uncontrolled factor	0.00%	0.00%	95%	5.352	3.479	5.913	3.843	8.870	5.765	3.517	2.286	2.957	1.922	b, d	Throughput = total beans processed (Crush Rate) x bean density (lb/bu).					
EP12	EU31	ML-1	Meal Surge Tank	581,114	700,800	1,051,200	0.025	0.0063	lb/ton of meal produced	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.037	0.009	0.045	0.011	0.067	0.017	0.030	0.008	0.022	0.006	a	BA Throughput from plant records; for CHA and PA, Throughput = Crush Rate x meal-to-crush ratio.					
EP12	EU32	ML-1	Hull Surge Tank	46,502	61,320	91,980	0.025	0.0063	lb/ton of hulls processed	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.003	0.001	0.004	0.001	0.006	0.001	0.003	0.001	0.002	0.000	a, d	BA Throughput = total hulls produced; for CHA and PA, Throughput = crush x hull factor (see "Constants" tab).					
			<b>Meal Clay Storage</b>																												
EP13	EU36	MC-1	Meal Clay Storage Unit	2,927	4,380	6,570	0.571	0.4000	lb/ton of clay rec'd	WebFIRE; SCC 3-05-009-05; Raw clay transfer. PM10 assumed to equal 70% of PM (minimum value from AP42; Table B.2.2; Category 4; 9/90).	Uncontrolled factor	99.49%	99.49%	100%	0.004	0.003	0.006	0.004	0.010	0.007	0.005	0.004	0.003	0.002	a, d	BA Throughput = total meal clay used; for CHA and PA, Throughput = crush x meal clay factor (see "Constants" tab).					
																			Totals =	-20.12	-10.02	-24.68	-13.20								
																			Excluded from Increase =			4.55	3.18								

NOTES:  
a Emissions = Throughput (tons/yr) x EF (lb/ton) x (Capture Efficiency) x (1 - Control Efficiency) x (1 ton/2000 lb)  
b Emissions = Throughput (tons/yr) x EF (lb/ton) x (1 - Capture Efficiency) x (1 - Control Efficiency) x (1 ton/2000 lb)  
c Emissions = Throughput (tons/yr) x EF (lb/ton) x (Capture Efficiency) x (1 ton/2000 lb)  
d These units are not being modified; instead they will experience increased utilization. Since the respective emission factors for PA, BA and CHA are the same for a given unit, calculation of PA - CHA is an adequate measure of the increased emissions from these units.

**Appendix A: Emission Calculations**  
**Calculation Constants for PM/PM10 Spreadsheet on pages 1 and 2**

**Company Name: Archer Daniels Midland Company**  
**Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041**  
**Permit No: SSM 023-24843-00011**

<b>Parameter</b>	<b>Value</b>	<b>Units</b>	<b>Basis</b>
Bean Density	60	lb/bu	Industry Standard Factor
Baseline Capacity	80,000	bu/day	Current Permit Limit (12-month avg.)
Future Capacity	120,000	bu/day	Proposed Permit Limit (12-month avg.)
Current Potential Operating Days	365	days/yr	
Future Potential Operating Days	365	days/yr	
Collet Cooler Current Potential Throughput	0	tpy	Unit has been removed from plant.
Collet Cooler Future Potential Throughput	0	tpy	Unit has been removed from plant.
Current Plant Storage Capacity	130,500	tons	Equipment capacity.
Future Plant Storage Capacity	130,500	tons	Equipment capacity (not being modified).
Potential Hull-to-Crush Ratio	7.0%	wt. %	Industry Standard Factor
Potential Pellet-to-Crush Ratio	7.0%	wt. %	Industry Standard Factor
Potential Meal-to-Crush Ratio	80.0%	wt. %	Frankfort factor.
Potential Meal Clay-to-Crush Ratio	0.50%	wt. %	Based on allowable
Potential Filter Aid-to-Oil Ratio	0.58%	wt. %	2001-2006 Max x 1.5
Potential Bleaching Clay-to-Oil Ratio	0.56%	wt. %	2001-2006 Max x 1.5
Potential Slurry/Precoat-to-Oil Ratio	1.14%	wt. %	Sum of bleaching clay and filter aid
Vegetable Oil-to-Crush Ratio	11.5	lb/bu	Industry Standard Factor

**Appendix A: Emission Calculations**  
**Baseline Data for PM/PM10 Spreadsheet on pages 1 and 2**

**Company Name: Archer Daniels Midland Company**  
**Source Address: 2191 West County Road 0 N/S, Frankfort, IN 46041**  
**Permit No: SSM 023-24843-00011**

<b>Parameter</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2004/05 Avg.</b>	<b>2005/06 Avg.</b>
Beans Received by Truck (bu)	17,884,334	20,789,940	22,083,511	19,337,137	21,436,726
Beans Received by Rail (bu)	5,467,847	5,012,974	5,409,159	5,240,411	5,211,067
Crush (bu)	23,705,588	25,497,519	27,362,378	24,601,554	26,429,949
Hulls Produced (lbs)	77,919,763	90,420,248	95,588,242	84,170,006	93,004,245
Pellets Produced (tpy)	77,919,763	90,420,248	74,026,550	84,170,006	82,223,399
Meal Produced (lbs)	1,054,726,434	1,128,849,238	1,195,604,831	1,091,787,836	1,162,227,035
Meal Clay Used (lbs)	5,782,590	6,229,200	5,480,340	6,005,895	5,854,770
Refinery Clay (lbs)	2,204,463	2,419,468	3,112,474	2,311,966	2,765,971
Hexane Loss (gal)	98,951	115,781	126,094	107,366	120,938
Select 350 Clay (lbs)		145,975	205,522		175,749

# Indiana Department of Environmental Management Office of Air Quality

## Technical Support Document (TSD) for a Part 70 Operating Permit Renewal

### Source Background and Description

**Source Name:** Archer Daniels Midland Company  
**Source Location:** 2191 West County Road 0 N/S, Frankfort, Indiana 46041  
**County:** Clinton  
**SIC Code:** 2075  
**Permit Renewal No.:** 023-26991-00011  
**Permit Reviewer:** Jean Boling

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Archer Daniels Midland Company (ADM) relating to the operation of a soybean processing and oil refining operation.

### History

On September 16, 2008, Archer Daniels Midland Company submitted an application to the OAQ requesting to renew its operating permit. Archer Daniels Midland Company was issued a Part 70 Operating Permit on July 13, 2004.

On March 6, 2009, Archer Daniels Midland Company submitted an application to the OAQ requesting a permit modification to combine two dc stacks into one and add bin filters to three emission units. These changes will be incorporated through this Part 70 Operating Permit Renewal No. T023-26991-00011.

### Permitted Emission Units and Pollution Control Equipment

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

- (a) One (1) rail unloading operation, identified as EU01, constructed in 1946 and modified in 2004, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01), including the following:
  - (1) Two (2) discharge drag conveyors (S-1 and S-1A);
- (b) One (1) truck unloading operation, identified as EU02, constructed in 1946, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (c) Two (2) elevator legs (S-3 and S-4), identified as EU03, constructed in 1946, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (d) One (1) drag conveyor to grain storage (S-5), identified as EU04, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 1,444,500 tons per year, controlled for particulate matter by one (1) baghouse (GR-1) and exhausting to one (1) stack (EP01);
- (e) Concrete storage silos, identified as EU05, constructed in 1946, with a maximum throughput of 1,444,500 tons per year;

- (f) Two (2) steel storage tank vents, identified as EU06, constructed in 1965, with a maximum throughput of 120,000 tons per year and each steel storage tank vent exhausting through two (2) exhaust fans (per tank) to the atmosphere;
- (g) Two (2) conveyors from grain storage (S-6 and S-7), identified as EU07, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (h) Two (2) column grain dryers, identified as EU08, both constructed in 1978 with a maximum throughput of 1,314,000 tons per year;
- (i) One (1) grain cleaner (P-120), identified as EU09, constructed in June of 1990 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (j) One (1) E/W bean dryer, identified as EU10, constructed in February of 1986, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
- (k) Cracking rolls, identified as EU11, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year;
- (l) One (1) hull separator system, identified as EU12, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
- (m) One (1) conditioner, identified as EU13, constructed in February of 1986 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-06) and one (1) baghouse (BH-06A) in series and exhausting to one (1) stack (EP04);
- (n) One (1) flaking operation, identified as EU14, constructed in June of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-07) and exhausting to one (1) stack (EP05);
- (o) One (1) secondary hull screening operation, identified as EU16, constructed in August of 1994 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one baghouse (CE-05) and three (3) cyclones (CE-19, CE-19A and CE-19B) in parallel and exhausting to one (1) stack (EP03);
- (p) Two (2) hull grinders (H-250 and H-251), identified as EU17, constructed in June of 1989 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-20) and one (1) baghouse (CE-20A) in series and exhausting to one (1) stack (EP20);
- (q) Two (2) hull storage bins, identified as EU18, constructed in 1946, with a maximum throughput of 91,980 tons per year;
- (r) One (1) hull conveyor, identified as EU19, constructed in 1946 and approved for modification in 2008, with a maximum throughput of 91,980 tons per year;
- (s) One (1) pellet mill, identified as EU20, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-08) and exhausting to one (1) stack (EP07);

- (t) One (1) pellet cooler, identified as EU21, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-08) and exhausting to one (1) stack (EP07);
- (u) One (1) pellet storage unit, identified as EU22, constructed in June of 1992, with a maximum throughput of 91,980 tons per year, controlled for particulate matter by one (1) cyclone (CE-18) and one (1) baghouse (CE-05) in series and exhausting to one (1) stack (EP03);
- (v) One (1) dryer deck, DTDC - Deck #1, identified as EU23, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-09) and exhausting to one (1) stack (EP08A);
- (w) Two (2) DTDC dryer decks:
  - (1) DTDC - Deck #2, identified as EU24, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-10) and exhausting to one (1) stack (EP08A);
  - (2) DTDC - Deck #3, identified as EU24A, approved for construction in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-10A) and exhausting to one (1) stack (EP09A);
- (x) One (1) DTDC - cooler deck, identified as EU25, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-11) and exhausting to one (1) stack (EP10);
- (y) One (1) meal conveyor (from DTDC to meal screens) (P-152), identified as EU26, constructed in June of 1991 and approved for reconstruction in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (z) One (1) meal sifting operation, identified as EU27, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year;
- (aa) One (1) meal grinding operation, identified as EU28, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (bb) One (1) meal storage elevator leg (P-512), identified as EU29, constructed in June of 1991 and approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by one (1) baghouse (BH-2A) and exhausting to one (1) stack (EP11);
- (cc) One (1) meal storage unit (two tanks), identified as EU30, constructed in 1958 and approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, controlled for particulate matter by two (2) bin vent filters (BH-30A and BH-30B), one on each tank and each filter exhausting to individual stacks (EP30A and EP30B);
- (dd) Two (2) meal surge tanks, identified as EU31, constructed in 1986 and approved for approved for modification in 2008, with a maximum throughput of 1,051,200 tons per year, a portion of emissions controlled for particulate matter by one (1) bin vent filter (BH-31) and exhausting to one (1) stack (EP31);

- (ee) One (1) hull surge tank, identified as EU32, constructed in 1986, with a maximum throughput of 91,980 tons per year, a portion of emissions controlled for particulate matter by one (1) bin vent filter (BH-31) and exhausting to one (1) stack (EP31);
- (ff) One (1) enclosed mixing conveyor, identified as EU33, constructed in 1988, with a maximum throughput of 1,143,180 tons per year, conveying to the truck and rail meal and hull pellet loadout operations;
- (gg) One (1) truck meal, hull and hull pellet loadout operation, identified as EU34, constructed in 1988, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (ML-1) and exhausting to one (1) stack (EP12);
- (hh) One (1) rail meal, hull and hull pellet loadout operation, identified as EU35, constructed in 1988, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (ML-1) and exhausting to one (1) stack (EP12);
- (ii) One (1) meal clay storage unit, identified as EU36, constructed in 1986, with a maximum throughput of 6,570 tons per year, controlled for particulate matter by one (1) baghouse (MC-1) and exhausting to one (1) stack (EP13);
- (jj) One (1) refinery clay storage unit, identified as EU37, constructed in 1992, with a maximum throughput of 4,500 tons per year, controlled for particulate matter by one (1) baghouse (RCB) and exhausting to one (1) stack (EP14);
- (kk) One (1) oil extraction process using hexane solvent, identified as EU38, constructed in May of 1985 and approved for modification in 2008, with a maximum throughput of 1,314,000 tons per year and emissions released through a number of exit streams in the process collectively called the "hexane bubble". The process is equipped with one (1) mineral oil absorber/scrubber (CE-22), which exhausts through one (1) stack (EP25). This process is also equipped with a once-through cold water condenser located between the vent condenser and the mineral oil absorber/scrubber;
- (ll) One (1) bean cleaner (D-3), identified as EU43, constructed in 1998, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) baghouse (CE-21) and exhausting to one (1) stack (EP24);
- (mm) One (1) vertical seed conditioner, also referred to as a steam-heated soybean heater, identified as EU44, approved for construction in 2008, with a maximum throughput of 1,314,000 tons per year, controlled for particulate matter by one (1) cyclone (CE-44) and exhausting to one (1) stack (EP44);
- (nn) Boiler #1, identified as EU39, constructed in 1960, with a rated capacity of 62.5 MMBtu per hour and firing natural gas, vegetable oil, No. 2 distillate fuel oil, or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP15);
- (oo) Boiler #3, identified as EU41, constructed in 1992, with a rated capacity of 82.5 MMBtu per hour and firing natural gas, vegetable oil, No. 2 distillate fuel oil, or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP17);
- (pp) One (1) Refinery Boiler, identified as EU42, constructed in 2000, with a rated capacity of 13 MMBtu per hour and firing natural gas or No. 2 distillate fuel oil, exhausting to one (1) stack (EP18);
- (qq) Boiler #4, identified as EU46, approved for construction in 2008, with a rated capacity of 145 MMBtu per hour firing natural gas and 140 MMBtu firing vegetable oil, No. 2 distillate fuel oil or blends of vegetable oil and No. 2 distillate fuel oil, exhausting to one (1) stack (EP46);

- (rr) Approved in 2008 to stockpile soybean meal in railcars during plant shutdowns at a limited throughput of 100,000 tons/year utilizing existing grain receiving/unloading pits EU01 and EU02, elevator leg EU03, conveyor EU28A, storage tanks EU30, surge tanks EU31, mixing conveyor EU33 and rail and truck meal loadout EU34 and EU35;

**Emission Units and Pollution Control Equipment Removed From the Source**

One (1) expander, identified as EU15, constructed in August of 1994, exhausting to one (1) stack (EP06);

**Insignificant Activities**

- (a) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6: One (1) parts washer, constructed after 1990. [326 IAC 8-3-2][326 IAC 8-3-5]
- (b) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment. [326 IAC 6-3-2]
- (c) The following activities with emissions equal to or less than insignificant thresholds:
  - (1) One (1) cooling tower (CT#7), identified as EU45, with a design recirculation rate of 1,500 gal/min. [326 IAC 2-2]
  - (2) One (1) silica clay storage silo, identified as EU47, constructed in 2002, with a maximum throughput of 450 tons per year, particulate emissions controlled by a baghouse (RC-2) and exhausting through one (1) stack (EP19). [326 IAC 6-3-2] [326 IAC 2-2]
  - (3) Six (6) Cooling Towers (CT#1 thru CT#6), identified as EU48, constructed from 1985 through 1996, three (3) with a design recirculation rate of 2315 gal/min, one (1) with a design recirculation rate of 1925 gal/min and two (2) with a design recirculation rates 1500 gal/min. [326 IAC 2-2]
  - (4) One (1) fire pump with a 230 horsepower engine, identified as EU49, constructed in 1985. [326 IAC 2-2]

**Stack Summary**

Stack ID	Operation	Height (ft)	Diameter (in)	Flow Rate (acfm)	Temperature (°F)
EP08A	DTDC Deck #1 & Deck #2	110.0	48.0	30,000	135
EP30A	Meal Storage Unit	102.0	8.0	1,000	Ambient
EP30B	Meal Storage Unit	102.0	8.0	1,000	Ambient
EP31	Two Meal Surge and Hull Surge Tank	69.57	8.0	1,000	Ambient

## Existing Approvals

Since the issuance of the Part 70 Operating Permit (023-6066-00011) on July 13, 2004, the source has constructed or has been operating under the following approvals as well:

Permit Type	Permit Number	Issuance Date
First Minor Source Modification	023-20324-00011	December 20, 2004
First Minor Permit Modification	023-19883-00011	February 17, 2005
First Administrative Amendment	023-21789-00011	December 15, 2005
First Significant Source Modification	023-21838-00011	December 22, 2008
First Significant Permit Modification	023-21909-00011	January 19, 2006
Second Significant Source Modification	023-24843-00011	March 19, 2008
Second Significant Permit Modification	023-25870-00011	May 7, 2008
Second Minor Source Modification	023-26411-00011	May 30, 2008
Third Significant Permit Modification	023-26542-00011	August 13, 2008

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous registrations and permits are superseded by this permit.

The following terms and conditions from previous approvals have been revised and incorporated in this Part 70 Operating Permit Renewal T023-26991-00011:

- (a) Incorporated Significant Permit Modification No. 023-27582-00011.
  - (1) A separate PM/PM<sub>10</sub> emission limit for the bean dryer, cracking rolls, hull separator and conditioner, identified as EU10, EU11, EU12 (added through SPM No. 023-28265-00011) and EU13, will be added to establish a separate limit for these emissions units when the baghouse is bypassed.
  - (2) The DTDC - Dryer Deck # 1 and Dryer Deck #2, identified as, EU23 and EU24, respectively, will exhaust into one stack. The emission points, identified as EP08 and EP09 will be combined into one emission point, identified as EP08A.
  - (3) The PM/PM<sub>10</sub> emission limits for each of the dryer decks, identified as EU23 and EU24, will be combined into a single limit for the two emission units.
  - (4) The meal storage unit (two tanks), identified as EU30, will exhaust through two bin vent filters, identified as BH-30A and BH-30B. One bin filter will be installed on each tank with each filter exhausting to individual stacks, identified as EP30A and EP30B.
  - (5) One bin filter, identified as BH-31 will be installed for the meal surge tanks (two tanks), identified as EU31 and the hull surge tank, identified as EU32. The bin filter will exhaust through one stack, identified as EP31.
- (b) Added six (6) cooling towers, identified as EU48, and one (1) fire pump, identified as EU49, to the list of permitted emission units in section A.2.
- (c) Modified several emission unit descriptions in section A.2 to provide more accurate descriptions and add construction dates for consistency.
- (d) Removed the parametric monitoring requirement for baghouses in section D.1.

- (e) Added condition C.11, Maintenance of Continuous Emission Monitoring Equipment, to the C section.
- (f) Added condition D.2.15, NOx Monitoring System Downtime, to the D section.
- (g) Incorporated Significant Permit Modification No. 023-28265-00011 to relocate the emissions from the Hull Separator (EU12) controlled for particulate matter by cyclone CE-07 and exhausting to stack EP05 to cyclone CE-06 and baghouse BH-06A in series and exhausting to stack EP04.

**Enforcement Issue**

There are no enforcement actions pending.

**County Attainment Status**

The source is located in Clinton County

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

- (a) Ozone Standards
  - (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
  - (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph as attainment for the 8-hour ozone standard.
  - (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
  - (4) 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. Clinton 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) Clinton has been classified as attainment for PM<sub>2.5</sub>. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM<sub>2.5</sub> emissions, and the effective date of these rules was July 15<sup>th</sup>, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM<sub>10</sub> emissions as a surrogate for PM<sub>2.5</sub> emissions until 326 IAC 2-2 is revised.

- (c) Clinton 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.
- (d) This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980, therefore fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

### Emission Calculations

See Appendix A of this document for detailed emission calculations.

### Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	(ton/yr)
PM	> 250
PM <sub>10</sub>	> 250
SO <sub>2</sub>	> 250
VOC	> 250
CO	> 100 but < 250
NO <sub>x</sub>	> 100 but < 250

HAPS	(ton/yr)
Hexane	> 10
Total HAPs	> 25

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all criteria pollutants, PM, PM<sub>10</sub>, SO<sub>2</sub>, VOC, CO and NO<sub>x</sub> is equal to or greater than one hundred (100) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (c) Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

**Actual Emissions**

The following table shows the actual emissions from the source. This information reflects the 2006 OAQ emission data.

Pollutant	Actual Emissions (ton/yr)
PM	52.0
PM <sub>10</sub>	52.0
SO <sub>2</sub>	0.0
VOC	358.0
CO	35.0
NO <sub>x</sub>	42.0
HAP	not reported
Total HAPs	not reported

**Part 70 Permit Conditions**

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

- (a) Emission limitations and standards, including those operational requirements and limitations that assure compliance with all applicable requirements at the time of issuance of Part 70 Operating permits.
- (b) Monitoring and related record keeping requirements which assume that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

**Potential to Emit After Issuance**

The table below summarizes the potential to emit, reflecting all limits, of the significant emission units after controls. The control equipment is considered federally enforceable only after issuance of this Part 70 Operating permit.

Process/ Emission Unit	Potential to Emit (tons/yr)					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Rail Point Source, EU01	0	0	--	--	--	--
Truck Point Source, EU02	0.228	0.051	--	--	--	--
Grain Elevator, EU03	0.225	0.125	--	--	--	--
Grain Conveying to Storage, EU04	0.225	0.125	--	--	--	--
Grain Storage Bins (concrete) EU05	0.092	0.023	--	--	--	--
Grain Storage (two steel storage tanks) EU06	1.500	0.378	--	--	--	--
Grain Conveyor from Storage EU07	0.204	0.114	--	--	--	--

Process/ Emission Unit	Potential to Emit (tons/yr)					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Grain Dryers (two units) EU08	144.540	36.135	--	--	--	--
Grain Cleaner EU09	0.668	0.668	--	--	--	--
Bean Dryer, Cracking, Hull Separator and Conditioner EU10, 11, 12 & 13	1.964	1.277	--	--	--	--
Flaking Operation EU14	32.524	21.024	--	--	--	--
Hull Screening EU16	0.310	0.310	--	--	--	--
Hull Grinders (two units) EU17	0.310	0.310	--	--	--	--
Hull Storage EU18	0.006	0.001	--	--	--	--
Pellet Mill & Cooler EU20 & EU21	1.383	1.383	--	--	--	--
Pellet Storage EU22	0.006	0.001	--	--	--	--
Meal Dryer Deck #1 EU23	0.113	0.113	--	--	--	--
Meal Dryer Deck #2 EU24	4.149	4.149	--	--	--	--
Meal Dryer Deck #3 EU24A	4.149	4.149	--	--	--	--
Meal Cooler Deck EU25	1.158	1.158	--	--	--	--
Meal Conveyor EU26	0.164	0.091	--	--	--	--
Meal Sifter & Grinder EU27 & 28	2.278	2.278	--	--	--	--
Meal Storage Conveyor EU29	0.164	0.091	--	--	--	--
Meal Storage (two tanks) EU30	0.067	0.017	--	--	--	--
Meal Surge Tanks (two tanks) EU31	0.067	0.017	--	--	--	--
Hull Surge Tank EU32	0.006	0.001	--	--	--	--
Truck & Rail Meal Loadout EU34 & 35	0.859	0.559	--	--	--	--
Meal Clay Storage EU36	0.010	0.007	--	--	--	--

Process/ Emission Unit	Potential to Emit (tons/yr)					
	PM	PM <sub>10</sub>	SO <sub>2</sub>	VOC	CO	NO <sub>x</sub>
Refinery Clay Storage EU37	0.007	0.005	--	--	--	--
Oil Extraction Process EU38	0	0	--	662.10	--	--
Boiler #1 EU39	19.16	19.16	136.88	1.51	23.00	48.62
Boiler # 3 EU41	25.29	25.29	180.68	1.99	30.35	64.18
Refinery Boiler EU42	1.34	0.94	28.47	0.31	4.78	8.13
Bean Cleaner EU43	0	0	--	--	--	--
Vertical Seed Conditioner EU44	0.657	0.657	--	--	--	--
Cooling Tower EU45	0.132	0.132	--	--	--	--
Boiler #4 EU46	42.92	42.92	34.38	3.49	74.25	108.90
Silica Storage EU47	0.001	0	--	--	--	--
6 Cooling Towers EU48	5.203	5.203	--	--	--	--
Fire Pump EU49	0.127	0.127	0.118	0.145	0.384	1.783
<b>Total Emissions</b>	<b>191.722</b>	<b>168.505</b>	<b>380.528</b>	<b>669.55</b>	<b>132.764</b>	<b>231.613</b>
<b>Major Source Threshold</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>	<b>250</b>

- (a) This existing stationary source is major for PSD because the emissions of at least one attainment pollutant is greater than two hundred fifty (>250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) This type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3; however, there is an applicable New Source Performance Standard that was in effect on August 7, 1980; therefore fugitive emissions from the affected emission units are counted toward the determination of PSD and Emission Offset applicability.

**Federal Rule Applicability**

**CAM**

- (a) This source is subject to the provisions of 326 IAC 3-8 and 40 CFR Part 64 (Compliance Assurance Monitoring (CAM)). In order for this rule to apply, a pollutant-specific-emissions-unit at a source that requires a Part 70 or Part 71 permit must meet three criteria for a given pollutant:
  - (1) The unit has potential emissions (before controls), of the applicable regulated air pollutant, equal or greater than 100 percent of the amount required for a source to be classified as a major source,

- (2) The unit is subject to an applicable emission limitation or standard for the applicable regulated air pollutant, and
- (3) The unit uses a control device to achieve compliance with the applicable emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new emission unit and specified pollutant subject to CAM:

Emission Unit	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
<b>Grain Receiving</b>							
Truck - Point Source <sup>(a)</sup>	Baghouse	Y	22.75	0.23	100	N	N
Rail - Point Source <sup>(a)</sup>	Baghouse	Y	20.80	0.21	100	N	N
Grain Conveyor <sup>(a)</sup>	Baghouse	Y	44.06	0.22	100	N	N
Elevator Leg Vents <sup>(a)</sup>	Baghouse	Y	44.06	0.22	100	N	N
<b>Grain Cleaner/Hull Grinder</b>							
Grain Conveyor <sup>(a)</sup>	Baghouse	Y	40.08	0.20	100	N	N
Grain Cleaner <sup>(a)</sup>	Baghouse	Y	66.81	0.67	100	N	N
Vertical Seed Conditioner <sup>(a)</sup>	Cyclone	Y	6.64	0.66	100	N	N
Hull Screener <sup>(a)</sup>	Baghouse	Y	31.00	0.31	100	N	N
Hull Grinder <sup>(a)</sup>	Baghouse	Y	31.00	0.31	100	N	N
Pellet Storage <sup>(a)</sup>	Baghouse	Y	1.15	0.01	100	N	N
Hull Storage <sup>(a)</sup>	Baghouse	Y	1.15	0.01	100	N	N
<b>Grain Dryer</b>							
Bean Cleaner <sup>(a)</sup>	Baghouse	Y	492.75	4.93	100	Y	N
<b>Esher Wyss Dryer, Cracking, Separator and Conditioner</b>							
Esher Wyss Dryer Cracking, Separator and Conditioner <sup>(a)</sup>	Cyclone	Y	19.64	1.96	100	N	N
Esher Wyss Dryer, Cracking, Separator and Conditioner <sup>(a)</sup>	Baghouse	Y	103.51	1.04	100	Y	N
<b>Flaking</b>							
Flaker <sup>(a)</sup>	Cyclone	Y	325.24	32.52	100	Y	N
<b>Pellet Mill Cooler</b>							
Pellet Mill & Cooler <sup>(a)</sup>	Cyclone	Y	13.83	1.38	100	N	N
<b>DTDC</b>							
Meal Dryer Deck #1 <sup>(a)</sup>	Cyclone	Y	1.13	0.11	100	N	N
Meal Dryer Deck #2 <sup>(a)</sup>	Cyclone	Y	41.49	4.15	100	N	N
Meal Dryer Deck #3 <sup>(a)</sup>	Cyclone	Y	41.49	4.15	100	N	N
Meal Cooler Deck <sup>(a)</sup>	Cyclone	Y	11.58	1.16	100	N	N

Emission Unit	Control Device Used	Emission Limitation or Standard (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
Meal Conveyor <sup>(a)</sup>	Baghouse	Y	32.06	0.16	100	N	N
<b>Meal Grind/Sift/Storage</b>							
Meal Grinder & Sifter <sup>(a)</sup>	Baghouse	Y	227.98	2.28	100	Y	N
Meal Storage <sup>(a)</sup>	Baghouse	Y	13.14	0.07	100	N	N
Meal Storage Conveyor <sup>(a)</sup>	Baghouse	Y	32.06	0.16	100	N	N
<b>Meal Loadout</b>							
Meal Loadout <sup>(a)</sup>	Baghouse	Y	168.52	0.86	100	Y	N
Meal Surge Tanks (2) <sup>(a)</sup>	Baghouse	Y	13.14	0.07	100	N	N
Hull Surge Tank <sup>(a)</sup>	Baghouse	Y	1.15	0.01	100	N	N
<b>Meal Clay Storage</b>							
Meal Clay Storage Unit <sup>(a)</sup>	Baghouse	Y	1.88	.01	100	N	N
Refinery Clay Storage Unit <sup>(a)</sup>	Baghouse	Y	1.29	.01	100	N	N
Oil Extraction <sup>(b)</sup> Process	Mineral Oil Scrubber/ Cold Water Condenser	Y	662.10	18.2	100	Y	N

<sup>(a)</sup> Emission units evaluated for CAM applicability for PM/PM<sub>10</sub>.

<sup>(b)</sup> Emission units evaluated for CAM applicability for VOC.

- (1) Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the Bean Cleaner, Esher Wyss Dryer, Cracking Separator and Conditioner, Flaker, Meal Grinder and Sifter and Meal Loadout for PM/ PM<sub>10</sub> and the Oil Extraction Process for VOC. A CAM plan was submitted September 16, 2008 and the CAM plan will be incorporated into this Part 70 Renewal.
- (2) A detailed evaluation for CAM applicability for PM/PM<sub>10</sub> was not conducted for the insignificant activities. Since the uncontrolled emissions (based on actual process emissions) are less than one hundred (100) tons per year, the requirements of CAM do not apply to the insignificant activities for PM/PM<sub>10</sub>.
- (3) The Oil Extraction Process was not evaluated for CAM applicability for the Hazardous Air Pollutant n-Hexane because this pollutant is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs): Solvent Extraction for Vegetable Oil Production, 40 CFR 63.2830 through 63.2872.

**NSPS**

- (b) This source is subject to the requirements of 326 IAC 12 and 40 CFR Part 60, Subpart DD (New Source Performance Standards (NSPS) for Grain Elevators), 40 CFR 60.300 through 60.304. Pursuant to 40 CFR 60.300, the standard applies to affected facilities at a grain storage elevator constructed, modified or reconstructed after August 3, 1978 that have a permanent grain storage capacity of one million bushels or more.

Pursuant to 40 CFR 60.300(a), affected facilities for the purpose of this standard are each truck unloading station, truck loading station, railcar loading station, railcar unloading station and all grain handling operations. This rule is not applicable to the affected truck unloading station and rail unloading station when handling the stockpiled soybean meal. This rule is only applicable to these operations when handling soybeans.

The meal surge tanks (EU31) and hull surge tank (EU32), both constructed in 1986, are not subject to this rule because they are only for storage of meal and hulls, the finished product, and are not used as surge bins in grain handling operations. In addition, the two (2) column grain dryers (EU08) are not subject to this rule, per 40 CFR Part 60.302(a) because each grain dryer does not have a column plate perforation exceeding 0.094 inches.

The affected facilities are subject to the following sections of 326 IAC 12 and 40 CFR Part 60, Subpart DD:

40 CFR 60.300  
40 CFR 60.301  
40 CFR 60.302 (b)(1), (b)(2), and (c)(2)  
40 CFR 60.303  
40 CFR 60.304

The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated as 326 IAC 12-1, apply to the affected facilities described in 40 CFR 60.300 except when otherwise specified in 40 CFR Part 60, Subpart DD.

- (c) Boiler #1 (EU39), constructed in 1960, is not subject to the requirements of 326 IAC 12 and 40 CFR Part 60, Subparts D, Da, Db, and Dc (NSPS for Small Industrial-Commercial-Institutional Steam Generating Units), because it was constructed prior to the earliest rule applicability date of August 17, 1971.
- (d) Boiler #3 (EU41), constructed in 1992 and the Refinery Boiler (EU42), constructed in 2000, are subject to the requirements of 326 IAC 12 and 40 CFR 60, Subpart Dc (NSPS for Small Industrial-Commercial-Institutional Steam Generating Units), 40 CFR 60.40c through 60.48c, because each boiler was constructed after June 9, 1989 and have maximum heat input capacities between ten (10) and one hundred (100) MMBtu per hour. Therefore, this unit is considered an affected facility for the purposes of the standard. Pursuant to 40 CFR 60.42c(d):
  - (1) The SO<sub>2</sub> emissions from each boiler shall not exceed five tenths (0.5) pounds per MMBtu of heat input when burning No. 2 distillate fuel oil; or,
  - (2) The sulfur content of the fuel oil shall not exceed five-tenths percent (0.5%) by weight.

Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown and malfunction.

There are no requirements in 40 CFR 60 Subpart Dc specifically related to vegetable oil combustion. Pure vegetable oil does not conform to the definition of oil under 40 CFR 60.41c because it is not petroleum based. Therefore, the fuel oil limits apply only to burning distillate fuel or blends of vegetable oil and distillate fuel oil.

- (e) Boiler #4 (EU46) is subject to the requirements of 326 IAC 12 and 40 CFR Part 60, Subpart Db (NSPS for Industrial-Commercial-Institutional Steam Generating Units), 40 CFR 60.40b through 60.49b, because it has a heat input capacity greater than 100 MMBtu/hr and was constructed after June 19, 1984. Therefore, this unit is considered an affected facility for the purposes of the standard.

The affected facility (EU46) is subject to the following sections of 326 IAC 12 and 40 CFR Part 60, Subpart Db:

40 CFR 60.40b (a)  
40 CFR 60.41b  
40 CFR 60.42b (a), (e), (g) and (j)  
40 CFR 60.43b (f) and (g)  
40 CFR 60.44b (a)(1)(ii), (b), (c), (e), (f), (h) and (i)  
40 CFR 60.45b (b), (j) and (k)  
40 CFR 60.46b (a), (c), (d)(7), and (e)  
40 CFR 60.47b (f)  
40 CFR 60.48b (a) through (g), (i), (j)(2), (j)(4) and (j)(5)  
40 CFR 60.49b (b), (c), (d), (f) through (j), (o) and (r)

The provisions of 40 CFR Part 60, Subpart A (General Provisions), which are incorporated as 326 IAC 12-1, apply to the affected facility described in 40 CFR 60.40b except when otherwise specified in 40 CFR Part 60, Subpart Db.

### **NESHAPS**

- (f) This source is subject to the requirements of 326 IAC 20 and 40 CFR Part 63, Subpart GGGG (National Emission Standards for Hazardous Air Pollutants (NESHAPs): Solvent Extraction for Vegetable Oil Production), 40 CFR 63.2830 through 63.2872, because it is a vegetable oil production process located at a major source of HAPS emissions and constructed before May 26, 2000 and no reconstruction has occurred.

The affected facilities are subject to the following sections of 326 IAC 20 and 40 CFR Part 63, Subpart GGGG:

40 CFR 63.2832 (a)  
40 CFR 63.2833  
40 CFR 63.2834 (a)  
40 CFR 63.2840 (a), (b)(1) through (b)(5), and (e) through (f)  
40 CFR 63.2850 (a), (b), (d) (e)(1)(i), (e)(1)(iii) and (e)(2)  
40 CFR 63.2851  
40 CFR 63.2852  
40 CFR 63.2853  
40 CFR 63.2854  
40 CFR 63.2855  
40 CFR 63.2860 (a), (c) and (d)  
40 CFR 63.2861  
40 CFR 63.2862  
40 CFR 63.2863  
40 CFR 63.2870  
40 CFR 63.2871  
40 CFR 63.2872

Table 1 of 63.2833  
Item (a) of Table 1 of 63.2834  
Item (ix) of Table 1 of 63.2840  
Table 1 of 63.2850  
Items (a) and (c) of Table 2 of 63.2850  
Table 1 of 63.2853  
Table 1 of 63.2870

The provisions of 40 CFR Part 63, Subpart A (General Provisions), which are incorporated as 326 IAC 20-1, apply to the affected source except when otherwise specified in 40 CFR Part 63, Subpart GGGG.

## State Rule Applicability - Entire Source

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

The source is subject to the requirements of 326 IAC 1-6-3.

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

This source is considered a major source under PSD. The following determinations regarding PSD applicability have been made as part of prior permitting actions.

#### Part 70 Operating Permit No. 023-6066-00011

The source was issued a Part 70 Operating permit on July 23, 2004. Upon issuance of the Part 70 Operating Permit, the source was considered a major source under PSD.

- The source was constructed prior to August 7, 1977 and no significant modifications were made to render the requirements of PSD applicable, until the hexane solvent oil extraction process (EU38) was constructed in 1985. The installation of this process was subject to the requirements of this rule because VOC emissions were greater than the PSD significant threshold level of forty (40) tons per year. However, the PSD requirements for this process were not addressed because it was constructed and operated without the proper approvals.
- A civil action suit was filed against Archer Daniel Midland Company with the United States District Court for the Central District of Illinois. As a result of Civil Action No. 03-2066, *United States v. Archer Daniel Midland Company*, a proposed consent decree was issued on April 9, 2003 to address claims for violations of PSD and NSPS requirements of the Clean Air Act (CAA). The requirements outlined in the consent decree were incorporated into the Part 70 Operating Permit No. 023-6066-00011 through Significant Source Modification No. 023-18664-00011, issued May 24, 2004.

The following determinations regarding PSD applicability have been made since Part 70 Operating Permit No. 023-6066-00011, was issued:

#### SSM 023-21838-00011 and SPM 023-21909-00011

Significant Source Modification No. 023-21838-00011 (issued December 22, 2008) and Significant Permit Modification No. 023-21909-00011 (issued January 19, 2006) authorized the use of vegetable oil or blends of vegetable oil and distillate fuel oil, as fuel in boiler #1 and boiler #3.

In order to render the requirements PSD not applicable, the usage of vegetable oil in boiler #1 and boiler #3 shall not exceed a total of 4.10 million gallons per twelve (12) consecutive month period, with compliance determined at the end of each month. When using blends of vegetable oil and distillate fuel oil, only the volume of fuel which is vegetable oil shall count toward the usage limit. For boiler #1 and boiler #3, when burning vegetable oil or blends of vegetable oil and distillate fuel oil, PM<sub>10</sub> emissions shall not exceed 0.07 pounds per million Btu heat input. These conditions limit increases in PM<sub>10</sub> emissions due to vegetable oil combustion to less than 15 tons per year and render the requirements of 326 IAC 2-2 not applicable.

#### PSD SSM 023-24843-00011 and SPM 023-25870-00011

Significant Source Modification No. 023-24843-00011 (issued March 19, 2008) and Significant Permit Modification No. 023-25870-00011 (issued May 7, 2008) authorized an expansion to the source that increased the soybean processing capacity (on an annual average basis) from 80,000 to 120,000 bushels per day. The Permittee went through PSD BACT in Significant Source Modification No. 023-24843-00011 for VOC only. Minor limits were established for PM/PM10 as noted below.

#### (a) Particulate Matter Emissions Limits

In order to render the requirements of 326 IAC 2-2 not applicable to this modification with respect to PM and PM<sub>10</sub>, the following limits were added to the Part 70 permit:

Pursuant to PSD SSM 023-24843-00011, the PM and PM<sub>10</sub> emissions from the following units are limited as follows:

Unit (ID) *	PM Limit	PM10 Limit	Units for Limit
Vertical Seed Conditioner (EU44)	0.001	0.001	lb/ton beans processed
DTDC Meal Dryer Deck #1 and Deck #2 (EU23 and EU24)	0.00647	0.00647	
DTDC Meal Dryer Deck #3 (EU24A)	0.0063	0.0063	
DTDC Meal Cooler Deck (EU25)	0.0018	0.0018	lb/ton grain received
Grain Conveying (EU04)	0.061	0.034	
Bean Dryer, Cracking Rolls, Hull Separator and Conditioner (EU10/11/12/13)	0.00161	0.00161	lb/ton beans processed
Bean Dryer, Cracking Rolls, Hull Separator and Conditioner (EU10/11/12/13) (baghouse BH-06A bypassed)	0.131	0.085	
Conveying to Processing (EU07)	0.061	0.034	lb/ton grain received
Grain Cleaner (EU09)	0.00102	0.00102	lb/ton beans processed
Hull Screening (EU16)	0.00674	0.00674	lb/ton hulls processed
Hull Grinder (EU17)	0.00674	0.00674	
Hull Conveyor (EU19)	0.061	0.034	lb/ton beans processed
Flaking Operation (EU14)	0.050	0.032	
Meal Conveyor (EU26)	0.061	0.034	lb/ton meal produced
Meal Grinder and Sifter (EU27/28)	0.00347	0.00347	lb/ton beans processed
Meal Storage Conveyor (EU29)	0.061	0.034	lb/ton meal produced
Meal Surge Tanks (EU31)	0.025	0.0063	
Truck and Rail Receiving (EU01/02)	0.035	0.0078	lb/ton grain received
Elevator Leg vents (EU03)	0.061	0.034	
Grain Storage (EU05)	0.025	0.0063	
Hull Storage Unit (EU18)	0.025	0.0063	lb/ton hulls processed
Pellet Storage Unit (EU22)	0.025	0.0063	
Pellet Mill and Cooler (EU20/21)	0.030	0.030	
Meal Storage Unit (EU30)	0.025	0.0063	lb/ton meal produced
Truck Meal, Hull and Hull Pellet Loadout (EU34)	0.061	0.034	
Rail Meal, Hull and Hull Pellet Loadout (EU35)	0.27	0.1755	lb/ton beans processed
Hull Surge Tank (EU32)	0.025	0.0063	lb/ton hulls processed
Meal Clay Storage Unit (EU36)	0.571	0.40	lb/ton clay received
Boiler #1 (EU39)	0.070	0.070	lb/MMBtu heat input
Boiler #3 (EU41)	0.070	0.070	
Silica Clay Silo (EU47)	0.571	0.40	lb/ton clay received
Boiler #4 (EU46)	0.070	0.070	lb/MMBtu heat input
Cooling Tower (EU45)	0.030	0.030	lb/hr

\* Stack IDs are provided in Appendix A.

Compliance with these limits will render the requirements of 326 IAC 2-2 not applicable with respect to PM and PM<sub>10</sub> to the modification described in PSD SSM 023-24843-00011.

(b) NOx Emission Limit

The NOx PTE of Boiler #4 (EU46) for this modification was greater than the PSD significance threshold of forty (40) tons per year. As a result, the following limit was added to the permit:

Pursuant to PSD SSM 023-24843-00011, the NOx emissions from EU46 shall not exceed 37.0 tons per twelve consecutive month period with compliance determined at the end of each month. The Permittee elected to demonstrate compliance using NOx CEMS.

(c) VOC Emissions Limits

As a result of the increase in production capacity for soybean processing (on an annual average basis) from 80,000 to 120,000 bushels per day, the production capacity of the oil extraction process increased, as well. The emissions increase of this modification exceeded the PSD significant threshold level in 326 IAC 2-2-1 for VOC. Therefore, VOC emissions were reviewed pursuant to 326 IAC 2-2 to ensure compliance with the National Ambient Air Quality Standards for ozone and the requirements of Best Available Control Technology (BACT) established to minimize VOC emissions.

Pursuant to 326 IAC 2-2-3 (PSD - BACT) and PSD SSM 023-24843-00011:

- (a) VOC emissions from the solvent extraction and recovery process main vent shall be controlled by a condenser and mineral oil absorber/scrubber system (CE-22).
- (b) The overall solvent loss ratio of the solvent extraction process shall not exceed 0.179 gallons of hexane per ton of soybeans processed. Compliance with the solvent loss ratio limit shall be demonstrated using the procedures established in 40 CFR Part 63, Subpart GGGG.
- (c) The amount of soybeans processed by the source shall not exceed 1,314,000 tons twelve (12) consecutive month period with compliance determined at the end of each month.

SSM 023-26411-00011 and SPM 023-26542-00011

Significant Source Modification No. 023-26411-00011 (issued May 30, 2008) and Significant Permit Modification No. 023-26542-00011 (issued August 13, 2008) authorized the stockpiling of soybean meal in railcars during plant shutdowns at a limited throughput of 100,000 tons/year utilizing existing grain receiving/unloading pits EU01 and EU02, elevator leg EU03, conveyor EU28A, storage tanks EU30, surge tanks EU31, mixing conveyor EU33 and rail and truck meal loadout EU34 and EU35.

The source requested that the soybean meal stockpiled into the railcars be limited to 100,000 tons/yr and counted toward the sourcewide soybean meal production limit of 1,143,180 tons per twelve consecutive month period, made federally enforceable in SSM No. 023-26542-00011. Compliance with this limit will render the requirements of 326 IAC 2-2 not applicable to this modification.

**326 IAC 2-3 (Emission Offset)**

This source is not subject to the requirements of 326 IAC 2-3 because it is located in Clinton County which is designated as attainment for all criteria pollutants.

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

The oil extraction process (EU38) and DTDC (EU23, EU24, EU24A and EU25) were reconstructed after July 27, 1997 and each has a HAP PTE greater than 326 IAC 2-4.1 major source levels. However, the oil extraction process (EU38) and DTDC (EU23, EU24, EU24A and EU25) belong to a source category specifically regulated by Section 112(d) of the Clean Air Act (40 CFR Part 63, Subpart GGGG). Therefore, pursuant to 326 IAC 2-4.1-1(b)(2), these operations are not subject to the requirements of 326 IAC 2-4.1.

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

Since this source is required to have an operating permit under 326 IAC 2-7 (Part 70 Permit Program), it is subject to 326 IAC 2-6 (Emission Reporting). The source also has the potential to emit greater than two hundred fifty (250) tons per year of VOC; therefore, an emission statement covering the previous calendar year must be submitted by July 1, annually. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

### **326 IAC 4-1 (Open Burning)**

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.

### **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 Exemptions), opacity shall meet the following, unless otherwise stated in the permit:

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

## **State Rule Applicability – Individual Facilities**

### **326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating; Emission Limitations for Facilities Specified in 326 IAC 6-2-1(c))**

Particulate matter emissions from the boiler identified as EU39, an indirect heating facility constructed before June 8, 1972, shall be limited by the following equation:

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

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

C = Maximum ground level concentration with respect to distance from the point source at the "critical" wind speed for level terrain. This shall equal 50 micrograms per cubic meter for a period not to exceed a sixty (60) minute time period.

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.

N = Number of stacks in fuel burning operation = 1

a = Plume rise factor which is used to make allowance for less than theoretical plume rise. The value 0.67 shall be used for Q less than or equal to 1,000 MMBtu/hr heat input. The value 0.8 shall be used for Q greater than 1,000 MMBtu/hr heat input.

h = Stack height in feet = 39 ft.

Therefore, the allowable particulate matter emissions from the boiler identified as EU39, which was constructed in 1960, shall not exceed 0.77 lb/MMBtu heat input. Potential particulate matter emissions from the boiler EU39 are less than this limit, therefore, the boiler is in compliance.

**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))**

Particulate matter emissions from the boilers identified as EU41, EU42, and EU46 indirect heating facilities constructed after June 8, 1972, shall each be limited by 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 heat input.

Based on the above equation, particulate matter emissions from boiler EU41 and EU42, constructed in 1992 and 2000, respectively, shall be limited to 0.28 pounds per million Btu heat input for each boiler. Potential particulate matter emissions from boiler EU41 and EU42 are less than this limit, therefore, each boiler is in compliance with this rule.

Particulate matter emissions from boiler EU46, approved for construction in 2008, shall be limited to 0.26 pounds per million Btu heat input. Potential particulate matter emissions from boiler EU46 are less than this limit, therefore, the boiler is in compliance.

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

Pursuant to this rule, the particulate from the emission units listed below shall be limited as shown in the tables below based on the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

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

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

or

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

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

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

- (a) Pursuant to 326 IAC 6-3-2, the particulate emissions from the emission units listed below, during normal operation, shall be limited as follows:

<b>Emission Unit ID</b>	<b>Process Weight Rate (ton/hr)</b>	<b>Allowable Particulate Emissions (lb/hr)</b>
Rail Unloading, EU01	400	66.3
Truck Unloading, EU02	720	73.4
Grain elevator, EU03	720	73.4
Conveyor to grain storage, EU04	1,200	80.0
Concrete silo top vents, EU05	720	73.4
Steel storage tank vents, EU06	720	73.4
Conveyor from grain storage, EU07	225	59.8
Grain Dryer, EU08	180	57.4
Grain Cleaner, EU09	180	57.4
Bean Dryer, EU10	122	53.3
Cracking Rolls, EU11	180	57.4
Hull Separator, EU12	180	57.4
Conditioner, EU13	180	57.4
Flaking, EU14	172	56.9
Hull Screen, EU16	14	24.0
Hull Grinder, EU17	14	24.0
Hull Storage Unit, EU18	14	24.0
Hull Conveyor, EU19	14	24.0
Pellet Mill, EU20	14	24.0
Pellet Cooler, EU21	14	24.0
Pellet Storage Unit, EU22	14	24.0
Dryer Deck #1, EU23	172	55.1
Dryer Deck #2, EU24	172	55.1
Dryer Deck #3, EU24A	172	55.1
Cooler Deck, EU25	172	55.1
Meal Conveyor, EU26	136	54.4
Meal sifter, EU27	136	54.4
Meal grinder, EU28	136	54.4
Meal storage conveyor, EU29	136	54.4

<b>Emission Unit ID</b>	<b>Process Weight Rate (ton/hr)</b>	<b>Allowable Particulate Emissions (lb/hr)</b>
Meal storage tank, EU30	136	54.4
Meal surge tanks, EU31	300	63.0
Hull surge tank, EU32	100	51.3
Mixing conveyor, EU33	250	61.0
Truck Meal & Hull Pellet loadout, EU34	250	61.0
Rail Meal & Hull Pellet loadout, EU35	250	61.0
Meal clay storage, EU36	25	35.4
Refinery clay storage, EU37	25	35.4
Bean cleaner, EU43	180	57.4
Vertical Seed Conditioner, EU44	180	57.4

- (1) For purposes of demonstrating compliance with the particulate emission limits for Dryer Deck # 1 and Dryer Deck #2, identified as, EU23 and EU24, respectively, exhausting through cyclones CE09 and CE10 which exhaust through EP08A, the allowable particulate emission rate from cyclone CE09 and CE10 shall be limited to 110.2 pounds per hour.
- (2) For purposes of demonstrating compliance with the particulate emission limits for the conveyor to meal screens (EU26), the meal sifter (EU27), the meal grinder (EU28) and the meal storage conveyor (EU29), all exhausting through baghouse BH-2, which exhausts through stack EP11, the allowable particulate emission rate from baghouse BH-2 shall be limited to 217.6 pounds per hour.
- (3) For purposes of demonstrating compliance with the particulate emission limits for the meal storage unit (two tanks) (EU30) exhausting through two (2) bin vent filters BH-30A and BH-30B, one on each tank, which exhausts through stacks EP30A and EP30B, respectively; the allowable particulate emission rate from bin vent filters BH-30A and BH-30B, shall be limited to 54.4 pounds per hour for the two bin vent filters combined.
- (4) For purposes of demonstrating compliance with the particulate emission limits for the meal surge tank (EU31) and the hull surge tank (EU32), both exhausting through bin vent filter BH-31, which exhausts through stack EP31, the allowable particulate emission rate from bin vent filter BH-31 shall be limited to 114.3 pounds per hour.
- (5) For purposes of demonstrating compliance with the particulate emission limits for the truck meal & hull pellet loadout (EU34) and the rail meal & hull pellet loadout (EU35) exhausting through baghouse ML-1, which exhaust through stack EP12 the allowable particulate emission rate from baghouse ML-1 shall be limited to 122 pounds per hour.

- (b) Pursuant to 326 IAC 6-3-2, the particulate emissions from the following processes, when soybean meal is stockpiled in railcars during the plant's shutdowns, shall be limited as follows:

<b>Emission Unit ID</b>	<b>Process Weight Rate (ton/hr)</b>	<b>Allowable Particulate Emissions (lb/hr)</b>
Rail/Truck Receiving (EU01 and EU02)	400	66.3
Grain/Meal Elevator (EU03)	720	73.4
Conveyor to Meal Storage Tanks (EU28A)	136	54.4
Meal Storage Tanks (EU30)	136	54.4
Meal Surge Tanks (EU31)	300	63.0
Rail/Truck Meal Loadout (EU34 and EU35)	250	61.0

**326 IAC 6-4 (Fugitive Dust Emissions)**

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).

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

The sulfur dioxide emissions from each of the four (4) boilers (EU39, EU41, EU42 and EU46) burning distillate oil shall be limited to 0.5 lb/MMBtu heat input. This equates to a fuel oil sulfur content limit of 0.5%. Therefore, the sulfur content of the fuel must be less than or equal to 0.5% in order to comply with this rule. The source will comply with this rule by using No. 2 distillate oil with a sulfur content of 0.5% or less.

**326 IAC 8-1-6 (Volatile Organic Compounds – BACT)**

The hexane solvent oil extraction process is subject to the requirements of this rule since it was constructed after January 1, 1980 and has potential VOC emissions greater than twenty-five (25) tons per year. However, this emission unit is subject to the terms of the consent decree in *United States v. Archer Daniels Midland Company*, Civil Action No. 03-2066, which requires installation of state-of-the-art air pollution controls. Pursuant to the consent decree, a dedicated "extractor condenser" will be located between the extractor and the vent condenser. Its function is to reduce the vapor loading to the vent condenser. Also, a once-through cold water condenser will be located between the vent condenser and the mineral oil absorber/scrubber. Since the requirements of the consent decree are intended to satisfy BACT requirements under 326 IAC 2-2 (PSD), these requirements will also satisfy the requirements of 326 IAC 8-1-6 (BACT).

**326 IAC 8-3-2 (VOC Rules: Cold Cleaner Operations)**

The degreasing operation, identified as U1, was constructed after January 1 1980; therefore, 326 IAC 8-3-2 is applicable.

Pursuant to 326 IAC 8-3-2, the owner or operator of the cold cleaner operation shall:

- (a) Equip the cleaner with a cover.
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**326 IAC 8-3-5 (VOC Rules: Cold Cleaner Degreaser Operation and Control)**

The degreasing operation was constructed after July 1, 1990 and are cold cleaners without remote solvent reservoirs; therefore 326 IAC 8-3-5 applies.

- (a) Pursuant to 326 IAC 8-3-5(a), the cold cleaner degreaser operation shall comply with the following control equipment requirements.
  - (1) Equip the degreasers with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
    - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38° C) (one hundred degrees Fahrenheit (100° F));
    - (B) The solvent is agitated; or
    - (C) The solvent is heated.
  - (2) Equip the degreasers with a emission unit for draining cleaned articles. If the solvent volatility is greater than four and three tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100° F)) then the drainage emissions unit must be limited to such that tartivles are enclose un der the cover while draining. The drainage emissions unit may be external for applications where a internal type cannot fit into the cleaning system.
  - (3) Provide a permanent, conspicuous label which lists the opeating requirements outlined in subsection (b).
  - (4) The solvent spray, if used, must be solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
  - (5) Equip the degreasers with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100° F)) or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred and twenty degrees Fahrenheit (120° F)):
    - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
    - (B) A water cover when solvent is used is insoluable in, and heavier than water.
    - (C) Other systems of demostrated equivalent controls such as a refrigerated chiller pf carbon adsorption. Such systems shall ensure that the following operating requirements are met:

- (b) Pursuant to 326 IAC 8-3-5(b), the owner or operator of a cold cleaning degreaser operation shall ensure that the following operating requirements are met:
  - (1) Close the cover whenever articles are not being handled in the degreasers.
  - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
  - (3) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, such that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

**326 IAC 8-6 (Organic Solvent Emission Limitations)**

This source commenced operation before October 7, 1974. Therefore, pursuant to 326 IAC 8-6-1, the source is not subject to the requirements of 326 IAC 8-6.

**Compliance Determination and Monitoring Requirements**

Permits issued under 326 IAC 2-7 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 2-7-5. 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 monitoring requirements applicable to this source are as follows

- (a) Grain Receiving, Grain Cleaner/Hull Grinder, Grain Dryer, Esher Wyss and Cracking, Dehulling and Flaking, Pellet Cooler, DTDC, Meal Grind/Sift/Storage, Meal Loadout and Meal Clay Storage Facilities
  - (1) Testing Requirements  
The Permittee shall perform PM and PM<sub>10</sub> testing of the stack exhaust from all units (except for EU04, EU07, EU19, EU26, EU29, EU36, EU45 and EU47) limited by Condition D.1.2 to demonstrate compliance with Condition D.1.2, within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), signed on May 25, 2008 or at least once every five (5) years from the date of valid compliance demonstration, whichever date is later. These tests shall be conducted utilizing methods approved by the Commissioner in accordance with Section C - Performance Testing. PM<sub>10</sub> includes filterable and condensable PM.
  - (2) Particulate Control
    - (a) In order to comply with Conditions D.1.2 and D.1.3, baghouses BH-06A, CE-05, ML-1, MC-1, BH-2A, CE-20A, CE-21 BH-30A and BH-30B and cyclones CE-06, CE-07, CE-09, CE-10 (CE-09 and CE-10 exhaust through a common stack), CE-10A, CE-11, CE-18, CE-19, CE-19A, CE-19B, CE-20 and CE-44 for particulate control shall be in operation and

- control emissions from the associated units at all times that the associated units are in operation unless specified otherwise in Condition D.1.2.
- (b) In order to comply with Condition D.1.3, baghouse GR-1 for particulate control shall be in operation and control emissions from EU01, EU02, EU03 and EU04 at all times at least one of the respective units are 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) In order to comply with Condition D.1.3, cyclone CE-08 for particulate control shall be in operation and control emissions from the pellet mill (EU20) and the pellet cooler (EU21) at all times that the pellet mill (EU20) and the pellet cooler (EU21) are in operation. This source accepted this requirement on a voluntary basis.
- (3) Visible Emissions Notations
- (a) Visible emission notations of the stack exhausts from baghouses GR-1, BH-06A, CE-05, BH-2A, ML-1, MC-1, RCB, CE-20A, CE-21, BH-30A, BH-30B and BH-31 and the stack exhausts for cyclones CE-06, CE-07, CE-08, CE-09, CE-10, CE-10A, CE-11 and CE-44 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
  - (b) Visible emission notations of the stack exhaust from cyclone CE-06 shall be performed once per day during normal operations, while bypassing BH-06A, if the emissions from EU10, EU11, EU12 and EU13 bypassed baghouse BH-06A at any time during that day.
  - (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
  - (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
  - (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
  - (f) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

- (4) Broken or Failed Bag Detection
- (a) For single compartment baghouses, failed units and the associated process shall be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) Bag failure may be indicated by a significant drop in the baghouse's pressure readings with abnormal visible emissions, by an opacity violation, or by other means, such as gas temperatures, flow rates, air infiltration, leaks, dust traces or triboflows.

- (5) Cyclone Failure Detection  
In the event that cyclone failure has been observed:

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

These monitoring conditions are necessary to ensure that the baghouses and cyclones are working properly to demonstrate compliance with 326 IAC 2-2 (PSD), 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), and 326 IAC 2-7 (Part 70). These monitoring conditions shall also satisfy the requirements of 40 CFR 64, CAM.

(b) Oil Extraction Process

- (1) VOC Control  
Pursuant to 326 IAC 2-2-3, and in order to comply with Conditions D.1.1(b) and D.1.4, the condenser and mineral oil absorber/scrubber system (CE-22) shall be operated at all times that the hexane solvent oil extraction process (EU38) is in operation.
- (2) Parametric Monitoring
- (a) The Permittee shall record the following for the scrubber (CE-22) used in conjunction with the oil extraction process, identified as EU38, at least once per day when the oil extraction process is in operation:
- (1) the total pressure drop across the scrubber;
  - (2) the inlet gas temperature of the scrubber;
  - (3) the outlet gas flow rate of the scrubber; and
  - (4) the mineral oil flow rate in the scrubber.
- (b) When for any one reading:
- (1) the pressure drop across the scrubber is outside the normal range of 0.2 and 10.0 inches of water or a range established during the latest stack test;
  - (2) the inlet gas temperature is outside the normal range of 45 and 100 degrees F or a range established during the latest stack test;
  - (3) the outlet gas flow rate is outside the normal range of 50 and 250

cubic feet per minute (cfm) or a range established during the latest stack test; or

- (4) the mineral oil flow rate is outside the normal range of 10.0 and 75.0 gallons per minute (gpm) or a range established during the latest stack test;

the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading, inlet gas temperature, outlet gas flow rate, or a mineral oil flow rate that is outside the above mentioned ranges, is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

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

These monitoring conditions are necessary to ensure that the condenser and mineral oil absorber/scrubber system is working properly to demonstrate compliance with 326 IAC 2-2 (PSD), 326 IAC 2-2-3 (Best Available Control Technology (BACT) for Volatile Organic Compounds (VOC)), the Consent Decree in United States v. Archer Daniels Midland Company, Civil Action No. 03-2066 and 326 IAC 2-7 (Part 70).

- (c) Boiler #1, Boiler #3, the Refinery Boiler and Boiler #4

- (1) Testing Requirements

The Permittee shall perform PM and PM<sub>10</sub> testing on EU39, EU41, or EU46 to demonstrate compliance with Condition D.2.1 and D.2.6(b) within 180 days of publication of the new or revised condensable PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM<sub>2.5</sub>), signed on May 25, 2008. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. The boiler tested shall not be a boiler tested in the previous six (6) years. This testing shall be conducted utilizing methods as approved by the Commissioner in accordance with Section C - Performance Testing. PM<sub>10</sub> includes filterable and condensable PM.

- (2) Visible Emissions Notations

- (a) Visible emission notations of the stack exhausts from EU39, EU41, EU42 and EU46 shall be performed once per day, when combusting fuel oil and/or vegetable oil, 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 in accordance with Section C- Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

(3) Sulfur Dioxide (SO<sub>2</sub>)

Compliance with Condition D.2.4 and D.2.3 shall be determined using the following:

- (a) Pursuant to 326 IAC 3-7-4 (Sulfur Dioxide Emissions and Sulfur Content), the Permittee shall demonstrate the fuel oil sulfur content does not exceed 0.5% by weight by:
  - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
  - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
    - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
    - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

Compliance may also be determined by conducting a stack test for sulfur dioxide emissions using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

(4) Continuous Emissions Monitoring

- (a) Continuous emission monitoring systems (CEMS) for EU46 shall be installed, calibrated, maintained, and operated for measuring NO<sub>x</sub> and O<sub>2</sub> which meet all applicable performance specifications of 326 IAC 3-5-2.
- (b) The continuous emission monitoring systems must meet the certification requirements pursuant to 326 IAC 3-5-3.
- (c) If revisions are made to the continuous monitoring standard operating procedures (SOP), the Permittee shall submit updates to the department biennially.
- (d) Relative accuracy tests and routine quarterly audits shall be performed in accordance with the contents of the standard operating procedures (SOP) pursuant to 326 IAC 3-5-5.
- (e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emission monitoring system pursuant to 40 CFR Part 60.

(5) NO<sub>x</sub> Monitoring System Downtime

Whenever the NO<sub>x</sub> continuous emission monitoring system is malfunctioning or down for repairs or adjustments, the following method shall be used to provide information related to NO<sub>x</sub> emissions:

- (a) The Permittee shall record the natural gas flow rate at least four (4) times per hour until the primary CEM or a backup CEM is brought online and functioning properly. When for any one reading, the natural gas flow rate is outside the normal range during downtime of the NOx CEMS, the Permittee shall take reasonable response steps in accordance with Section C – Response to Excursions or Exceedances.
- (b) The instrument used for determining the natural gas flow rate shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.

These monitoring conditions are necessary to ensure compliance with 326 IAC 2-2 (PSD), 326 IAC 2-2-3 (Best Available Control Technology (BACT) for Volatile Organic Compounds (VOC)), 326 IAC 2-7 (Part 70), 326 IAC 6-2-3 (Particulate Emission Limitations for Sources of Indirect Heating; Emission Limitations for Facilities Specified in 326 IAC 6-2-1(c)), 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)) and 326 IAC 7-1.1 (Sulfur Dioxide Emissions Limitations).

### **Recommendation**

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on September 16, 2008. Additional information related to the application was received on January 22, 2009. On March 5, 2009, a second application was received and combined into the initial application on April 20, 2009.

### **Conclusion**

The operation of this soybean processing and oil refining operation shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 023-26991-00011.

**Appendix A: Emissions Calculations****Summary**

**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

<b>Controlled Potential Emissions (tons/year)</b>							
Emissions Generating Activity							
Activity	Soybean Processing Emissions	Combustion Emissions	Hexane Solvent Oil Extraction Process	Cooling Towers Emissions	Fire Pump Engine Emissions	Fugitive Emissions	<b>TOTAL</b>
PM	213.25	88.72	0.00	5.33	0.13	6.16	313.59
PM10	85.49	88.32	0.00	5.33	0.13	1.20	180.47
SO2	0.00	380.40	0.00	0.00	0.12	0.00	380.52
NOx	0.00	229.83	0.00	0.00	1.78	0.00	231.61
VOC	0.00	7.30	662.10	0.00	0.14	0.00	670.05
CO	0.00	132.38	0.00	0.00	0.38	0.00	132.76
total HAPs	0.00	0.35	423.75	0.00	0.00	0.00	424.10
worst case single HAP	0.00	0.29	(Hexane) 423.75	0.00	0.00	0.00	(Hexane) 423.75

\*The potential emissions shown above are after controls.

\*\*Fugitive emissions are from soybean processing and paved road emissions.

\*\*\*VOC emissions from degreasing operations is assumed to be half a ton per year, therefore 0.5 tons per year was added to the VOC total emissions.

**Appendix A: Emission Calculations**  
**PM-PM10 Emissions**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

EP ID(s)	EU ID(s)	CE ID(s)	Description	Maximum Throughput (tpy)	Emission Factors			Emission Factor Basis / Source	Controls	Control Efficiency (%)		Capture Efficiency (%)	Potential Emissions (tpy)		Methodology	Comments
					PM	PM10	Units			PM	PM10		PM	PM10		
EP01	EU01	GR-1	Rail - Point Source	0	0.0320	0.0078	lb/ton of grain rec'd via rail	AP-42; Table 9.9.1-1; Railcar; 3/2003.	Uncontrolled factor	99.0%	99.0%	90%	0.000	0.000	a	Worst-case PM emissions are from 100% truck receiving.
EP01F	EU01	Fugitive	Rail (Fugitive)	0	0.0320	0.0078	lb/ton of grain rec'd via rail	AP-42; Table 9.9.1-1; Railcar; 3/2003.	Uncontrolled factor	0.0%	0.0%	90%	0.000	0.000	b	Worst-case PM emissions are from 100% truck receiving.
EP01	EU02	GR-1	Truck - Point Source	1,444,500	0.0350	0.0078	lb/ton of grain rec'd via truck	AP-42; Table 9.9.1-1; Hopper trucks; 3/2003.	Uncontrolled factor	99.0%	99.0%	90%	0.228	0.051	a	Worst-case PM emissions are from 100% truck receiving.
EP02F	EU02	Fugitive	Truck (fugitive)	1,444,500	0.0350	0.0078	lb/ton of grain rec'd via truck	AP-42; Table 9.9.1-1; Hopper trucks; 3/2003.	Uncontrolled factor	0.0%	0.0%	90%	2.528	0.563	b	Worst-case PM emissions are from 100% truck receiving.
EP01	EU03	GR-1	Elevator Leg Vents	1,444,500	0.0610	0.0340	lb/ton of grain rec'd	AP-42; Table 9.9.1-1; Grain handling; 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.225	0.125	a	Total beans received (crush + storage capacity = max rate).
EP01	EU04	GR-1	Grain Conveying to Storage	1,444,500	0.0610	0.0340	lb/ton of grain rec'd	AP-42; Table 9.9.1-1; Grain handling; 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.225	0.125	a	Total beans received (crush + storage capacity = max rate).
EP01	EU05	GR-1	Grain Storage Bins (Concrete)	1,444,500	0.0250	0.0063	lb/ton of grain rec'd	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.092	0.023	a	Total beans received (crush + storage capacity = max rate).
EP02	EU06	N/A	Grain Storage (2 Steel Storage Tanks)	120,000	0.0250	0.0063	lb/ton of grain to bin	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	0%	0%	100%	1.500	0.378	a	conditions. Tanks hold 1,000,000 bushels each or 30,000 tons each. Throughput is based on filling the tanks two times.
EP03	EU07	CE-18 & CE-05	Grain Conveyor from Storage	1,314,000	0.0610	0.0340	lb/ton of crush	AP-42; Table 9.9.1-1; Grain handling; 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.204	0.114	a	Thruput = total beans processed (Crush Rate).
N/A	EU08	N/A	Grain Dryers (2 units)	1,314,000	0.2200	0.0550	lb/ton of beans dried	AP-42; Table 9.9.1-1 Column Dryer; 3/2003.	Uncontrolled factor	0.00%	0.00%	100%	144.540	36.135	a	Grain drying unrelated to crush; need for drying is based only on properties of raw matl. Worse case would be to dry 100% of crush.
N/A	EU08	N/A	Grain Dryers (Gas Burned)	307 MMCF	7.6000	7.6000	lb/MMSCF	AP-42, Table 1.4-2; 7/98.	Uncontrolled factor	0.00%	0.00%	100%	1.165	1.165	a	based only on properties of raw matl. Worse case would be to dry 100% of crush. Each burner is rated at 17.5 mmbtu/hr.
EP03	EU09	CE-18 & CE-05	Grain Cleaner	1,314,000	0.0010	0.0010	lb/ton of crush	PM/PM10 EF based on stack test from bean cleaner at Frankfort (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	0.668	0.668	c	Thruput = total beans processed (Crush Rate).
EP04	EU10, EU11, EU12 & EU13	CE-06, BH-06A	Esher Wyss Dryer, Cracking, Conditioning & Hull Separator (bypass)	30,000	0.1309	0.0851	lb/ton of beans processed	PM emission factor is based on 95th percentile value from 7/8/05 stack test (see "Stack Test Data" sheet); PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Controlled factor	Included in EF	Included in EF	100%	1.964	1.277	c	Thruput = Hourly Crush Rate*200 hrs of bypass. Emissions from cyclone only control for 200 hr/yr of baghouse bypass.
EP04	EU10, EU11, EU12 & EU13	CE06, BH-06A	Esher Wyss Cracking Conditioning & Hull Separator	1,284,000	0.0016	0.0016	lb/ton of beans processed	PM/PM10 EF based on stack test from similar unit at another facility (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	1.035	1.035	a	Thruput = total beans processed (Crush Rate).
EP05	EU14	CE-07	Flaking Operation	1,314,000	0.0437	0.0320	lb/ton of crush	PM EF (see "Stack Test Data" sheet; 95th percentile value); PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Controlled factor	Included in EF	Included in EF	100%	28.718	21.024	c	Thruput = total beans processed (Crush Rate).
EP03	EU16	CE-19, 19A, 19B & CE-05	Hull Screening	91,980	0.0067	0.0067	lb/ton of hulls processed	PM/PM10 EF based on stack test from hull grinding source at another facility (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	0.310	0.310	c	Thruput = total beans processed (Crush Rate). Control efficiency is for baghouse only. Cyclone efficiency is included in the emission factors.
EP20	EU17	CE-20 & 20A	Hull Grinders (2 units)	91,980	0.0067	0.0067	lb/ton of hulls processed	PM/PM10 EF based on stack test from hull grinding source at another facility (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	0.310	0.310	c	crush x hull factor (see "Constants" tab). Control efficiency is for baghouse only. Cyclone efficiency is included in the emission factors.

**Appendix A: Emission Calculations**  
**PM-PM10 Emissions**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

EP ID(s)	EU ID(s)	CE ID(s)	Description	Potential Throughput (tpy)	Emission Factors			Emission Factor Basis / Source	Controls	Control Efficiency (%)		Capture Efficiency (%)	Potential Emissions (tpy)		Methodology	Comments
					PM	PM10	Units			PM	PM10		PM	PM10		
EP03	EU18	CE-18 & CE-05	Hull Storage	91,980	0.0250	0.0063	lb/ton of hulls processed	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.006	0.001	a	Thruput = total hulls produced; hulls produced = crush x hull factor (see "Constants" tab).
	EU19	N/A	Hull Conveyor	91,980								0.000	0.000		Thruput = total hulls produced. Conveyor is totally enclosed with no emission point, therefore no emissions.	
EP07	EU20 & EU21	CE-08	Pellet Mill & Pellet Cooler	91,980	0.030	0.030	lb/ton of hulls processed	PM/PM10 EF based on stack test from similar unit at another facility (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	1.383	1.383	c	Thruput = total pellets produced; pellets produced = crush x pellet factor (see "Constants" tab).
EP03	EU22	CE-18 & CE-05	Pellet Storage	91,980	0.025	0.0063	lb/ton of hulls processed	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.006	0.001	a	Thruput = total hulls produced; hulls produced = crush x hull factor (see "Constants" tab).
EP08A	EU23	CE-09	Meal Dryer Deck #1	1,314,000	0.00017	#####	lb/ton of crush	PM EF (see "Stack Test Data" sheet; 95th percentile value); PM10 = assumed equal to PM based on other testing.	Controlled factor	Included in EF	Included in EF	100%	0.113	0.113	c	Thruput = total beans processed (Crush Rate).
EP08A	EU24	CE-10	Meal Dryer Deck #2	1,314,000	0.0063	0.0063	lb/ton of crush	PM EF (see "Stack Test Data" sheet; 95th percentile value); PM10 = assumed equal to PM based on other testing.	Cyclone Controlled factor	Included in EF	Included in EF	100%	4.149	4.149	c	Thruput = total beans processed (Crush Rate).
EP09A	EU24A	CE-10A	Meal Dryer Deck #3	1,314,000	0.0063	0.0063	lb/ton of crush	PM/PM10 EF - assumed equal to EF for Dryer Deck #2	Controlled factor	Included in EF	Included in EF	100%	4.149	4.149	c	Thruput = total beans processed (Crush Rate).
EP10	EU25	CE-11	Meal Cooler Deck	1,314,000	0.0018	0.0018	lb/ton of crush	PM EF (see "Stack Test Data" sheet; 95th percentile value); PM10 = assumed equal to PM based on other testing.	Controlled factor	Included in EF	Included in EF	100%	1.158	1.158	c	Thruput = total beans processed (Crush Rate).
EP11	EU26	BH-2A	Meal Conveyor	1,051,200	0.0610	#####	lb/ton of meal produced	AP-42; Table 9.9.1-1; Grain handling; 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.164	0.091	a	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP11	EU27 & EU28	BH-2A	Meal Grinder & Meal Sifter	1,314,000	0.0035	0.0035	lb/ton of crush	PM/PM10 EF based on stack test from similar unit at another facility (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	2.278	2.278	c	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP11	EU29	BH-2A	Meal Storage Conveyor	1,051,200	0.0610	0.0340	lb/ton of meal produced	AP-42; Table 9.9.1-1; Grain handling; 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.164	0.091	a	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP30A & EP30B	EU30	BH-30A & BH-30B	Meal Storage (2 Tanks)	1,051,200	0.0250	0.0063	lb/ton of meal produced	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.067	0.017	a	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP31	EU31	BH-31	Meal Surge Tanks (2 Tanks)	1,051,200	0.0250	0.0063	lb/ton of meal produced	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.067	0.017	a	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP31	EU32	BH-31	Hull Surge Tank	91,980	0.0250	0.0063	lb/ton of hulls processed	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.006	0.001	a	Thruput = total hulls produced; hulls produced = crush x hull factor (see "Constants" tab).
	EU33		Mixing Conveyor	1,143,180								0.000	0.000		Thruputs = Crush Rate x (meal-to-crush ratio + hull-to-crush ratio). Conveyor is totally enclosed with no emission point, therefore no emissions.	
EP12	EU34 & EU35	ML-1	Truck Meal & Rail Meal Loadout	1,314,000	0.2700	0.1755	lb/ton of crush	PM - AP-42; Table 9.11.1-1; Meal loadout; 11/95; PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Uncontrolled factor	99.49%	99.49%	95%	0.859	0.559	a	Baseline thruput from plant records; for CHA and FA thruputs = Crush Rate x (meal-to-crush ratio + hull-to-crush ratio)
Fugitive	EU34 & EU35	Fugitive	Truck Meal & Rail Meal Loadout	1,314,000	0.2700	0.1755	lb/ton of crush	PM - AP-42; Table 9.11.1-1; Meal loadout; 11/95; PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Uncontrolled factor	0.00%	0.00%	95%	8.870	5.765	b	

**Appendix A: Emission Calculations**  
**PM-PM10 Emissions**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

EP ID(s)	EU ID(s)	CE ID(s)	Description	Potential Throughput (tpy)	Emission Factors			Emission Factor Basis / Source	Controls	Control Efficiency (%)		Capture Efficiency (%)	Potential Emissions (tpy)		Methodology	Comments
					PM	PM10	Units			PM	PM10		PM	PM10		
EP13	EU36	MC-1	Meal Clay Storage	6,570	0.5714	0.4000	lb/ton of clay rec'd	WebFIRE; SCC 3-05-009-05; Raw clay transfer. PM10 assumed to equal 70% of PM ( minimum value from AP42; Table B.2.2; Category 4; 9/90).	Uncontrolled factor	99.49%	99.49%	100%	0.010	0.007	a	Thruput = total meal clay used; meal clay = crush x meal clay factor (see "Constants" tab).
EP14	EU37	RCB	Refinery Clay Storage	4,500	0.5714	0.4000	lb/ton of clay rec'd	WebFIRE; SCC 3-05-009-05; Raw clay transfer. PM10 assumed to equal 70% of PM ( minimum value from AP42; Table B.2.2; Category 4; 9/90).	Uncontrolled factor	99.49%	99.49%	100%	0.007	0.005	a	Thruput = total bleach clay used; bleach clay = oil processed x bleach clay factor (see "Constants" tab).
	EU38		Hexane Bubble	---								0.000	0.000		No particulate emissions from EU38 (Hexane Bubble). See Hexane Emissions tab for VOC calculations.	
EP15	EU39		Boiler #1	---											See Package Boiler Emissions tab.	
EP17	EU41		Boiler #3	---											See Package Boiler Emissions tab.	
EP18	EU42		Refinery Boiler	---											See Package Boiler Emissions tab.	
EP24	EU-43	CE-21	Bean Cleaner	1,314,000	0.7500	0.1900	lb/ton of beans processed	AP-42; Table 9.9.1-1; Grain Cleaning (converted to an uncontrolled factor assuming 90% control eff.); 3/2003.	Uncontrolled factor	99.00%	99.00%	100%	4.928	1.248		Bean cleaner use unrelated to crush; need for cleaning is based only on properties of raw matl.
EP44	EU44	CE44	Vertical Seed Conditioner (bean heater)	1,314,000	0.0010	0.0010	lb/ton of crush	PM/PM10 EF based on stack test from bean heater at another facility (see "Stack Test Data" sheet; 95th percentile value).	Controlled factor	Included in EF	Included in EF	100%	0.657	0.657	c	Thruput = total beans processed (Crush Rate).
EP45	EU45		Cooling Tower												See Cooling Tower Emissions Tab	
EP46	EU46		Boiler #4	---											See Package Boiler Emissions tab.	
EP19	EU47	RC2	Silica Clay Storage	450	0.5714	0.4000	lb/ton of clay rec'd	WebFIRE; SCC 3-05-009-05; Raw clay transfer. PM10 assumed to equal 70% of PM ( minimum value from AP42; Table B.2.2; Category 4; 9/90).	Uncontrolled factor	99.49%	99.49%	100%	0.001	0.000	a	Thruput = total filter aid used; filter aid = oil processed x filter aid factor (see "Constants" tab).
EP48	EU48		6 Ccooling Towers												See Cooling Tower Emissions Tab	
EP49	EU49		Fire Pump (existing)												See Fire Pump Engines Tab	
			Other insignificant Activities									0.500	0.500		Assume half a ton per year PM/PM10 emissions.	

\*PM/PM10 emissions calculated in this table include Railcar Stockpiling.

**Total 213.251 85.495**

**Methodology**

- a. Potential Emissions (tons/yr) = Throughput (tons/yr) x EF (lb/ton) x (Capture Efficiency) x (1 - Control Efficiency) x (1 ton/2000 lb)
- b. Potential Emissions (tons/yr) = Throughput (tons/yr) x EF (lb/ton) x (1 - Capture Efficiency) x (1 - Control Efficiency) x (1 ton/2000 lb)
- c. Potential Emissions (tons/yr) = Throughput (tons/yr) x EF (lb/ton) x (Capture Efficiency) x (1 ton/2000 lb)

**Appendix A: Emissions Calculations**  
**326 IAC 6-3 PM Limit Calculations**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

Pursuant to 326 IAC 6-3, the particulate matter from the emission units listed below shall be limited as shown in the following table below based on the following equations:

Interpolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the following equation.

$$E = 4.10 \times (P^{0.67}) \text{ or}$$

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

$$E = 55.0 \times (P^{0.11}) - 40$$

P = process weight rate in tons per hour

process weight rate in tons per hour

E = rate of emission in pounds per hour

rate of emission in pounds per hour

(a) Pursuant to 326 IAC 6-3-2, the particulate emissions from the emission units listed below, during normal operation, shall be limited as follows:

<b>Emission Unit</b>	<b>Process Weight Rate (tons/hr)</b>	<b>Allowable Particulate Emissions (lb/hr)</b>
Rail Unloading, EU01	400	66.3
Truck Unloading, EU02	720	73.4
Grain elevator, EU03	720	73.4
Conveyor to grain storage, EU04	1,200	80
Concrete silo top vents, EU05	720	73.4
Steel storage tank vents, EU06	720	73.4
Conveyor from grain storage, EU07	225	59.8
Grain Dryer, EU08	180	57.4
Grain Cleaner, EU09	180	57.4
Bean Dryer, EU10	122	53.3
Cracking Rolls, EU11	180	57.4
Hull Separator, EU12	180	57.4
Conditioner, EU13	180	57.4
Flaking, EU14	172	56.9
Hull Screen, EU16	14	24
Hull Grinder, EU17	14	24
Hull Storage Unit, EU18	14	24
Pellet Mill, EU20	14	24
Pellet Cooler, EU21	14	24
Pellet Storage Unit, EU22	14	24
Dryer Deck #1, EU23	172	55.1
Dryer Deck #2, EU24	172	55.1
Dryer Deck #3, EU24A	172	55.1
Cooler Deck, EU25	172	55.1
Meal Conveyor, EU26	136	54.4
Meal sifter, EU27	136	54.4
Meal grinder, EU28	136	54.4
Meal storage conveyor, EU29	136	54.4
Meal storage tank, EU30	136	54.4
Meal surge tanks, EU31	300	63
Hull surge tank, EU32	100	51.3
Truck Meal & Hull Pellet loadout, EU34	250	61
Rail Meal & Hull Pellet loadout, EU35	250	61
Meal clay storage, EU36	25	35.4
Refinery clay storage, EU37	25	35.4
Bean cleaner, EU43	180	57.4
Vertical Seed Conditioner, EU44	180	57.4

**Appendix A: Emissions Calculations**  
**326 IAC 6-3 PM Limit Calculations**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

(b) Pursuant to 326 IAC 6-3-2, the particulate emissions from the following processes, when soybean meal is stockpiled in railcars during the plant's shutdowns, shall be limited as follows:

<b>Emission Unit</b>	<b>Process Weight Rate (tons/hr)</b>	<b>Allowable Particulate Emissions (lb/hr)</b>
Rail/Truck Receiving (EU01 and EU02)	400	66.3
Grain/Meal Elevator (EU03)	720	73.4
Conveyor to Meal Storage Tanks	136	54.4
Meal Storage Tanks (EU30)	136	54.4
Meal Surge Tanks (EU31)	300	63
Rail/Truck Meal Loadout (EU34 and	250	61

## Appendix A: Emissions Calculations

Natural Gas and Distillate and No. 2 Oil Combustion Emissions  
Boilers-MMBtu/hr<100

Company Name: Archer Daniels Midland Company - Frankfort

Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041

Operation Permit Renewal No.: T023-26991-00011

Plant ID: 023-00011

Reviewer: Jean Boling

Date: 9/15/2008

Unit ID	Description	Boiler Capacity (mmbtu/hr)	Emission Factors						Emissions					
			PM lb/MMBtu	PM <sub>10</sub> lb/MMBtu	NO <sub>x</sub> lb/MMBtu	SO <sub>2</sub> lb/MMBtu	CO lb/MMBtu	VOC lb/MMBtu	PM (tpy)	PM <sub>10</sub> (tpy)	NO <sub>x</sub> (tpy)	SO <sub>2</sub> (tpy)	CO (tpy)	VOC (tpy)
EU39	Boiler #1 NG	62.5	0.0019	0.0075	0.1000	0.0006	0.0840	0.0055	0.52	2.04	27.38	0.16	23.00	1.51
	Boiler #1 Vegetable Oil	62.5	0.07	0.07	0.1776	0.001	0.0047	0.0016	19.16	19.16	48.62	0.27	1.29	0.43
	Boiler #1 Distillate	62.5	0.0236	0.0164	0.1429	0.5000	0.03571	0.0014	6.45	4.50	39.11	136.88	9.78	0.39
	<b>EU39 Worst Case Potential to Emit</b>								19.16	19.16	48.62	136.88	23.00	1.51
EU41	Boiler #3 NG	82.5	0.0019	0.0075	0.1000	0.0006	0.0840	0.0055	0.69	2.69	36.14	0.22	30.35	1.99
	Boiler #3 Vegetable Oil	82.5	0.07	0.07	0.1776	0.001	0.0047	0.0016	25.29	25.29	64.18	0.36	1.70	0.56
	Boiler #3 Distillate	82.5	0.0236	0.0164	0.1429	0.5000	0.03571	0.0014	8.52	5.94	51.62	180.68	12.91	0.52
	<b>EU41 Worst Case Potential to Emit</b>								25.29	25.29	64.18	180.68	30.35	1.99
EU42	Refinery Boiler NG	13	0.0019	0.0075	0.1000	0.0006	0.0840	0.0055	0.11	0.42	5.69	0.03	4.78	0.31
	Refinery Boiler Distillate	13	0.0236	0.0164	0.1429	0.5000	0.03571	0.0014	1.34	0.94	8.13	28.47	2.03	0.08
	<b>EU42 Worst Case Potential to Emit</b>								1.34	0.94	8.13	28.47	4.78	0.31
EU46	Boiler #4 NG	145	0.0019	0.0075	0.1000	0.0006	0.1169	0.0055	1.21	4.73	63.51	0.38	74.25	3.49
	Boiler #4 Vegetable Oil	140	0.07	0.07	0.1776	0.001	0.0047	0.0016	42.92	42.92	108.90	0.61	2.88	0.95
	Boiler #4 Distillate	140	0.0236	0.0164	0.09	0.0561	0.1108	0.0014	14.45	10.07	55.19	34.38	67.94	0.88
	<b>EU46 Worst Case Potential to Emit</b>								42.92	42.92	108.90	34.38	74.25	3.49
<b>Total Worst Case Emissions from Boilers</b>									<b>88.72</b>	<b>88.32</b>	<b>229.83</b>	<b>380.40</b>	<b>132.38</b>	<b>7.30</b>

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

\*\*Emission Factors for NO<sub>x</sub>: Uncontrolled = 100, Low NO<sub>x</sub> Burner = 50, Low NO<sub>x</sub> Burners/Flue gas recirculation = 32

### Methodology

1 gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

Potential Distillate Oil Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MMBtu

Potential Natural Gas Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Natural Gas Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Fuel Oil Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

Potential Emissions from n.g. combustion (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Potential Emissions from fuel oil combustion (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

**Appendix A: Emissions Calculations****Natural Gas and Distillate and No. 2 Oil Combustion Emissions  
Boilers-MMBtu/hr<100****Company Name: Archer Daniels Midland Company - Frankfort****Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041****Operation Permit Renewal No.: T023-26991-00011****Plant ID: 023-00011****Reviewer: Jean Boling****Date: 9/15/2008****HAPs - Organics (Natural Gas Combustion)**

Natural Gas Emission Factor in lb/MMCF	Benzene 2.1E-03	Dichloro 1.2E-03	Formalde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.182E-04	1.818E-04	1.136E-02	2.727E-01	5.151E-04

**HAPs - Metals (Natural Gas Combustion)**

Natural Gas Emission Factor in lb/MMCF	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	<b>Total</b>
Potential Emission in tons/yr	7.575E-05	1.667E-04	2.121E-04	5.757E-05	3.182E-04	<b>0.29</b>

Methodology is the same as page 5.

The five highest organic and metal HAPs emission factors are provided above.

Additional HAPs emission factors are available in AP-42, Chapter 1.4.

**HAPs - Metals (Distillate Fuel Oil Combustion)**

Distillate Fuel Oil Emission Factor in lb/MMBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	5.309E-03	3.981E-03	3.981E-03	3.981E-03	1.194E-02

**HAPs - Metals (continued) (Distillate Fuel Oil Combustion)**

Distillate Fuel Oil Emission Factor in lb/MMBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05	<b>Total</b>
Potential Emission in tons/yr	3.98E-03	7.96E-03	3.98E-03	1.99E-02	<b>0.07</b>

**Methodology**

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/yr) = Throughput (MMBtu/hr) x Emission Factor (lb/MMBtu) x 8,760 hrs/yr / 2,000 lb/ton

**Appendix A: Emissions Calculations**  
**326 IAC 6-2 PM Limit Calculations**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

**Boiler #1 (EU39)**

Year boiler was/will be installed: 1960

Calculate the limit pursuant to 326 IAC 6-2-3:

$$Pt = (CXaXh) / (76.5 X(Q^{0.75})(N^{0.25}))$$

C = 50 micrograms per cubic meter (maximum ground level concentration of PM with respect to distance from the point source at the "critical" wind speed for level terr  
 Q = 62.5 total heat input capacity of source (MMBtu/hr)  
 N = 1 number of stacks  
 a = 0.67 plume rise factor (use 0.67 for Q less than 1000 MMBtu/hr and 0.8 for Q greater than 1000 MMBtu/hr)  
 h = 39 ft --- stack height (if more than one stack, use a weighted average of stack heights according to PM emissions)

Pt = 0.77 lb PM emitted/MMBtu heat input

Pursuant to 326 IAC 6-2-3(d) and (e), the limit cannot exceed 0.6 or 0.8 MMBtu/hr of heat input, depending on the date installed.  
**(use 0.6 for facilities < 250 MMBtu/hr that began operation after June 8, 1972, or use 0.8 for facilities existing and in operation on or before June 8, 1972)**

Insert the calculated PM limit from above or, if the calculated limit exceeds the appropriate maximum limit listed in 326 IAC 6-2-3, insert the maximum limit instead.

0.77 lb/MMBtu x 62.5 MMBtu/hr = 48.13 lbs/hr = 210.79 tons/yr

**Boiler #3 (EU41)**

Year boiler was/will be installed: 1992

Calculate the limit pursuant to 326 IAC 6-2-4:

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

Q = 82.5 total heat input capacity of source (MMBtu/hr)  
 Pt = 0.35 lb PM emitted/MMBtu heat input

Pursuant to 326 IAC 6-2-3(d) and (e), the limit cannot exceed 0.6 or 0.8 MMBtu/hr of heat input, depending on the date installed.  
**(use 0.6 for facilities < 250 MMBtu/hr that began operation after June 8, 1972, or use 0.8 for facilities existing and in operation on or before June 8, 1972)**

Insert the calculated PM limit from above or, if the calculated limit exceeds the appropriate maximum limit listed in 326 IAC 6-2-3, insert the maximum limit instead.

0.35 lb/MMBtu x 82.5 MMBtu/hr = 28.88 lbs/hr = 126.47 tons/yr

**Appendix A: Emissions Calculations**  
**326 IAC 6-2 PM Limit Calculations**

Company Name: Archer Daniels Midland Company - Frankfort  
 Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041  
 Operation Permit Renewal No.: T023-26991-00011  
 Plant ID: 023-00011  
 Reviewer: Jean Boling  
 Date: 9/15/2008

**Refinery Boiler (EU42)**Year boiler was/will be installed: 

Calculate the limit pursuant to 326 IAC 6-2-4:

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

$$Q = \text{13} \text{ total heat input capacity of source (MMBtu/hr)}$$

$$Pt = \text{0.56} \text{ lb PM emitted/MMBtu heat input}$$

Pursuant to 326 IAC 6-2-3(d) and (e), the limit cannot exceed 0.6 or 0.8 MMBtu/hr of heat input, depending on the date installed.

**(use 0.6 for facilities < 250 MMBtu/hr that began operation after June 8, 1972, or use 0.8 for facilities existing and in operation on or before June 8, 1972)**

Insert the calculated PM limit from above or, if the calculated limit exceeds the appropriate maximum limit listed in 326 IAC 6-2-3, insert the maximum limit instead.

$$\text{0.56} \text{ lb/MMBtu} \times \text{13 MMBtu/hr} = \text{7.28} \text{ lbs/hr} = \text{31.89} \text{ tons/yr}$$

**Boiler #4 (EU46)**Year boiler was/will be installed: 

Calculate the limit pursuant to 326 IAC 6-2-4:

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

$$Q = \text{145} \text{ total heat input capacity of source (MMBtu/hr)}$$

$$Pt = \text{0.30} \text{ lb PM emitted/MMBtu heat input}$$

Pursuant to 326 IAC 6-2-3(d) and (e), the limit cannot exceed 0.6 or 0.8 MMBtu/hr of heat input, depending on the date installed.

**(use 0.6 for facilities < 250 MMBtu/hr that began operation after June 8, 1972, or use 0.8 for facilities existing and in operation on or before June 8, 1972)**

Insert the calculated PM limit from above or, if the calculated limit exceeds the appropriate maximum limit listed in 326 IAC 6-2-3, insert the maximum limit instead.

$$\text{0.3} \text{ lb/MMBtu} \times \text{145 MMBtu/hr} = \text{43.50} \text{ lbs/hr} = \text{190.53} \text{ tons/yr}$$

**Appendix A: Emissions Calculations**  
**Hexane Emissions from Hexane Bubble**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

Parameter	Value	Units	Basis
Maximum Throughput	= 1,314,000	tpy	120,000 bu/day @ 60 lb/bu
Hexane Density	= 5.63	lb/gal	Industry standard factor.
Solvent Loss Ratio	= 0.179	gal/ton	BACT Limit
Solvent Loss Rate	= 662.10	tpy	Solvent Loss Ratio * Hexane Density * Maximum Throughput/(2,000 lbs/ton)
HAP Fraction (n-Hexane)	= 64%	wt. %	Industry standard factor (for example, see 40 CFR 63, Subpart GGGG)
HAP Potential Emissions	= 423.75	tpy	Solvent Loss Rate * HAP Fraction

**HAP Emissions**

Main Vent Ctrl. Eff.	= 99%	%	Mineral Oil Scrubber w/Condenser Efficiency
Main Vent Fxn. (uncontrolled)	= 73.84	%	Percent Emissions from Main Vent
Dryer/Cooler Vent Fxn.	= 6.88	%	Percent Emissions from Dryer/Cooler
Fugitives Fxn.	= 19.28	%	Percent Emissions from Fugitive
Main Vent Fxn. (controlled)	= 0.74	%	Main Vent Fxn. (uncontrolled) x 1 - Main Vent Ctrl. Eff.
Dryer/Cooler Emissions	= 108.4	tpy	HAP Potential Emissions x Dryer/Cooler Vent Function / (Dryer/Cooler Vent Fxn + Fugitive Fxn + Main Vent Fxn)
Fugitive Emissions	= 303.7	tpy	HAP Potential Emissions x Fugitive Fxn / (Dryer/Cooler Vent Fxn + Fugitive Fxn + Main Vent Fxn)
Main Vent Emissions	= 11.6	tpy	HAP Potential Emissions x Main Vent Function (controlled / (Dryer/Cooler Vent Fxn + Fugitive Fxn + Main Vent Fxn)

The HAP information above was obtained from the calculations from SSM 023-24843-00011/SPM 023-25870-00011 and Appendix B to the TSD BACT Determination, Table 1.

**VOC Emissions**

Main Vent Ctrl. Eff.	= 99%	%	Mineral Oil Scrubber w/Condenser Efficiency
Main Vent Fxn. (uncontrolled)	= 73.84	%	Percent Emissions from Main Vent
Dryer/Cooler Vent Fxn.	= 6.88	%	Percent Emissions from Dryer/Cooler
Fugitives Fxn.	= 19.28	%	Percent Emissions from Fugitive
Main Vent Fxn. (controlled)	= 0.74	%	Main Vent Fxn. (uncontrolled) x 1 - Main Vent Ctrl. Eff.
Dryer/Cooler Emissions	= 169.4	tpy	VOC Potential Emissions x Dryer/Cooler Vent Function / (Dryer/Cooler Vent Fxn + Fugitive Fxn + Main Vent Fxn)
Fugitive Emissions	= 474.6	tpy	VOC Potential Emissions x Fugitive Fxn / (Dryer/Cooler Vent Fxn + Fugitive Fxn + Main Vent Fxn)
Main Vent Emissions	= 18.2	tpy	VOC Potential Emissions x Main Vent Function (controlled / (Dryer/Cooler Vent Fxn + Fugitive Fxn + Main Vent Fxn)

The VOC information above was obtained using the main vent, fugitive and dryer/cooler functions for the HAP information obtained from the calculations from SSM 023-24843-00011/SPM 023-25870-00011 and Appendix B to the TSD BACT Determination, Table 1.

## Appendix A: Emissions Calculations

## Cooling Towers

Company Name: Archer Daniels Midland Company - Frankfort

Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041

Operation Permit Renewal No.: T023-26991-00011

Plant ID: 023-00011

Reviewer: Jean Boling

Date: 9/15/2008

Unit ID	Description	Cooling Water Flow Rate (gpm)	Total Dissolved Solids (ppmw)	Drift Factor (%)	Hours of Operation (hrs/yr)	PM/PM <sub>10</sub> (lb/hr)	PM/PM <sub>10</sub> (tpy)	
EU45	Cooling Tower	1500	4000	0.001%	8760	0.030	0.132	
EU48	6 Cooling Towers (existing)	Marley NC 9161	2315	4000	0.005%	8760	0.232	1.015
		Marley NC 9161	2315	4000	0.005%	8760	0.232	1.015
		Marley NC 9161	2315	4000	0.005%	8760	0.232	1.015
		Marley 8619	1925	4000	0.005%	8760	0.193	0.844
		Marley NC 722	1500	4000	0.005%	8760	0.150	0.658
		Marley NC 722	1500	4000	0.005%	8760	0.150	0.658
<b>Total Emissions from Cooling Towers (tons/yr)</b>						<b>1.218</b>	<b>5.335</b>	

\*PM<sub>10</sub> = PM (worse case)

\*\*Cooling tower drift factors were obtained from the cooling tower manufacturer (Marley).

**Methodology**

Throughput (lbs/hr) = Cooling Water Flow Rate x 60 min/hr x 8.34 x Drift Factor x Total Dissolved Solids parts/million by weight / 1000000

Potential Emissions (tons/yr) = Throughput (lbs/hr) x Hours of Operation (hrs/yr) / 2000 lbs/ton

## Appendix A: Emissions Calculations

## Fire Pump Engines

Company Name: Archer Daniels Midland Company - Frankfort

Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041

Operation Permit Renewal No.: T023-26991-00011

Plant ID: 023-00011

Reviewer: Jean Boling

Date: 9/15/2008

Unit ID	Description	HP (bhp)	Operating Hours (hrs/yr)	Emission Factors						Potential to Emit									
				PM (lb/bhp-hr)	PM10 (lb/bhp-hr)	NOx (lb/bhp-hr)	SO2 (lb/bhp-hr)	CO (lb/bhp-hr)	VOC (lb/bhp-hr)	PM/PM <sub>10</sub> (lb/hr)	PM/PM <sub>10</sub> (tpy)	NOx (lb/hr)	NOx (tpy)	SO2 (lb/hr)	SO2 (tpy)	CO (lb/hr)	CO (tpy)	VOC (lb/hr)	VOC (tpy)
EU49	Fire Pump (existing) Model # NT280 230 bhp @ 2100 RPM	230	500	0.0022	0.0022	0.031	0.00205	0.00668	0.002514	0.51	0.127	7.13	1.783	0.47	0.118	1.54	0.384	0.58	0.145
<b>Total Emissions from Generators (tons/yr)</b>										<b>0.51</b>	<b>0.13</b>	<b>7.13</b>	<b>1.78</b>	<b>0.47</b>	<b>0.12</b>	<b>1.54</b>	<b>0.38</b>	<b>0.58</b>	<b>0.14</b>

\*PM<sub>10</sub> = PM (worst case)

\*\*Diesel Engine Emission Factors are from AP 42, Tables 3.3-1, 1.3-2, (SCC 2-02-001-02, 2-03-001-01)

**Methodology**

Throughput (lbs/hr) = Engine Horse Power bhp x Emission Factor lb/bhp-hr

Potential Emissions (tons/yr) = Throughput (lbs/hr) x Operating Hours (hrs/yr) / 2000 lbs/ton

**Appendix A: Emissions Calculations**  
**Fugitive PM from Paved Roads**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

Road Description	Travel Distance (miles)		Potential Rate (trucks/yr)	Paved PM EF* (lb/VMT)	Paved PM10 EF* (lb/VMT)	PM Emissions (tpy)	PM10 Emissions (tpy)
	paved	unpaved					
<b>Meal Transportation</b>							
property line to loading	0.25	0.00	30,000	0.06	0.01	0.23	0.04
loading to property line	0.14	0.00	30,000	0.33	0.06	0.68	0.13
<b>Oil Transportation</b>							
property line to loading	0.09	0.00	7,884	0.06	0.01	0.02	0.00
loading to property line	0.21	0.00	7,884	0.33	0.06	0.28	0.05
<b>Raw Material Transportation</b>							
property line to unloading	0.59	0.00	48,000	0.33	0.06	4.69	0.91
unloading to property line	0.18	0.00	48,000	0.06	0.01	0.27	0.05
<b>Total Fugitive Emissions from Roads</b>						<b>6.16</b>	<b>1.20</b>

Constants	Value	Units	Basis
Truck Empty Weight	13	tons	
Truck Full Weight	40	tons	
Fraction of Oil by Truck	50%	wt. %	
Fraction of Meal by Truck	50%	wt. %	
Rainy Days	130	days/yr	AP42, Figure 13.2.1-2; 11/2006 Version.
Days in Period	365	days/yr	
Paved Road Silt Loading	1.5	g/m <sup>2</sup>	
Unpaved Road Silt Fraction	8	wt. %	
Unpaved TSP particle size factor (k)	4.9	lb/VMT	
Unpaved PM10 particle size factor (k)	1.5	lb/VMT	
Unpaved TSP "a" constant	0.7		
Unpaved TSP "b" constant	0.45		
Unpaved PM10 "a" constant	0.9		
Unpaved PM10 "b" constant	0.45		
Paved TSP particle size factor (k)	0.082	lb/VMT	
Paved PM10 particle size factor (k)	0.016	lb/VMT	
Brake wear emission factor	0.00047	lb/VMT	

\*Paved road emissions estimated using Equations in AP-42, Section 13.2.1 (12/03 Version) adjusted based on testing at ADM's Columbus & Marshall corn wet mills.

**Appendix A: Emissions Calculations**  
**Railcar Stockpiling**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

**Maximum Meal Production For Railcar  
Stockpiling**

1,143,180 tons/year

Process/Facility	Emission Factor (lb/ton)		Uncontrolled PTE (tons/year)	
	PM	PM10	PM	PM10
Truck/Rail Receiving (EU-01, EU-02)	0.0350	0.0078	20.01	4.46
Truck/Rail Receiving - Fugitive (EU-01, EU-02)	0.0350	0.0078	2.00	0.45
Grain/Meal Elevator (EU-03)	0.0610	0.0340	34.87	19.43
Conveyor to Meal Storage Tanks	0.0610	0.0340	34.87	19.43
Meal Storage Tanks (EU-30)	0.0250	0.0063	14.29	3.60
Meal Surge Tanks (EU-31)	0.0250	0.0063	14.29	3.60
Truck/Rail Meal Loadout (EU-34 & EU-35)	0.2700	0.1755	154.33	100.31
Truck/Rail Meal Loadout - Fugitive (EU-34 & EU-35)	0.2700	0.1755	7.72	5.02
<b>TOTAL</b>			<b>282.37</b>	<b>156.30</b>

PM10 Emission Factors for the Truck/Rail Meal Loadout were estimated by taking 65% of the PM Emission Factor.

Fugitive from grain/meal receiving is based on 10% escaping from the dump pit and not being captured by the baghouse

Fugitive from the Truck/Rail Meal Loadout is based on 5% escaping and not being captured by the baghouse

Process/Facility	Control Device	Capture Efficiency	Control Efficiency		Controlled PTE (tons/year)	
			PM	PM10	PM	PM10
Truck/Rail Receiving (EU-01, EU-02)	Baghouse	90%	99%	99%	2.18	0.49
Truck/Rail Receiving - Fugitive (EU-01, EU-02)	None	10% fugitive	0%	0%	2.00	0.45
Grain/Meal Elevator (EU-03)	Baghouse	100%	99.49%	99.49%	0.18	0.10
Conveyor to Meal Storage Tanks	Baghouse	100%	99.49%	99.49%	0.18	0.10
Meal Storage Tanks (EU-30)	Baghouse	100%	99.49%	99.49%	0.07	0.02
Meal Surge Tanks (EU-31)	Baghouse	100%	99.49%	99.49%	0.07	0.02
Truck/Rail Meal Loadout (EU-34 & EU-35)	Baghouse	95%	99.49%	99.49%	0.20	0.11
Truck/Rail Meal Loadout - Fugitive (EU-34 & EU-35)	None	5% fugitive	0%	0%	7.72	5.02
<b>TOTAL</b>					<b>12.60</b>	<b>6.30</b>

Emission Factors for PM and PM10 were taken from the AP-42 Table 9.9.1-1 and Table 9.11.1-1

**Appendix A: Emissions Calculations**  
**Railcar Stockpiling - Continued**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

**Limited Meal for Railcar Stockpiling****100,000 tons/year**

TABLE 1 Process/Facility	Emission Factor (lb/ton)		Uncontrolled PTE (tons/year)		Control Device	Capture Efficiency	Control Efficiency		Controlled PTE (tons/year)	
	PM	PM10	PM	PM10			PM	PM10	PM	PM10
Truck/Rail Receiving (EU01, EU02)	0.0350	0.0078	1.75	0.39	Baghouse	90%	99%	99%	2.18	0.49
Truck/Rail Receiving - Fugitive (EU01, EU02)	0.0350	0.0078	0.18	0.04	None	10% fugitive	0%	0%	2.00	0.45
Grain/Meal Elevator (EU03)	0.0610	0.0340	3.05	1.70	Baghouse	100%	99.49%	99.49%	0.18	0.10
Conveyor to Meal Storage Tanks (EU28A)	0.0610	0.0340	3.05	1.70	Baghouse	100%	99.49%	99.49%	0.18	0.10
Meal Storage Tanks (EU30)	0.0250	0.0063	1.25	0.32	Baghouse	100%	99.49%	99.49%	0.07	0.02
Meal Surge Tanks (EU31)	0.0250	0.0063	1.25	0.32	Baghouse	100%	99.49%	99.49%	0.07	0.02
Truck/Rail Meal Loadout (EU34 & EU35)	0.2700	0.1755	13.50	8.78	Baghouse	95%	99.49%	99.49%	0.42	0.28
Truck/Rail Meal Loadout - Fugitive (EU34 & EU35)	0.2700	0.1755	0.68	0.44	None	5% fugitive			15.49	8.57
<b>TOTAL</b>			<b>24.70</b>	<b>13.67</b>					<b>20.59</b>	<b>10.01</b>

PM10 and PM2.5 Emission Factors for the Truck/Rail Meal Loadout were estimated by taking 25% and 2% respectively of the PM Emission Factor.

Fugitive from grain/meal receiving is based on 10% escaping from the dump pit and not being captured by the baghouse

Fugitive from the Truck/Rail Meal Loadout is based on 5% escaping and not being captured by the baghouse

TABLE 2 Process/Facility	Control Device	Capture Efficiency	Control Efficiency		Controlled PTE (tons/year)	
			PM	PM10	PM	PM10
Truck/Rail Receiving (EU-01, EU-02)	Baghouse	90%	99%	99%	0.19	0.04
Truck/Rail Receiving - Fugitive (EU-01, EU-02)	None	10% fugitive	0%	0%	0.18	0.04
Grain/Meal Elevator (EU-03)	Baghouse	100%	99.49%	99.49%	0.02	0.01
Conveyor to Meal Storage Tanks	Baghouse	100%	99.49%	99.49%	0.02	0.01
Meal Storage Tanks (EU-30)	Baghouse	100%	99.49%	99.49%	0.01	0.00
Meal Surge Tanks (EU-31)	Baghouse	100%	99.49%	99.49%	0.01	0.00
Truck/Rail Meal Loadout (EU-34 & EU-35)	Baghouse	95%	99.49%	99.49%	0.74	0.48
Truck/Rail Meal Loadout (EU-34 & EU-35) Fugitive)	None	5% fugitive			0.04	0.02
<b>TOTAL</b>					<b>1.19</b>	<b>0.61</b>

Emission Factors were taken from the AP-42 Table 9.9.1-1 and Table 9.11.1-1

Soybean meal produced will be stockpiled into railcars in order that the plant can continue to provide soybean meal to customers

If meal is to be delivered by trucks, the stockpiled meal from the railcars will be unloaded into the existing grain receiving/unloading pits EU01 and EU02, through the elevator leg EU03, and conveyor EU28A, into the storage tanks EU30. Then the soybean meal will be conveyed back to the surge tanks EU31 and through the mixing conveyor EU33 and into the truck meal loadout EU34

**Appendix A: Emission Calculations**  
**PM-PM10 Emissions w/Railcar Stockpiling**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

EP ID(s)	EU ID(s)	CE ID(s)	Description	Potential Throughput (tpy)	Emission Factors			Emission Factor Basis / Source	Controls	Control Efficiency (%)		Capture Efficiency (%)	Potential Emissions (tpy)		Methodology	Comments
					PM	PM10	Units			PM	PM10		PM	PM10		
					EP01	EU02	GR-1			Truck - Point Source	1,444,500		0.0350	0.0078		
EP01F	EU02	Fugitive	Truck (fugitive)	1,444,500	0.0350	0.0078	lb/ton of grain rec'd via truck	AP-42; Table 9.9.1-1; Hopper trucks; 3/2003.	Uncontrolled factor	0.0%	0.0%	90%	2.528	0.563	b	Worst-case PM emissions are from 100% truck receiving.
EP01	EU03	GR-1	Elevator Leg Vents	1,444,500	0.0610	0.0340	lb/ton of grain rec'd	AP-42; Table 9.9.1-1; Grain handling; 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.225	0.125	a	Total beans received (crush + storage capacity = max rare).
EP30A & EP30B	EU30	BH-30A & BH-30B	Meal Storage (2 Tanks)	1,051,200	0.0250	0.0063	lb/ton of meal produced	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.067	0.017	a	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP31	EU31	BH-31	Meal Surge Tanks (2 Tanks)	1,051,200	0.0250	0.0063	lb/ton of meal produced	AP-42; Table 9.9.1-1; Storage Bin (vent); 3/2003.	Uncontrolled factor	99.49%	99.49%	100%	0.067	0.017	a	Baseline thruput from plant records; thruputs = Crush Rate x meal-to-crush ratio.
EP12	EU34 & EU35	ML-1	Truck Meal & Rail Meal Loadout	1,314,000	0.2700	0.1755	lb/ton of beans produced	PM - AP-42; Table 9.11.1-1; Meal loadout; 11/95; PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Uncontrolled factor	99.49%	99.49%	95%	0.859	0.559	a	Baseline thruput from plant records; for CHA and FA thruputs = Crush Rate x (meal-to-crush ratio + hull-to-crush ratio)
Fugitive	EU34 & EU35	Fugitive	Truck Meal & Rail Meal Loadout	1,314,000	0.2700	0.1755	lb/ton of beans produced	PM - AP-42; Table 9.11.1-1; Meal loadout; 11/95; PM10 = 65% of PM (AP42; Table B.2.2; Category 7; 9/90).	Uncontrolled factor	0.00%	0.00%	95%	8.870	5.765	b	

\*PM/PM10 emissions calculated in this table include Railcar Stockpiling.

**Methodology**

- a. Potential Emissions (tons/yr) = Throughput (tons/yr) x EF (lb/ton) x (Capture Efficiency) x (1 - Control Efficiency) x (1 ton/2000 lb)
- b. Potential Emissions (tons/yr) = Throughput (tons/yr) x EF (lb/ton) x (1 - Capture Efficiency) x (1 - Control Efficiency) x (1 ton/2000 lb)
- c. Potential Emissions (tons/yr) = Throughput (tons/yr) x EF (lb/ton) x (Capture Efficiency) x (1 ton/2000 lb)

**Appendix A: Emissions Calculations  
Constants**

**Company Name: Archer Daniels Midland Company - Frankfort  
Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041  
Operation Permit Renewal No.: T023-26991-00011  
Plant ID: 023-00011  
Reviewer: Jean Boling  
Date: 9/15/2008**

<b>Parameter</b>	<b>Value</b>	<b>Units</b>	<b>Basis</b>
Bean Density	60	lb/bu	Industry Standard Factor
Crush Capacity	120,000	bu/day	Proposed Permit Limit (12-month avg.)
Operating Days	365	days/yr	
Plant Storage Capacity	130,500	tons	Equipment capacity
Hull-to-Crush Ratio	7.0%	wt. %	Industry Standard Factor
Pellet-to-Crush Ratio	7.0%	wt. %	Industry Standard Factor
Meal-to-Crush Ratio	80.0%	wt. %	Frankfort factor.
Meal Clay-to-Crush Ratio	0.50%	wt. %	Based on allowable
Refinery Clay-to-Oil Ratio	1.50%	wt. %	
Vegetable Oil-to-Crush Ratio	11.5	lb/bu	Industry Standard Factor
Grain Dryer Burner Rating	17.5	mmbtu/hr	
MMBTU to MMCF Conversion	0.001		
Refinery Throughput	300,000	tons/yr	
Silica Clay to Oil Ratio	0.15%	wt. %	

**Appendix A: Emissions Calculations**  
**Stack Test Data**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

Description	Source ID	Location	Test Date	Test ID	Pollutant	Method	Emission Rate	Units	Thruput	Units	EF	Units
Hull Grinder	SV-013	Mankato	11/1/2006	1	PM/PM10	202	0.061 lb/hr		12	tph	0.00508	lb/ton
Hull Grinder	SV-013	Mankato	11/2/2006	2	PM/PM10	202	0.047 lb/hr		12	tph	0.00395	lb/ton
Hull Grinder	SV-013	Mankato	11/3/2006	3	PM/PM10	202	0.013 lb/hr		12	tph	0.00111	lb/ton
Average							0.041 lb/hr				0.00338	lb/ton
Std. Dev.							0.025 lb/hr				0.00204	lb/ton
95th percentile							0.081 lb/hr				0.00674	lb/ton
Pellet Cooler	EU-HR03	Des Moines	11/28/2006	1	PM/PM10	UNK	0.250 lb/hr		10.32	tph	0.02423	lb/ton
Pellet Cooler	EU-HR03	Des Moines	11/28/2006	2	PM/PM10	UNK	0.230 lb/hr		9.50	tph	0.02420	lb/ton
Pellet Cooler	EU-HR03	Des Moines	11/28/2006	3	PM/PM10	UNK	0.140 lb/hr		9.50	tph	0.01473	lb/ton
Average							0.207 lb/hr				0.02106	lb/ton
Std. Dev.							0.059 lb/hr				0.00548	lb/ton
95th percentile							0.303 lb/hr				0.03006	lb/ton
Meal Grinding	MP-01	Decatur West	2/6/2003	1	PM	5	0.404 lb/hr		130.5	tph	0.00309	lb/ton
Meal Grinding	MP-01	Decatur West	2/6/2003	2	PM	5	0.420 lb/hr		130.5	tph	0.00322	lb/ton
Meal Grinding	MP-01	Decatur West	2/6/2003	3	PM	5	0.349 lb/hr		130.5	tph	0.00267	lb/ton
Average							0.391 lb/hr				0.00300	lb/ton
Std. Dev.							0.037 lb/hr				0.00029	lb/ton
95th percentile							0.452 lb/hr				0.00347	lb/ton
Escher Wyss Cyclone	EP04	Frankfort, IN	7/8/2005	1	PM	UNK	7.05 lb/hr		78.21	tph	0.09014	lb/ton
Escher Wyss Cyclone	EP04	Frankfort, IN	7/8/2005	2	PM	UNK	7.87 lb/hr		78.21	tph	0.10063	lb/ton
Escher Wyss Cyclone	EP04	Frankfort, IN	7/8/2005	3	PM	UNK	9.54 lb/hr		78.21	tph	0.12198	lb/ton
Average							8.153 lb/hr				0.10425	lb/ton
Std. Dev.							1.269 lb/hr				0.01622	lb/ton
95th percentile							10.241 lb/hr				0.13094	lb/ton
Escher Wyss Bahgouse	GP05	Des Moines	4/29/2003	1	PM/PM10	5+202	0.076 lb/hr		139.8	tph	0.00054	lb/ton
Escher Wyss Bahgouse	GP05	Des Moines	4/29/2003	2	PM/PM10	5+202	0.181 lb/hr		139.5	tph	0.00130	lb/ton
Escher Wyss Bahgouse	GP05	Des Moines	4/30/2003	3	PM/PM10	5+202	0.141 lb/hr		130.5	tph	0.00108	lb/ton
Average							0.133 lb/hr				0.00097	lb/ton
Std. Dev.							0.053 lb/hr				0.00039	lb/ton
95th percentile							0.220 lb/hr				0.00161	lb/ton

**Appendix A: Emissions Calculations**  
**Stack Test Data - Continued**  
**Company Name: Archer Daniels Midland Company - Frankfort**  
**Address City IN Zip: 2191 West County Road, O N/S, Frankfort, IN 46041**  
**Operation Permit Renewal No.: T023-26991-00011**  
**Plant ID: 023-00011**  
**Reviewer: Jean Boling**  
**Date: 9/15/2008**

Description	Source ID	Location	Test Date	Test ID	Pollutant	Method	Emission Rate	Units	Thruput	Units	EF	Units
Bean Heater	SV-069	Mankato	11/3/2006	1	PM/PM10	5+202	0.156 lb/hr		175 tph		0.00089 lb/ton	
Bean Heater	SV-069	Mankato	11/3/2006	2	PM/PM10	5+202	0.132 lb/hr		175 tph		0.00075 lb/ton	
Bean Heater	SV-069	Mankato	11/3/2006	3	PM/PM10	5+202	0.097 lb/hr		175 tph		0.00056 lb/ton	
Average							0.128 lb/hr				0.00073 lb/ton	
Std. Dev.							0.030 lb/hr				0.00017 lb/ton	
95th percentile							0.177 lb/hr				0.00101 lb/ton	
Hull Separator System	EP05	Frankfort, IN	7/7/2005	1	PM	UNK	2.33 lb/hr		78.19 tph		0.02980 lb/ton	
Hull Separator System	EP05	Frankfort, IN	7/7/2005	2	PM	UNK	2.96 lb/hr		78.19 tph		0.03786 lb/ton	
Hull Separator System	EP05	Frankfort, IN	7/7/2005	3	PM	UNK	3.48 lb/hr		78.19 tph		0.04451 lb/ton	
Average							1.054 lb/hr				0.01292 lb/ton	
Std. Dev.							1.432 lb/hr				0.01872 lb/ton	
95th percentile							3.409 lb/hr				0.04371 lb/ton	
DTDC Dryer Deck #1	EP08	Frankfort, IN	12/16/2004	2	PM	UNK	0.006 lb/hr		100.2 tph		0.00006 lb/ton	
DTDC Dryer Deck #1	EP08	Frankfort, IN	12/16/2004	3	PM	UNK	0.013 lb/hr		100.2 tph		0.00013 lb/ton	
Average							0.010 lb/hr				0.00010 lb/ton	
Std. Dev.							0.005 lb/hr				0.00005 lb/ton	
95th percentile							0.017 lb/hr				0.00017 lb/ton	
DTDC Dryer Deck #2	EP09	Frankfort, IN	12/15/2004	1	PM	UNK	0.473 lb/hr		100.4 tph		0.00471 lb/ton	
DTDC Dryer Deck #2	EP09	Frankfort, IN	12/15/2004	2	PM	UNK	0.493 lb/hr		100.4 tph		0.00491 lb/ton	
DTDC Dryer Deck #2	EP09	Frankfort, IN	12/15/2004	3	PM	UNK	0.600 lb/hr		100.4 tph		0.00597 lb/ton	
Average							0.522 lb/hr				0.00520 lb/ton	
Std. Dev.							0.068 lb/hr				0.00068 lb/ton	
95th percentile							0.634 lb/hr				0.00632 lb/ton	
DTDC Cooler Deck	EP10	Frankfort, IN	12/13/2004	1	PM	UNK	0.155 lb/hr		100.4 tph		0.00155 lb/ton	
DTDC Cooler Deck	EP10	Frankfort, IN	12/13/2004	2	PM	UNK	0.161 lb/hr		100.4 tph		0.00160 lb/ton	
DTDC Cooler Deck	EP10	Frankfort, IN	12/13/2004	3	PM	UNK	0.128 lb/hr		100.4 tph		0.00127 lb/ton	
Average							0.148 lb/hr				0.00147 lb/ton	
Std. Dev.							0.018 lb/hr				0.00018 lb/ton	
95th percentile							0.177 lb/hr				0.00176 lb/ton	
Bean Cleaner	EP03	Frankfort, IN	7/8/2005	1	PM	UNK	0.0023 lb/hr		78.21 tph		0.00003 lb/ton	
Bean Cleaner	EP03	Frankfort, IN	7/8/2005	2	PM	UNK	0.0487 lb/hr		78.21 tph		0.00062 lb/ton	
Average							0.026 lb/hr				0.00033 lb/ton	
Std. Dev.							0.033 lb/hr				0.00042 lb/ton	
95th percentile							0.080 lb/hr				0.00102 lb/ton	



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

**TO:** Dennis W. Oberg  
Archer Daniels Midland Company - Frankfort  
P.O. Box 249  
Frankfort, IN 46041

**DATE:** October 29, 2009

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

**SUBJECT:** Final Decision  
Part 70 Operating Permit Renewal  
023-26991-00011

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:  
Gary Stroud  
OAQ Permits Branch Interested Parties List

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

Final Applicant Cover letter.dot 11/30/07



# INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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October 29, 2009

TO: Frankfort Communit Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

**Applicant Name: Archer Daniels Midland Company**  
**Permit Number: 023-26991-00011**

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	GHOTOPP 10/29/2009 Archer Daniels Midland Co-Frankfort 023-26991-00011 Final		Type of Mail:  <b>CERTIFICATE OF MAILING ONLY</b>	AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
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2		Mr. Charles L. Berger Attorney Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)										
3		Frankfort City Council and Mayors Office 301 E. Clinton Street Frankfort IN 46041 (Local Official)										
4		Frankfort Community Public 208 W Clinton Frankfort IN 46041-1899 (Library)										
5		Clinton County Health Department 211 N Jackson St Frankfort IN 46041-1936 (Health Department)										
6		Clinton County Board of Commissioners 125 Courthouse Square Frankfort IN 46041-1942 (Local Official)										
7		Mr. Robert Kelley 2555 S 30th Street Lafayette IN 44909 (Affected Party)										
8		Ms. Beth Brock 6922 Bluffgrove Cir Indianapolis IN 46278 (Affected Party)										
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